

Linking Social Capital to Negative Intergroup Bias in MNEs: Evidence from Global Virtual Teams

Abstract

Social capital is a key concept in explaining the success of network actors in multinational organizations. We argue that bridging and bonding social capital within global teams can be a major source of intergroup bias. We elucidate the role of individuals' network position and group structure in creating negative intergroup bias within a sample of 160 intra-organizational actors, and considerable support for our hypotheses is found. Our findings indicate that high degree of bonding social capital underscores negative perceptions towards out-group members. At the same time, bridging ties within social identity groups - but not between groups – entail more negative attitudes towards out-group members. Finally, higher geographical and cultural distance between team-members are both associated with negative relationships. In turn, these negative perceptions have a damaging effect on perceived individual performance. We conclude that identification with team-members plays an important role in creating social capital as well as negativity within multinational organizations, and that it has been given insufficient attention in the extant literature.

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INTRODUCTION

We analyse the causes and effects of negative intergroup bias in global teams. Extending research on the network-based view of the multinational organization, this research examines the notion that that negative ties (i.e. animosity among team-members) and intergroup bias within global teams are grounded upon three key factors: (i) group's relational structure, (ii) individuals' network position, and (iii) cultural and geographical distance between actors. Consequently, such teams often fail to realize their full potential due to poor group dynamics. Even though research over the past few decades provides ample evidence about diversity and team outcomes, we still have little understanding of the *antecedents* of these detrimental dynamics. Furthermore, much of the previous research on social capital and network ties is based upon a premise that relationships are bounded by geography (i.e. Putnam, Leonardi, & Nanetti, 1993, Laursen et al., 2012); an assumption which excludes MNEs pursuing global strategies by organizing work through transnational teams. Consequently, even though negative interactions and biases are interpersonal in nature, research in international business has largely neglected the role of network ties and informal relationships between global team -members in engendering sub-optimal outcomes. This is an important knowledge gap because negative ties might outweigh potential network benefits, and thereby have a more profound impact on workplace outcomes (Labianca & Brass, 2006). Indeed, cross-cultural conflicts have been cited as one of the biggest challenges in international business (Dong & Liu, 2010; Hennart & Zeng, 2002). Lack of research on negative ties and intergroup bias may have therefore contributed to the overall mixed evidence reported on the effectiveness of multicultural groups (see Stahl et al., 2010 for a recent meta-analysis). We aim to move beyond the traditional diversity-performance debate by investigating the conditions under

which seemingly beneficial ties can induce negative outcomes. Specifically, we analyse structural network configurations which promote negative ties and intergroup bias among team-members embedded within global teams. We respond to the call by authors who claim that future research on networks should focus on social liabilities and negative network effects (e.g. Maurer & Ebers, 2006; Coviello, 2006). we also contribute to recommended future directions of international business studies in three important ways: (i) by highlighting the role of relational assets as a source of competitiveness (Griffith et al., 2008) (ii) advancing exchange between disciplines (Buckley, 2002), and (iii) analysing the interplay between culture and context in cross-border exchanges and collaboration (Brannen & Doz, 2010).

DEVELOPMENT OF HYPOTHESES

Social capital is a key element of network theory (Borgatti & Halgin, 2011). While the concept generally lacks a clear and consistent definition, benefits of social capital are well established; increased salary; better chances of promotion and access to diverse skills and knowledge (Burt, 1997); increased innovation; adaptation, and organizational learning (Tsai & Ghoshal, 1998). These benefits characterize 'the sum of the *actual* and *potential* resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit' (Nahapiet & Ghoshal, 1998, p. 243). We adopt this definition because it includes actual (i.e. information) *and* potential resources (i.e. opportunities) embedded within MNEs, as well as the individual *and* social unit (i.e. identity group) as levels of analysis. Social capital research has identified two main conduits for resource flows: bridging and bonding ties (Adler & Kwon, 2002). Bonding social capital emphasizes close relationships within impermeable group boundaries, while bridging social capital underlines connecting unconnected people in both domestic and international settings. In a group social capital model by Oh et al. (2006), in-group bonding occurs through strong, positive, multiplex, and reciprocated relationships, and in-group bridging via vertical (i.e. connections to supervisors) and

horizontal ties (i.e. connections to the sub-groups). Similarly, intergroup social capital flows through vertical and horizontal ties. In this study, we build upon this model by adding the effects of social identification, intergroup bias, and negative out-group perceptions in the context of MNEs. Oh et al. (2006) suspected that excessive closure may induce in-group and out-group bias and therefore can have a damaging impact on group effectiveness. However, they did not explore these issues in any greater detail. We analyse these effects empirically and shed light on those specific mechanisms and conditions which induce such outcomes (See figure 1 below).

Bonding ties emphasizing conformity and cooperation (Adler & Kwon 2002) are necessary for integrating dissimilar values, norms, and traditions of individuals embedded within global teams. At the same time, they pose constraints and inertia on individual members (Zaheer et al., 2010). For example, shared identity can bind people together so tightly that they fail to perceive new opportunities (Maurer & Ebers, 2006). Excluded members can also be considered psychologically distant and subjected to unethical behaviour (Brass et al., 1998 p.18). Bonding ties thus emphasize positive interactions, attitudes and behaviours within group (Tsui et al., 1992; Chattopadhyay et al., 2004), but also imply salient group boundaries where members belonging to in-group and out-groups are clearly separated. This type of in-group cohesiveness in social identity theory underscores personalization of group members and increased self-esteem (Hogg & Turner, 1985; Tajfel, 1978). Simultaneously, bonding can lead to depersonalization and stereotyping of out-group members as well as polarization of groups into rival camps (Horwitz & Rabbie, 1982; Ashforth & Mael, 1989). For example, as an informal group consisting of Finnish and Swedish individuals becomes increasingly cohesive (a process which would be enhanced, among other things, by low cultural and geographical distance), they may begin to perceive their Japanese and Brazilian team-members increasingly detached and disconnected. People avoid this type of negative perceptions and seek positive reinforcement which reduces potential discord, especially within their close relationships (Newcomb, 1961). Hence, the need for shared perceptions of

“self” can lead to increasingly positive perceptions of in-group members and unfavourable impressions of out-group members (Shah et al., 1998). Thus:

Hypothesis 1. Individuals develop increasingly negative perceptions of out-group members as their social identity group becomes closed.

Additionally, discord within the group may be reflected to other employees outside the social identity group (i.e. “negativity breeds more negativity” Barsade, 2002). In other words, numerous negative ties within groups make it difficult to avoid negative information, build coherent self-cognitions, and enhance self-esteem. For example, when a core identity group becomes a source of anxiety and frustration, it is likely that stress and alienation between individuals will spread throughout the whole networked organization. Hence, we hypothesise that:

Hypothesis 2. Individuals develop increasingly negative perceptions of out-group members as the density of negative ties within their social identity group grows.

Reciprocity is a key mechanism in social interactions as it supports and maintains social equilibrium and relational cohesion (Simmel, 1950). It depicts the tendency towards two-way interaction such as returning favours and advice to team-members. Reciprocity represents the extent to which actors are connected to each other through relational obligations and mutual dependence (Gouldner, 1960).

Reciprocity is an important aspect of social capital (Oh et al., 2006) as well as knowledge transfer within and between MNEs (Eapen, 2012). According to the so called in-group reciprocity hypothesis (Rabbie et al., 1989), discrimination of out-group members stems from the self-interest-based desire to maximize favourable in-group allocation of resources (Gaertner & Insko, 2000). Tight informal ties among team-members may imply commitments and obligations to sharing resources and information with in-group members, instead of team-members who could most effectively utilize those resources.

This type of discrimination has been noted to be especially strong in positively perceived resources (Mummendey et al., 1992). Hence, we hypothesize that:

Hypothesis 3. Negative perceptions of individuals towards out-group members will increase when in-group social capital ties are highly reciprocal.

In contrast, bridging social capital emphasizes ties between different people (Adler & Kwon, 2002). Bridging may alleviate overly cohesive intra-group interactions by promoting trust among parties (Newell et al., 2004). However, bridging is a delicate balancing act for individuals because it may give rise to conflicting demands and interests. Goal incongruences could engender perceptions of double standards and apparent hypocrisy with regards to how actors who bridge ties share information and resources (Hogg & Terry, 2000). This might be further emphasized in globally distributed teams due to lack of face-to-face interaction, language difficulties, and cultural differences. Consequently, “cultural mediators”, individuals who help to interpret and facilitate communication between different parties, should be utilized in global teams to achieve optimal outcomes (Chevrier, 2003). However, this type of brokering can be considered as individualistic rather than communitarian behaviour because brokers display different beliefs and identities with different people (Burt, 2000, p.354). Instead of emphasizing collective goals, brokers often aim to prioritize task-related outcomes and their personal goals – which can be a major source of friction between collectivist and individualistic cultures (Xiao & Tsui, 2007). Indeed, the success of a broker is often predicated upon playing actors’ conflicting interests against each other (Burt, 1992, p.34). Because of heightened sensitivity towards the reactions of others, actors who establish bridging ties may be more inclined to perceive others in more *negative* terms than actors without bridging ties:

Hypothesis 4. Actors with a high degree of in-group brokerage perceive out-group members more negatively than do non-brokers.

The extent to which an actor is focal to specific interaction patterns of a transnational team – namely *in-group centrality* - also has the potential to shape intergroup interactions. Centrality relates to superior levels of access and control over valuable resources (Burt, 1992), informal leadership (Freeman et al., 1980) and significant power over others (Brass, 1992). Hence, central actors are valued as prestigious members of the group. An analogous argument is that actors who are connected to powerful and influential people become influential themselves. For example, few close ties with central actors (i.e. group managers and team-leaders) could lead to increased resources, information, and opportunities, and therefore undermine the importance of *amount* of ties. Thus, social capital available to a particular team-member is positively related to the social capital available to that individual's network contacts. Consequently, Bonacich (1987, pp.1181) argued that 'one's status is a function of the status of those one is connected to'. High status individuals and groups tend to show stronger in-group bias than do low-status ones (Hewstone et al., 2002). Similarly, members of high-power groups tend to perceive out-groups negatively (Sachdev & Bourhis, 1994). Consequently, when central network actors within groups possess influence and power they might experience stronger cognitive commitment with the group and perceive out-group members as being disconnected and different. Thus:

Hypothesis 5. Actors central to in-group interactions perceive out-group members more negatively than do non-central actors.

A key issue for multinational organizations is not only to coordinate individuals from different cultural backgrounds, but also to organize teams which are separated physically across countries. Distributed teams have been found to experience conflict and problems in knowledge transfer more often than co-located teams (Cramton, 2001; Mannix et al., 2002). Socializing and friendly contact has been argued to be fundamental elements in trust formation in global collaboration (Child, 2001). Globally distributed teams therefore face difficulties in overcoming problems stemming from lack of face-to-

face contact and continuous development of shared identity and a shared work context (Hinds & Mortensen, 2005). Thus, distant geographical location increases the likelihood of sharing dissimilar values and formation of in-groups from which remotely located individuals may be excluded. **Thus,**

Hypothesis 6. Geographically distant team-members are perceived more negatively than individuals located in the immediate proximity.

Extensive research has shown that national culture has a major influence on individuals' perceptions, beliefs, and behaviour (Kirkman et al., 2006; Kwok et al., 2005). Importantly, actors from culturally distant countries tend to present contrasting values and cognitions, which in turn can create challenges and conflicts in decision-making, organizing complex processes, and knowledge transfer (Dong & Liu, 2010; Eapen, 2012). Although empirical evidence about the role of cultural distance within MNEs is often inconclusive and contradictory (Brouthers & Brouthers, 2001) social identity research is relatively consistent in that intergroup bias is intensified by cultural stereotypes and perceptions of dissimilarity (Triandis & Trafimow, 2008). At the same time, a well-documented tendency to for people to associate with *similar* others (i.e. those of the same nationality or background and heritage) can be destructive in MNEs due to decreased amount of shared information (Mäkelä et al., 2011) and intensified rates of network dissolution (McPherson et al., 2001). Thus:

Hypothesis 7a. High cultural distance between individuals increases the probability of a negative tie.

Furthermore,

Hypothesis 7b. When a negative tie occurs, high cultural distance between individuals increases the intensity of a negative tie.

(Figure 1 goes about here)

RESEARCH METHODS

To test these hypotheses data were collected from 36 global teams in three high-technology companies. The survey was administered to 160 employees and received an average response rate of 82%, which is well within accepted boundaries when using a whole network approach (Wassermann & Faust, 1994; Kossinets, 2006). These teams were geographically dispersed across 19 countries and 50 locations. Considerable amount of interaction and coordination between team-members therefore takes place through virtual and computer-aided systems. Before data were collected, interviews and discussions took place with the Chief Executive Officers and managers of the companies. The purpose was to establish a connection between scientific explanation and context, which has been argued to be especially important issue in cross-border settings (see Welch et al., 2011). This preliminary stage of investigation led to the inclusion of relational challenges between individuals and groups as a major focus of study. Teams were relatively small and, thus it was possible to use a whole-network approach. Name rosters helped to reduce measurement error, assist with recall, and enhance overall measurement reliability (Mardsen, 1990). All data were analysed using the UCINET 6 software (Borgatti et al., 2002).

Dependent Variable: Negative Perceptions of Out-group Members

We conceptualized the negative perceptions of network members through *relational tension*, *self-interest*, and *hindrance ties* (see table 1 for specific questions). Increased *relational tension* among people leads to rigidities in thinking, inefficiencies in communication, reduced problem-solving capabilities (Verbeke & Bagozzi, 2000), as well as having direct negative effect on trust levels (Lee et al., 2006). *Self-interest*, captures perceptions of opportunistic behaviour, zero-sum games, and the pursuit of private benefits at the expense of the common good. *Hindrance ties* make it difficult for individuals to carry out their organizational responsibilities (Sparrowe et al., 2001) through the

withholding of important information, resources or opportunities. Scores of these three sociomatrices were summed together to create a total network liability measure. We utilized a procedure developed by Krackhardt and Stern (1988) for investigating the embedding of network ties within and between groups. This E-I (external-internal) index (calculated from the abovementioned negative ties) ranges from -1 (all ties occur within the group) to 1 (all ties occur between groups).

Independent Variables: Social Capital Ties

We measure social capital through *trust*, *shared identity*, and *access to resources* (see table 1 below). *Trust* is an important component of relational social capital because it promotes, amongst other things, cohesion, unity of direction, and cooperation (Zahra et al., 2006; Granovetter, 1985). *Shared identity* relates to the cognitive aspect of social capital (shared norms, values, and attitudes), and is a significant factor in unifying individuals towards a common goal (Parkhe, 1993; Villena, 2011). *Access to new resources* facilitates value creation through the sharing of important information, exchange of favours, and coordination and combination of skills (Lin, 2000). Because these positive relationships are highly interconnected, we combined them into one valued multiplex graph (by taking the average value of each positive tie) to form our measure of social capital ties. Thus, in this graph, actors were connected by overlapping social capital relationships, hence reflecting the extent of positive network interactions.

(Table 1 goes about here)

Network Measurements

Network centrality was calculated using the so called Bonacich approach (Bonacich, 1987). This computes network centralities as a product of the prestige of those who people are connected to. In-group centralities and out-group centralities (ties *only within* identity groups and *all ties outside* those identity groups) were separately calculated in order to evaluate the effects of being connected to other well connected individuals within and outside of the respondent's social identity group.

Brokerage was measured as a function of the number of times a person connects two others who are unconnected by a network tie within an identity group. We further used an out-group brokerage variable to analyse the effect connecting any unconnected individuals outside of focal actors' membership group.

Reciprocal connection between two actors exists if there is a tie between individuals i and j as well as between j and i (Wassermann & Faust, 1994).

Density of groups (positive and negative) was calculated as a proportion of network ties that were actually present from the total number of potential connections within social identity groups. We then assigned each individual actor a value corresponding to his or her identity group.

Tie strength. We measured in-group tie strength as the sum of valued positive ties within each identity group. Each individual actor was then assigned a value corresponding to their membership group. Out-group tie strengths were calculated as the sum of valued ties with other identity groups.

Cultural distance was operationalized as Kogut-Singh (1988) index of cultural distance. Thus, if actors i and j were connected, value of this tie was replaced by corresponding index value. For Hypothesis 6b, we recoded the matrix so that only cultural distance index values corresponding to negative ties remained. GLOBE (House et.al., 2004) values were used in order to overcome some of the well-known criticisms expressed against Hofstede framework (Hutzschenreuter & Voll, 2008; Shenkar 2012).

Control Variables

In order to rule out alternative explanations we controlled for individuals' network size, gender, co-location (i.e. working in the same office), team membership (working in the same official team), and supervisory position in the analyses. Demographic attributes and leadership may affect how social network ties emerge and are perceived (McPherson & Smith-Lovin, 1987; Brass & Krackhardt, 1999).

Physical proximity and team membership can enhance social identification processes, and are therefore potential sources of strong categorization and stereotyping (Stahl et al., 2010).

Identification of Groups

Perceptions of shared identity were used to partition the network, and 37 groups were identified.

Groups ranged from 3 to 10 individuals. The so called CONCOR algorithm was utilized because our purpose is to investigate social identity as a function of perceptions of social self and, consequently, we wanted to maintain comparability with previous studies on social identity (Mehra et al., 1998; Leonard et al., 2008). Hence, we emphasize that collective sharing of values takes place within *social unit* (Nahapiet & Ghoshal, 1998), which can transcend official team structures.

ANALYTICAL PROCEDURES

Initially, we analysed the distribution of social liability ties within and across social identity groups.

Negative perceptions external to the actors' own social identity groups were considerably more common than negative ties within those groups. The former covered 80% and the latter only around 20% of all negative ties. E-I index (highly significant at $p < 0.001$) revealed that social liability ties primarily extend to individuals outside the actors' own social identity groups. Figure 2 illustrates this tendency diagrammatically. Even though positive ties are abundant within and between identity groups (figure 2a), negative perceptions are located almost exclusively *between* these same groups (figure 2b). As observed by Labianca and Brass (2006), negative ties are on average less common than positive ties.

(Figure 2 goes about here)

We tested each of our hypotheses by conducting a node level quadratic assignment procedure (QAP) regression (Krackhardt 1987). The QAP approach provides a robust indicator of unbiased significance

levels and standard errors because it preserves the dependence in both the dependent and independent variables.

RESULTS

First correlations and descriptive statistics were generated (see table 2 below). This was followed by a regression analysis of the factors affecting the creation of negative out-group perceptions.

(Table 2 goes about here)

Hypothesis 1 predicted that negative perceptions of *out-group* members increase as social capital ties *within* identity groups become more dense. This was partly supported because the density coefficients were significant in two models (at $p < 0.05$). However, density only moderately improved the overall R^2 value of the model and we cannot conclusively confirm its effects in inducing increasingly negative perceptions towards out-group members within transnational teams. Hypothesis 2 predicted that higher density of *negative* in-group ties also increases negative perceptions towards out-group members. This was strongly supported, as the beta coefficients associated with negative density were significant (at $p < 0.001$) and considerably improved the related R^2 values. The third hypothesis predicted that *in-group reciprocity* increases negative evaluations of outsiders. No support for this was found, and beta values were non-significant. Hypothesis 4, stating that *in-group brokering* increases intergroup bias, was also strongly supported. The results showed a pattern that high in-group brokerage scores were significantly associated (at $p < 0.05$) with negative perceptions of out-group members. Hypothesis 5, which predicted that *centrality of in-group interactions* increases negative out-group views, was supported. The beta coefficients associated with centrality were significant (ranging from $p < 0.001$ to $p < 0.01$) in five out of the seven models. R^2 values in the baseline model improved considerably from 0.02 to 0.43 after the inclusion of the network variables. The full model (see table 3 below) therefore provided significant

explanatory power in evaluating the mechanisms behind the intensification of negative perceptions within networks of global teams.

(Table 3 goes about here)

Hypotheses 6 and 7 were analysed separately because the level of analysis was at the dyadic (as opposed to individual) level. Correlations and descriptive statistics are presented in table 4 below.

(Table 4 goes about here)

Hypothesis 6, which predicted that geographically distant team-members are perceived more negatively than co-located members, was partly supported. The relationship between geographical distance and negative ties was significant (at $p < 0.001$) but provided only marginal increase to the R^2 values of the model. First part of hypothesis 7 was similarly partly supported (see table 5 below). While a linear relationship between variables was highly significant (at $p < 0.001$), relatively low R^2 value (0.07) indicated that cultural distance was not a particularly powerful predictor of negativity. Hypothesis 7 b predicted that cultural distance increases the *intensity* of a present negative tie. This hypothesis was highly supported, and cultural distance measured through GLOBE framework was significantly related to existing negative ties (at $p < 0.001$), and explained 30% of the variation in the dependent variable. Thus, even though cultural distance did only marginally increase the *probability* of a negative tie, it had an especially potent effect to increase the *intensity* of existing negative interactions.

(Table 5 goes about here)

Post-hoc Analysis

These results also raised a question of possible organizational impact of negative perceptions.

Consequently, post hoc tests examined the relationship between positive and negative perceptions and

perceived organizational performance of team-members. Extant research is relatively consistent in that both *effectiveness* (quality of work) and *efficiency* (quantity of work) are central to performance measurements (see Franco-Santos et al., 2007 and Neely et al., 2005 for reviews). Accordingly, respondents rated on a 1-6 Likert-type scale whether “*This person’s quality and quantity of work is higher than formal standards*”. The presence of a negative perception was expected to increase the likelihood of being perceived as a poor performer (see Labianca & Brass, 2006). Vice versa, social capital ties should enhance perceptions of high performance. Correlations and descriptive statistics are presented in table 6 below.

(Table 6 goes about here)

Performance was recoded from 1 (low) to 3 (very low) to assess the linear effect of negative ties. Control variables were transformed from vector to matrix-format so that $X(ij)=1$ if vector i = vector j and 0 if otherwise. Next, a series of QAP regressions (10000 permutations) were performed by regressing each element in the performance matrix on its corresponding element in each negative perception matrix. All three types of negative perceptions were significant (at $p<0.001$), and the R^2 values indicated that these ties reduce the uncertainty involved in predicting perceptions of poor performance by 20 %. Another series of analyses was run by regressing the performance variable (values ranging from 1-6) on social capital (trust, similar values, and resource) matrices. The R^2 value of .59 and significance levels of $p<0.001$ indicated that social capital ties provided an exceptionally potent indication of the perceived performance of individuals. These findings are presented in table 7 below.

(Table 7 goes about here)

DISCUSSION

As hypothesized, bonding social capital within social identity groups is partly found to promote negative perceptions of team-members not part of “in-group”. While cohesive and dense networks within transnational teams can advance conformity and cooperation, they may simultaneously engender cognitive processes which highlight social categorization and the achievement of distinctiveness through shared norms and values. These processes can emphasize increased intergroup bias, which was manifested as negative perceptions of out-group members. Density of negative ties *within* identity groups also promoted negative perceptions of out-group members. Negative stimulus weights more heavily than positive, and individuals may experience cognitive disturbance caused by negativity in their social group so heavily that it spills over to other parts of their network. This study provides support for this type of general positive-negative asymmetry (Ito et al., 1998; Taylor, 1991) for global teams. No support was found for adverse effects of reciprocity within identity groups. This was surprising because, like cohesion and density, reciprocity relates to shared norms and dependence within group (Rabbie et al., 1989). Low levels of reciprocation (10%) within the social capital network may have affected the ability of statistical procedures to discern reciprocity effects. Lack of reciprocity may have been caused by various factors affecting relationship building in transnational teams; lack of face-to-face communication, cultural differences, language and communications, and difficulties relating to computer aided communication (i.e. speed, equipment, skills etc.). Our hypotheses that in-group brokering and centrality enhance negative out-group bias were supported. Thus, when informal in-groups form in transnational teams, central figures and brokers within these groups tend to perceive out-group members in an adverse manner. These roles may operate through individualistic goals and identities, instead of emphasizing harmonious and uniform in-group interactions (Xiao & Tsui, 2007). Hence, actors occupying bridging or central positions may be predisposed as being opportunistic and

hence willing to see others more negatively. Also, related power and status are commonly cited sources of intergroup bias (Hewstone et al., 2002).

These negative interactions were significantly linked with cultural and geographical distance. Both only moderately increased the *probability* of negative ties, and this may be due to increased tolerance and self-control team-members may show towards other cultural backgrounds (see Chevrier, 2003). Separate analysis revealed that cultural distance substantially intensified existing negative relationships between team-members in global teams. Thus, in accordance with extensive previous research (see Hewstone, 2002) this study demonstrates that cultural and locational differences are a salient feature of network formation, and an important cognitive construct which can affect negative interactions between global team-members. Finally, negativity was related to the perceived performance. As theorised by Labianca and Brass (2006), negative perceptions may have impeded the flow of information and resources, which could make it difficult to achieve formal work standards. In contrast, social capital ties were found to provide a significant boost to performance evaluations. Overall, our findings imply three types of cognitive bias: 1) negative perceptions towards team-members which are not part of the in-group, 2) intensified negativity through geographical and cultural distance, and 3) impediments to objective performance evaluations of individual team-members within transnational teams.

LIMITATIONS AND FUTURE RESEARCH

First, our cross-sectional data do not allow a causal direction to be established. We cannot discern for certain whether low performance could have been at the root of negative perceptions, instead of a reversed causality postulated above. Thus, future studies should include longitudinal research designs which capture the directionality between variables and examine the dynamic nature of international networks over an extended period of time (i.e. co-evolution of network structure and affective states in

formation of negative ties, conflict, and social liabilities). Secondly, our results may have been influenced by other unknown variables. Future studies should investigate different mechanisms and conditions underpinning negativity within networks. For example, competition over scarce resources and undesirable future prospects has been found to give rise to intergroup hostilities and biases (Galinsky 2002). In general, more emphasis should be placed on the investigation of mechanisms and outcomes of intergroup bias in organizational studies; especially when bearing in mind increased use of teams, diverse work force, matrix structures and cross-functional designs, all of which require effective interpersonal and intergroup interactions in order to add value to organizational activities. Finally, whilst we provide a critical step in evaluating the effects of negative perceptions on organizational performance, our performance construct was limited in that it was based on a single-item scale. Performance is a multidimensional concept (Franco-Santos et al. 2007, Neely et al. 2005), and future studies should take this into consideration when drawing connections between performance and network interactions.

CONTRIBUTIONS

This study provides three key contributions to the current understanding of social networks and the network-based view of the multinational organization. First, it extends research on social capital (and social liabilities) by introducing the notion of negative intergroup bias in global teams into cross-cultural and international business research. Specifically, social identification, network structure, and geographical and cultural distance are revealed as mechanisms underpinning the development of negative perceptions within global teams. To the best of our knowledge, this study represents the first systematic attempt which discerns how the structure of a network is linked to intergroup bias and negative perceptions of out-group members from both a theoretical and empirical standpoint. Our study fits well with two key issues in the organizational network literature: (i) that there is a curvilinear relationship between the optimal amount of social capital and potential rewards (i.e. Laursen et.al 2012),

and (ii) negative ties can be a major threat to the effective functioning of individuals and organizations (i.e. Labianca and Brass, 2006). This study raises understanding of these issues by examining the structure of seemingly beneficial social capital ties from the perspective of negative perceptions of team-members. It thus elaborates the curvilinear nature of social capital, and the conditions under which social capital can have adverse consequences in international business context by analysing social, structural, and cultural mechanisms behind positive and negative interactions within multinational organizations. Second, there has previously been a limited empirical effort to quantify negative interactions, especially in studies analysing international networks. This study provides insight into conceptual novelty of several key elements of both social capital and negative relations, thus forming a foundation upon which future research should be able to build when investigating both pro-social and counterproductive behaviours from an organizational network perspective. Finally, the results have implications for managers. An important question is how negativity can be minimized. Corrective action should be taken when a minor sub-conscious in-group bias surfaces as obstructive behaviour or quarrels between groups. A potential managerial tool is structural alteration of workflow within and between identity groups. For example, re-categorization of groups could emphasize one common identity and superordinate goal between group members (Dovidio et al., 1998). It could further emphasize one overarching professional and occupational culture which would bind members from diverse backgrounds together (Chevrier, 2003). Overall, this study contributes to unravelling how MNEs can extend their resource base and build new organizational advantages by managing increasingly complex internal networks across national borders. By examining potential impediments for effective resource combination and utilization within organizational networks, this study contributes towards finding new ways by which global teams may realize their full potential. Indeed, our study draws on ideas and methods from several disciplines in order to advance a fundamental understanding of the *social* context of the multinational company, resulting in contribution that could not have been obtained through a single-disciplinary lens.

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TABLES AND FIGURES

Figure 1 Social Capital Conduits and Effect of Social Identity

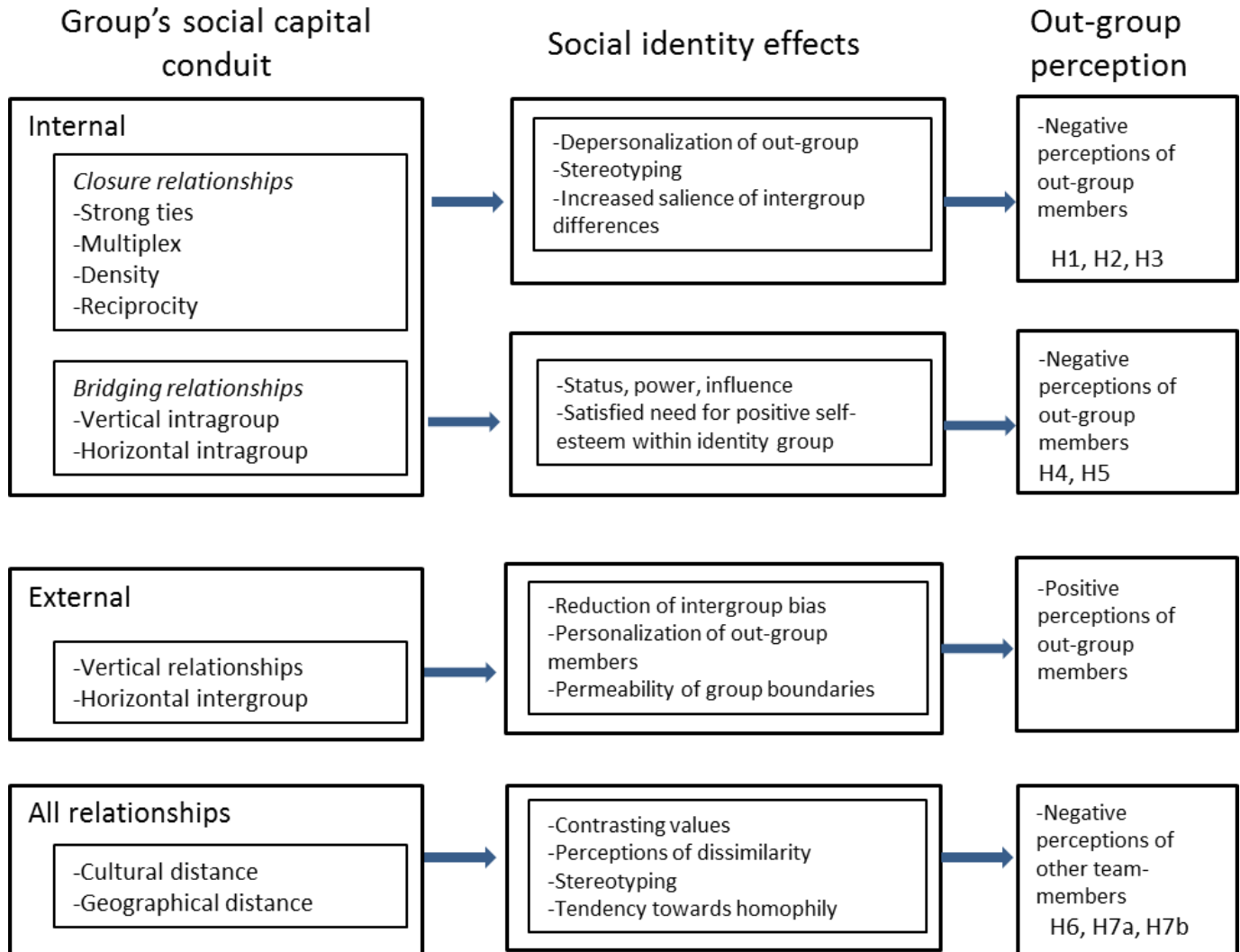


Table 1 Factor analysis of network relationships

Construct	Item	Question	Mean	SD	Factor Loading
Social Capital	Trust	<i>I can rely on this person when it comes to work-related issues</i>	4.7	1.05	0.95
	Resources	<i>This person is a good source of information, ideas, resources and opportunities</i>	4.58	1.09	0.97
	Similar values	<i>This person shares similar values, ways of thinking, and understanding to my own</i>	4.46	0.99	0.96
Social Liability	Hindrance ties	<i>This person makes it difficult for me to carry out my job responsibilities (i.e. by withholding information, opportunities, and resources)</i>	1.41	0.67	0.96
	Self-interest	<i>This person sometimes puts their own interests ahead of others</i>	1.42	0.62	0.89
	Relational tension	<i>I often feel uncomfortable when working with this person</i>	1.89	0.92	0.94

Note. N=160, items were measured from 1 (strongly disagree) to 6 (strongly agree).

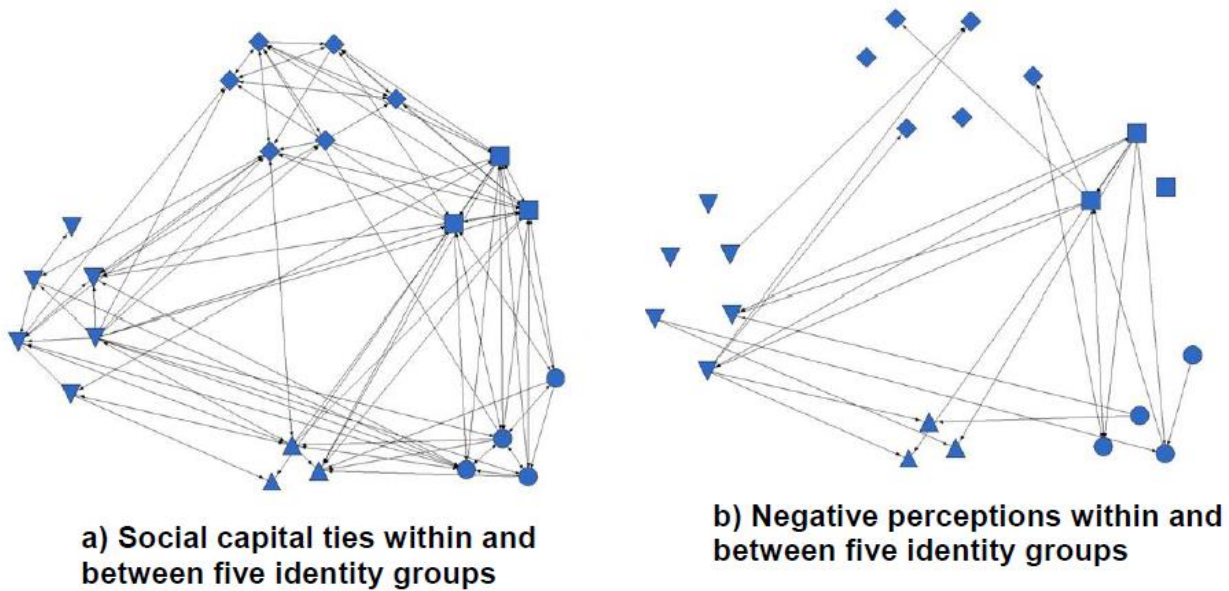
Figure 2 Graphical representation of intergroup bias in negative network ties

Table 2 Correlations and descriptive statistics

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Co-location	2.86	2.18																
2. Gender	1.28	0.45	-0.14															
3. Supervisor	0.43	0.50	-0.19	-0.12														
4. Team membership	18.96	10.17	0.35	-0.09	-0.17													
5. Network size	14.78	6.13	-0.15	-0.08	0.26	-0.29												
6. Centrality-in-group	3.10	12.26	0.03	0.01	0.02	0.13	-0.02											
7. Centrality-out-group	6.88	10.53	0.02	-0.12	-0.01	-0.12	-0.32	-0.16										
8. Broker-in-group	1.31	2.10	-0.07	-0.05	0.01	0.06	0.07	0.38	-0.24									
9. Broker-out-group	64.08	59.75	-0.17	-0.11	0.11	-0.09	-0.01	-0.20	0.29	0.10								
10. Pos.in-group density	0.84	0.55	-0.11	0.04	-0.04	0.13	0.05	0.22	-0.20	0.25	0.07							
11. Pos.out-group density	0.41	0.21	0.03	0.02	-0.07	0.04	0.01	0.07	0.06	-0.06	-0.27	-0.03						
12. Reciprocity-in-group	0.22	0.30	-0.14	0.05	0.05	0.16	0.18	0.10	-0.36	0.09	-0.11	0.09	0.12					
13. Reciprocity-out-group	0.09	0.12	0.02	-0.16	0.13	0.17	0.14	0.22	-0.25	0.16	-0.10	0.12	0.09	0.30				
14. Neg.in-group density	0.20	0.25	0.05	-0.09	-0.04	0.23	0.15	0.00	-0.18	-0.06	0.06	0.21	-0.14	0.10	0.10			
15. Neg.out-group density	0.19	0.39	-0.04	-0.04	-0.02	0.11	0.09	0.07	-0.20	-0.02	-0.09	0.08	0.37	0.12	0.14	0.14		
16. In-group tie strength	23.04	24.03	-0.09	0.11	-0.02	0.12	0.02	0.72	-0.30	0.52	-0.14	0.64	0.00	0.15	0.15	0.11	0.12	
17. Out-group tie strength	60.46	37.12	-0.21	0.07	-0.04	-0.05	-0.07	0.13	0.02	0.39	0.30	0.59	-0.14	-0.09	-0.03	-0.05	0.06	0.55

Notes. *10.000 permutations, N=160, correlations of 0.16 are significant at $p < 0.05$, 0.21 significant at $p < 0.01$, and 0.26 significant at $p < 0.001$

Table 3 Regression of network variables on negative out-group perceptions

	1	2	3	4	5	6	7
Co-location	-0.11	-0.10	-0.07	-0.05	-0.05	-0.05	-0.04
Gender	0.04	0.01	0.04	0.03	0.02	0.06	0.05
Supervisor	-0.01	-0.03	-0.02	-0.01	-0.01	0.02	0.01
Team membership	0.20*	0.12	0.12	0.09	0.10	0.10	-0.01
Network size	0.19*	0.15	0.14	0.14	0.14	0.05	0.06
Centrality-in-group		0.41***	0.34**	0.31**	0.32**	0.31**	0.23
Centrality-out-group		-0.08	-0.05	-0.02	-0.03	0.03	0.03
Broker-in-group			0.23*	0.21*	0.22*	0.30**	0.27*
Broker-out-group			0.03	0.01	0.01	-0.03	-0.02
Pos.group density				0.16*	0.16*	0.08	0.01
Pos.out-group density				0.00	0.00	0.03	0.03
Reciprocity-in-group					0.00	0.00	0.00
Reciprocity-out-group					-0.05	-0.06	-0.05
Neg.group density						0.44***	0.43***
Neg-out-group density						0.06	0.06
In-group tie strength							0.15
out-group tie strength							0.00
R ²	0.06	0.25	0.30	0.32	0.32	0.50	0.50
R ² adj	0.02	0.21	0.25	0.27	0.26	0.43	0.43
Sig.	0.12	0.00	0.00	0.00	0.01	0.01	0.01

$p > 0.05$ $p < 0.001$ $p < 0.001$ $p < 0.001$ $p < 0.01$ $p < 0.01$ $p < 0.01$

Notes. *10.000 permutations, N=160, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4 Correlations and descriptive statistics

	Mean	SD	1	2	3	4	5	6	7
1. Location	1	0							
2. Gender	1	0	-0.02						
3. Supervisor	1	0	0.00	-0.01					
4. Official team	1	0	0.00***	0.04	0.02				
5. Geographic distance	1133.9	1815.1	-0.02***	0.01	0.01	0.02***			
6. Cultural distance	0.852	0.431	-0.02***	0.01	0.00	0.03***	0.58***		
7. Cultural distance - direct	0.948	0.438	0.14***	0.01	-0.01	0.00***	0.12***	0.2***	

Notes. *10.000 permutations for estimating standard errors, * $p < 0.05$, ** $p < 0.01$,

*** $p < 0.001$

Table 5 Regression of geographical and cultural distance on negative network ties

	1	2	3	4
Co-location	0.11***	0.12***	0.12***	0.12***
gender	0.00	0.00	0.00	0.00
supervisor	0.00	0.00	0.00	0.00
official teams	0.09***	0.07***	0.06***	0.05***
Geog.distance		0.16***	0.04***	0.05***
Cultural distance			0.19***	-0.04***
Cultural distance - direct				0.52***
R2	0.026	0.052	0.077	0.296
Sig.	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$

Notes. *10.000 permutations for estimating standard errors, number of observations =25,440,

* $p < 0.05$, ** $p < 0.01$,

*** $p < 0.001$

Table 6 Correlations and descriptive statistics

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Performance	4.37	1.01											
2. Performance (poor)	1.35	0.57	0.19										
3.Co-location	1.00	0.00	0.11	0.03									
4. Gender	1.00	0.00	0.06	0.00	0.03								
5. Supervisor	1.00	0.00	0.02	0.01	0.00	-0.01							
6. Team membership	1.00	0.00	0.24	0.09	0.10	0.04	0.02						
7. Relational tension	1.89	0.92	0.16	0.29	0.02	0.02	0.02	0.07					
8. Hindrance ties	1.41	0.67	0.11	0.35	0.02	0.03	0.01	0.04	0.34				
9. Self-interest	1.42	0.62	0.22	0.32	0.07	0.04	0.01	0.12	0.22	0.25			
10. Trust	4.70	1.05	0.70	0.16	0.14	0.08	0.02	0.28	0.16	0.11	0.28		
11. Similar values	4.46	0.99	0.75	0.20	0.14	0.08	0.02	0.29	0.14	0.13	0.29	0.87	
12. Resources	4.58	1.09	0.76	0.19	0.14	0.08	0.02	0.30	0.15	0.12	0.30	0.91	0.93

Notes. *10.000 permutations; correlations equal to 0.16 are significant at $p < 0.05$, correlations equal to 0.21 are significant at $p < 0.01$, and correlations equal to 0.26 are significant at $p < 0.001$

Table 7 The effect of social liabilities and social capital on perceived performance

INDEPENDENT VARIABLE	Social liability models				Social capital models			
	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5	MODEL 6	MODEL 7	MODEL 8
	β	β	β	β	β	β	β	β
Co-location	0.00*	0.00	0.00	0.00	0.01*	0.01*	0.00	0.00
Gender	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Supervisor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Team membership	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Relational tension		0.28***	0.19***	0.15***				
Hindrance ties			0.28***	0.23***				
Self-interest				0.22***				
Trust						0.50***	0.31***	0.12***
Similar values							0.47***	0.28***
Resources								0.41***
R ²	0.00	0.08	0.15	0.20	0.00	0.48	0.57	0.60
	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$

Notes. *10.000, number of observations = 25,440, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$