

**INPATRIATES' BOUNDARY SPANNING AND KNOWLEDGE SHARING AT THE
HEADQUARTERS: THE MODERATING EFFECT OF ABSORPTIVE CAPACITY**

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Abstract

Viewing knowledge as primarily rooted in individuals, this study investigates knowledge sharing in multinational corporations (MNCs) from an individual-level perspective. Specifically, I focus on inpatriate assignees as a particular group of knowledge actors in MNCs and examine their role as boundary spanners in the exchange of knowledge between an MNC's headquarters and its subsidiaries. Based on a sample of 286 inpatriates in ten German MNCs, the study demonstrates that both inpatriates' individual efforts and perceived HQ staff efforts for knowledge sharing are positively influenced by inpatriates' boundary spanning activities and that perceived HQ absorptive capacity moderates this relationship.

Keywords: Inpatriates; Boundary spanning; Knowledge sharing; Absorptive capacity

1. Introduction

International assignees have long been regarded as facilitators of cross-unit knowledge flows in multinational corporations (MNCs) (Bonache & Brewster, 2001; Hocking, Brown, & Harzing, 2004; Lazarova & Tarique, 2005). Key to this argument is the notion that international assignees serve as an important channel to transmit knowledge between geographically dispersed company units as they are able to adapt culturally and institutionally instilled knowledge from one context to the other (Argote & Ingram, 2000). While most scholars have applied an ethnocentric perspective, focusing on the transfer of staff and thus knowledge from the corporate headquarters (HQ) to the MNC periphery (Kamoche, 1997), more recent research has highlighted the role of subsidiary staff in providing knowledge benefits for the larger MNC. Specifically, employees that are transferred from a MNC's foreign subsidiaries to the HQ on a temporary basis, commonly referred to as inpatriates (Adler, 2002), may serve as a crucial mechanism to diffuse local contextual knowledge from MNC subsidiaries into the HQ organization (Harvey, Speier, & Novicevic, 2001; Reiche, 2006).

Although international assignees in general and inpatriates in particular are potentially valuable carriers of knowledge, evidence suggests that knowledge sharing does not always occur smoothly. The difficulty in exchanging knowledge within the organization is commonly referred to as internal stickiness (Szulanski, 1996; 2000) and includes factors related to the source of knowledge, the recipient, the context and the knowledge itself. One line of inquiry has focused on the social conditions necessary for knowledge sharing to occur, conceptualizing knowledge sharing between individuals as contingent upon social interaction (Levin & Cross, 2004; Nebus, 2006; Reagans & McEvily, 2003). More specifically, scholars have highlighted the role of social capital, referring to the structure and content of an individual's network ties (Adler & Kwon, 2002), for the creation of human (Coleman, 1988)

and intellectual capital (Nahapiet & Ghoshal, 1998) due to the information resources that are embedded in social relationships. Consequently, the lack of social ties with potential knowledge recipients will reduce the likelihood that successful knowledge sharing occurs, not only in a domestic setting (Seibert, Kraimer, & Liden, 2001) but also in the context of international assignments (Au & Fukuda, 2002).

Another strand of research has examined stickiness factors in terms of the recipient's ability to utilize the acquired knowledge, primarily focusing on the organizational level at which knowledge benefits may arise. Indeed, given the importance of knowledge for sustained competitive advantage, the capacity to absorb and leverage new knowledge has become a crucial organizational capability. Cohen and Levinthal (1990, p. 128) call this capability 'absorptive capacity', "the ability to recognize the value of new information, assimilate it, and apply it to commercial ends." Specifically, they argue that a firm's capability to identify and make use of new related information derives from the stock of knowledge it has accumulated over the past (Cohen & Levinthal, 1990; see also Lane, Koka, & Pathak, 2006). Empirical studies have applied the concept to business units (Tsai, 2001), firms (Van den Bosch, Volberda, & de Boer, 1999) and dyads (Lane & Lubatkin, 1998) while others have investigated the role of individual actors in developing a firm's absorptive capacity through informal information provision (Lenox & King, 2004). The extent to which inpatriates' knowledge will be successfully diffused to HQ staff may therefore depend on the level of absorptive capacity at the HQ.

Building on these ideas, the present study aims at investigating some of the determinants that facilitate successful knowledge sharing between inpatriates and HQ staff in the light of extant stickiness factors. In doing so, it makes three contributions to the literature. First, I expand the international assignment perspective by explicitly concentrating on inpatriates. While previous research has investigated the expatriation of parent-country

nationals to foreign subsidiaries (see Harrison, Shaffer, & Bhaskar-Shrinivas, 2004) and the resulting knowledge outcomes (e.g., Hocking et al., 2004; Riusala & Suutari, 2004), little is known on how individuals from other countries-of-origin deal with international job transitions into the HQ and how this affects their ability to exchange knowledge. Second, my focus on the individual assignee and the role of social processes that underlie the interaction between knowledge sender and recipient addresses the call for developing the micro-level foundations of knowledge flows in MNCs (Felin & Hesterly, 2007; Foss & Pedersen, 2004) and examines *how* international assignees in general and inpatriates in particular can diffuse knowledge across MNC units. Third, I incorporate the role of absorptive capacity into the analysis, thereby specifying the boundary conditions of *when* the use of such cross-unit boundary spanners entails knowledge benefits for the MNC. While recent research has advanced our understanding of absorptive capacity in facilitating MNC knowledge flows (Mahnke, Pedersen, & Verzin, 2005; Minbaeva, Pedersen, Björkman, Fey, & Park, 2003), studies applying the concept to the context of international assignments are scarce.

2. Theory and hypotheses

2.1. Inpatriates' boundary spanning and knowledge sharing

Following the view that knowledge primarily resides in individuals (Felin & Hesterly, 2007; Grant, 1996), we need to consider that the application and sharing of knowledge always occurs in the light of specific physical contexts and mental models of individual counterparts. Accordingly, knowledge can be characterized as inherently social and contextual in nature (Davenport & Prusak, 1998), making the process of sharing knowledge between individuals contingent upon social interaction and exchange. Such social interaction may occur either based on formal hierarchy- or position-based relationships or through informal social ties that are sustained due to the reciprocal resources embedded in them (Li, 2007). While formal relationships may account for regular communication flows in organizations, evidence

suggests that informal ties among organizational members in particular contain important knowledge benefits (Hansen, 1999; Hansen, Mors, & Lovas, 2005).

Under conditions of low physical proximity between actors, for example in the case of staff in geographically dispersed MNC units, the development of social ties and the resulting access and exchange of knowledge will be more difficult (Nebus, 2006). In this vein, the literature has emphasized the role of individuals' boundary spanning activities as a crucial means to link resources across different units, thus making them more widely available in the organization (Tushman & Scanlan, 1981). Boundary spanning involves an important social dimension as it enables the focal individual to establish direct social ties with actors in other organizational units (Kostova & Roth, 2003). Evidence indeed suggests that such cross-unit ties facilitate the effective sharing of knowledge within organizations in general (Cross & Cummings, 2004; Hansen, 2002) and MNC subsidiaries in particular (Mudambi, Mudambi, & Navarra, 2007; Tsai, 2001).

The inpatriation of foreign subsidiary staff to a MNC's HQ is a particular type of intra-organizational boundary spanning (Harvey, Novicevic, & Speier, 2000). During their assignment inpatriates are exposed to a new social environment in which they will establish diverse social relationships with HQ staff. From a boundary spanning perspective, these ties are only relevant if they have the potential to generate organizationally valuable resources, for example in the form of sharing subsidiary-specific knowledge that increases HQ staff's understanding of the subsidiary context and leads to more effective subsidiary management and local market penetration. By creating these social ties inpatriates act as boundary spanners that link previously unconnected local knowledge resources at the HQ and the home unit (Burt, 1992; Kostova & Roth, 2003). Building on these ideas, I define inpatriates' boundary spanning as the development of social ties with those HQ staff that can make use of inpatriates' local knowledge for the larger organization.

Given their intimate understanding of both the local market and subsidiary context, inpatriates are expected to share this knowledge and expertise during their assignment with HQ staff, thereby increasing the MNC's chance of achieving success and a competitive advantage in the local market (Harvey et al., 2000). In addition, inpatriates are able to explain certain culture-bound attitudes such as turnover cognitions that are prevalent among the local workforce to HQ staff. This will enable the HQ to select culturally contingent and effective strategies for subsidiary staff retention (Reiche, 2007). As knowledge is sticky and requires a certain degree of effort to be successfully shared (Szulanski, 2000), I adopt the concept of knowledge sharing effort in this study. Knowledge sharing effort consists of two interrelated dimensions referring to the two parties of the exchange relationship: inpatriates' effort to share their knowledge and HQ staff effort to acquire this knowledge. Specifically, if inpatriates make an effort to share their knowledge but HQ staff does not reciprocate with a corresponding effort to acquire it, knowledge will not be successfully shared. A similar logic applies if only the knowledge recipient exerts an effort.

In order for inpatriates' knowledge to be successfully diffused into and applied at the HQ it needs to reach the appropriate recipients. For example, there will be no benefit in sharing subsidiary-related knowledge with those HQ employees who are not directly responsible for the respective local market or do not have the influence to make use of the knowledge and modify the MNC's business and HR strategies accordingly. As knowledge sharing can be costly for the sender in terms of investing time and effort to communicate what he or she knows (Reagans & McEvily, 2003) inpatriates will be selective in choosing potential knowledge recipients. Specifically, they are more likely to share their knowledge if they know that the recipient is in the position to apply it and may reciprocate the knowledge sharing, for example through reward provision (Argote, McEvily, & Reagans, 2003; Cabrera, Collins, & Salgado, 2006). This will be the case if inpatriates have established a social

relationship with the recipient. On the other hand, the potential recipients at the HQ will only reciprocate and accept the knowledge shared by the inpatriate if they are aware of the available knowledge, positively evaluate the sender's knowledge (Borgatti & Cross, 2003) and perceive the sender to be reliable (Szulanski, 2000). Similarly, this will more likely be the case if the recipients maintain a social relationship with the inpatriate. Taken together, these arguments suggest that knowledge sharing will occur when inpatriates build social ties with those HQ employees that can make use of inpatriates' knowledge and thus translate it into an organizational benefit. This type of social ties corresponds to the relationships developed through inpatriates' boundary spanning as conceptualized earlier. Therefore:

Hypothesis 1a: Inpatriates' boundary spanning positively relates to their effort to share knowledge with HQ staff.

Hypothesis 1b: Inpatriates' boundary spanning positively relates to HQ staff effort to acquire knowledge from inpatriates.

2.2. HQ absorptive capacity

Thus far, I have argued that inpatriates share their local knowledge through particular social interactions at the HQ. However, for knowledge to be successfully acquired, HQ staff needs to reflect upon, interpret and make sense of the information that they obtain (De Long & Fahey, 2000; Louis, 1980). This processing is particularly important in a cross-national context, where information may be instilled with culture-specific meanings (e.g., Bhagat, Kedia, Harveston, & Triandis, 2002). At the firm level, this ability has been referred to as absorptive capacity (Cohen & Levinthal, 1990). Echoing the arguments of learning theorists at the individual level, scholars argue that a firm's capability to identify and make use of new related information derives from the stock of knowledge it has accumulated over the past (Cohen & Levinthal, 1990; Zahra & George, 2002). Szulanski (1996), for example, discovered in a study of eight companies that the lack of absorptive capacity substantially

inhibits the internal transfer of best practices. Conceptualizing absorptive capacity as organizational members' overall ability and motivation, Minbaeva et al. (2003) showed that the construct exerts an important influence on successful cross-unit knowledge sharing. In another study, Tsai (2001) demonstrated how elements of social capital and absorptive capacity have an interaction effect on intra-organizational knowledge exchange.

Accordingly, HQ employees that are in the position to apply the local knowledge shared through inpatriates' boundary spanning will be more able to do so, if they possess a stock of related knowledge and share knowledge commonalities with inpatriates. Indeed, given that the acquisition of knowledge is contingent upon diverse personal, situational and social factors (Ellis, Hollenbeck, Ilgen, Porter, & West, 2003; Gruenfeld, Martorana, & Fan, 2000), it will be easier for a recipient to successfully acquire knowledge from its sender if both individuals share certain knowledge commonalities such as similar background characteristics (Reagans & McEvily, 2003). In the case of cross-cultural interaction, these commonalities entail an understanding of the counterpart's frames of reference and attitudes (Mendenhall & Oddou, 1985). From this perspective, HQ absorptive capacity entails HQ employees' ability to recognize, value and process information through cross-cultural encounters and may be rooted in their experience with cross-cultural interactions or may result from the provision of intercultural training, especially to those HQ employees that are likely to interact with inpatriates (Vance & Ring, 1994).

We can therefore expect that in the case of high HQ absorptive capacity and thus existing knowledge commonalities between an inpatriate and his or her HQ counterparts, HQ employees are more likely to make an effort to acquire knowledge from the inpatriate through the established social ties. However, HQ absorptive capacity will not only increase the effect of inpatriates' boundary spanning on HQ staff effort to acquire knowledge from inpatriates but also on inpatriates' effort to share their knowledge. Specifically, if HQ absorptive

capacity is high, an inpatriate's subsidiary-level knowledge is more likely to be understood or considered relevant by HQ employees. As a result, the inpatriate will make a stronger effort to share this knowledge with HQ employees through the established social ties. In sum, it is reasonable to assume that inpatriates' boundary spanning will more likely lead to inpatriates' individual effort and HQ staff effort for knowledge sharing if the HQ possesses absorptive capacity. In formal terms:

Hypothesis 2a: HQ absorptive capacity moderates the positive effect of inpatriates' boundary spanning on their effort to share knowledge with HQ staff such that the relationship becomes stronger when HQ absorptive capacity is high.

Hypothesis 2b: HQ absorptive capacity moderates the positive effect of inpatriates' boundary spanning on HQ staff effort to acquire knowledge from inpatriates such that the relationship becomes stronger when HQ absorptive capacity is high.

3. Method

3.1. Sample and procedure

To test the hypothesized relationships, an online survey was administered to a sample of 643 inpatriates at 10 German MNCs' HQs. In order to reduce potential variation due to cultural differences of the assignment context, the national culture of the assignment destination was held constant (Mendenhall & Oddou, 1985). I selected German companies for this study as I was interested in a non-U.S. sample, building on evidence that European MNCs in particular expect to increase their share of inpatriates in the future (Oddou, Gregersen, Black, & Derr, 2001). Confidentiality of survey responses was ensured to all participants. A reminder email was sent two weeks after the initial email.

A total of 286 completed surveys were returned (a 44.5% response rate). After eliminating cases with missing data, the final sample consisted of 260 inpatriates. Respondents' demographic breakdown was as follows: They came from a total of 45 different

countries-of-origin, had an average age of 37.3 years and had spent an average time of 20 months on their assignment. The large majority of respondents (73%) had no prior international assignment experience with only 6 % having completed 3 or more international transfers before. In addition, 76% of the inpatriates were male and 79% were married or had a partner. Average organizational tenure was 9.3 years.

3.2. Measures

Apart from respondents' personal and demographic information, all items were measured along seven-point Likert-type scales.

Inpatriates' boundary spanning. Inpatriates' boundary spanning will occur along different lines. For example, boundary spanning will benefit from inpatriates building as many ties with HQ staff as possible. Indeed, the more social ties inpatriates develop and maintain in general, the more likely it is that HQ staff can directly benefit from and apply inpatriates' unique local knowledge and expertise. Also, boundary spanning and its resulting benefits such as the sharing of organizationally valuable knowledge will more likely occur through continuous rather than transactional exchanges (Kostova & Roth, 2003). This requires the development of long-term relationships between inpatriates and HQ staff. Building on these arguments, my measurement scale consisted of five items ($\alpha = .78$), including "I am willing to build up long-term relationships with colleagues at the HQ." (1 = strongly disagree to 7 = strongly agree).

Inpatriates' knowledge sharing. Following extant practice in research on knowledge transfer (e.g., Schulz, 2001; Yli-Renko, Autio, & Sapienza, 2001), I focused on different types of shared knowledge. In the case of inpatriate assignments, the knowledge expected to be shared includes local market knowledge such as formal and informal business norms, knowledge on the wider political, economic and social environment of the home country, knowledge on the local subsidiary context as well as specific knowledge about potential contact persons at the home unit (Harvey, Novicevic, & Speier, 1999; Harvey et al., 2000). As

a result, I developed two four-item scales (Response format: 1 = low effort to 7 = high effort), asking respondents to rate the extent to which (1) they have made the effort to transfer these four types of knowledge to HQ staff ($\alpha = .77$) and (2) they think HQ staff has made the effort to acquire these four types of knowledge from them ($\alpha = .86$).

HQ absorptive capacity. As my data collection focused on the individual level of analysis, I measured HQ absorptive capacity as perceived by the individual inpatriate. The literature on absorptive capacity differentiates between two clusters of antecedents or drivers of absorptive capacity (Cohen & Levinthal, 1990; Van den Bosch, Van Wijk, & Volberda, 2003). Whereas a first cluster refers to general aspects such as basic skills and problem-solving methods as well as a shared language, the second cluster concerns internal mechanisms that affect a firm's absorptive capacity, for example the character and distribution of expertise and knowledge within the organization. As I was particularly interested in HQ staff's ability to absorb, value and process information through cross-cultural encounters, I developed a three-item scale ($\alpha = .62$) that explicitly taps into this characteristic. An example item is "HQ staff can easily acquire new knowledge through cross-cultural encounters" (Response format: 1 = strongly disagree to 7 = strongly agree).

Control variables. Recent research (e.g., Riusala & Suutari, 2004) indicates that international assignees may obtain specific objectives regarding the knowledge they are expected to share during their assignment. When such knowledge exchange objectives are explicitly communicated to the inpatriate prior to or during the assignment, they may influence the scope of knowledge sharing. I therefore included a two-item measure of knowledge exchange objectives ($\alpha = .85$). Furthermore, I controlled for inpatriates' German language proficiency (three-item scale, $\alpha = .96$), gender, age, organizational tenure, the number of prior international assignments of more than six months (0 = "none" to 3 = "three or more") and the time respondents had already spent on their assignment.

4. Results

Before testing my hypotheses, I examined the potential for common method bias in the sample, conducting Harman's single-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Accordingly, I subjected all items for the variables in the study to a principal component analysis using oblimin rotation. This analysis revealed 4 clear factors that together explained 62.53% of the variance and corresponded to the expected constructs: inpatriates' boundary spanning, knowledge sharing (individual effort), knowledge sharing (perceived HQ effort) and perceived HQ absorptive capacity. The average item loading on the hypothesized construct was .76. The absence of cross-loadings of above .40 among the items provides confidence that common method bias is not an issue in this study. Table 1 reports means, standard deviations and correlations among the study's variables. Control variables were only included in the analysis if they were shown to correlate with both the criterion variable and the predictor or moderator.

Table 1: Means, Standard Deviations and Correlations

| Variable | Mean | St. d. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|-------------|---------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| 1 Inpatriates' boundary spanning | 5.28 | 1.00 | (.78) | | | | | | | | | | |
| 2 Knowledge sharing: Individual effort | 4.81 | 1.24 | .32 | (.77) | | | | | | | | | |
| 3 Knowledge sharing: HQ effort | 3.78 | 1.37 | .25 | .57 | (.86) | | | | | | | | |
| 4 Absorptive capacity | 4.02 | 1.15 | .20 | .15 | .36 | (.62) | | | | | | | |
| 5 Knowledge exchange objectives | 3.57 | 1.70 | .24 | .11 | .25 | .33 | (.85) | | | | | | |
| 6 German language proficiency | 3.94 | 2.02 | .09 | .00 | .04 | .03 | .03 | (.96) | | | | | |
| 7 Gender | 1.24 | .43 | .02 | .09 | .05 | -.08 | -.01 | -.03 | - | | | | |
| 8 Age | 37.33 | 7.03 | -.30 | -.10 | -.07 | -.04 | .00 | -.11 | -.24 | - | | | |
| 9 Organizational tenure (months) | 111.15 | 72.33 | -.12 | .01 | .02 | .02 | .03 | .08 | -.15 | .63 | - | | |
| 10 Prior international assignments | .48 | .98 | -.08 | .02 | -.02 | -.02 | -.03 | -.08 | .01 | .27 | .25 | - | |
| 11 Time on assignment (months) | 23.98 | 18.01 | -.06 | -.03 | .04 | .07 | -.07 | .23 | -.07 | .28 | .39 | -.01 | - |

Significant correlations in italics, $p < .05$, all two-tailed, $N = 260$. Alpha reliabilities are presented along the diagonal.

To test my hypotheses, I conducted four hierarchical regression analyses. First, the main effect of inpatriates' boundary spanning on the two dimensions of knowledge sharing was examined. The results for Hypotheses 1a and 1b are presented in Table 2. In the case of inpatriates' individual effort to share knowledge, only a single regression model was run due to a lack of controls that were significantly correlated with both the predictor and the criterion variable (see Table 1). As expected, inpatriates' boundary spanning has a significant positive effect on both dimensions of knowledge sharing, thereby supporting Hypotheses 1a and 1b.

Table 2: The Main Effect of Inpatriates' Boundary Spanning

| Variables | Knowledge sharing: Individual effort | Knowledge sharing: HQ effort | |
|--------------------------------|---|---|-----------------------------------|
| | Model 1[#] β | Model 1 β | Model 2 β |
| Knowledge exchange objectives | | .24*** | .19** |
| Inpatriates' boundary spanning | .29*** | | .20** |
| R | .29 | .24 | .31 |
| R-square | .09 | .06 | .10 |
| Δ R-square | .09*** | .06*** | .04** |
| Adj. R-square | .08 | .06 | .09 |
| F-value model | 24.08*** | 16.05*** | 13.50*** |

*** $p < .001$, ** $p < .01$, * $p < .05$, all two-tailed, $N = 260$.

Model 1: controls entered only. [#] Only one model was run due to a lack of significant controls (see Table 1).

Second, I tested the two moderator hypotheses using moderated multiple regression analysis. In a first step, I entered knowledge exchange objectives as a control variable (only for knowledge sharing: HQ effort). In the second step, the main effects were entered as centred variables. In the final step, the interaction term of the centred components was entered into the equation (Aiken & West, 1991). Table 3 shows the results for Hypothesis 2a, indicating a significant synergistic interaction effect of inpatriates' boundary spanning and perceived HQ absorptive capacity on inpatriates' effort to share knowledge.

Table 3: Interaction Effect of Absorptive Capacity and Inpatriates' Boundary Spanning on Knowledge Sharing: Individual Effort

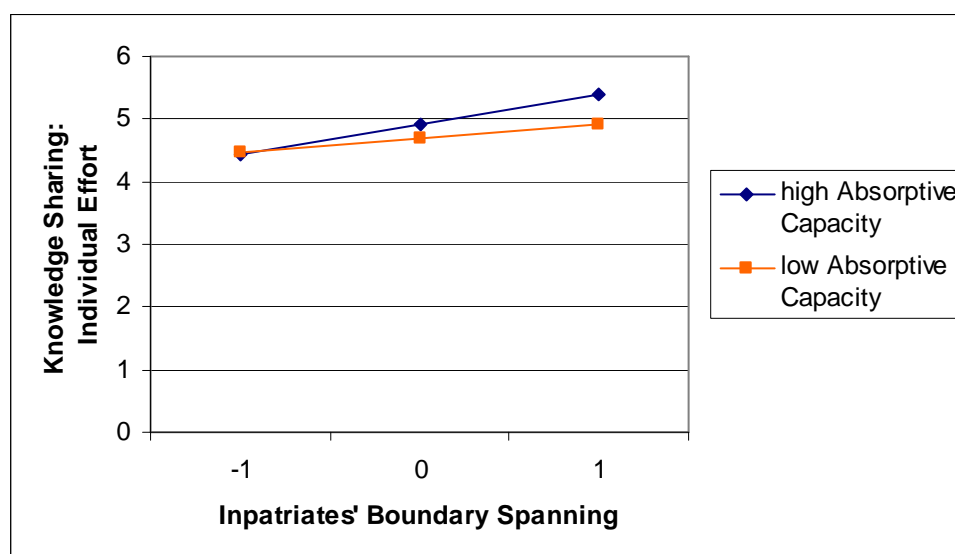
| Variables | Knowledge sharing: Individual effort | |
|--|--------------------------------------|-----------------|
| | Model 1 β | Model 2 β |
| Absorptive capacity | .10 | .09 |
| Inpatriates' boundary spanning | .29*** | .30*** |
| Absorptive capacity*Inpatriates' boundary spanning | | .11* |
| R | .32 | .34 |
| R-square | .10 | .12 |
| Δ R-square | .10*** | .01* |
| Adj. R-square | .10 | .11 |
| F-value model | 15.70*** | 11.90*** |

*** $p < .001$, ** $p < .01$, * $p < .05$, all two-tailed, $N = 260$.

Model 1: main effects entered only, Model 2: interaction effect added.

I plotted the significant interaction effect following procedures suggested in the literature (Cohen, Cohen, West, & Aiken, 2003). Figure 1 shows the regression equation at high and low levels of perceived HQ absorptive capacity (one standard deviation above and below mean). Post-hoc analyses (Aiken & West, 1991) revealed that inpatriates' boundary spanning is positively related to inpatriates' individual effort to share knowledge with HQ staff when perceived HQ absorptive capacity is both low ($b = .09$, $t = 2.55$, $p < .05$) and high ($b = .10$, $t = 4.88$, $p < .001$) and that the relationship is stronger when perceived HQ absorptive capacity is high.

Figure 1: The Relationship between Inpatriates' Boundary Spanning and Knowledge Sharing: Individual Effort at High and Low Levels of Absorptive Capacity



The regression results for Hypothesis 2b are presented in Table 4. Again, the interaction effect is significant, thus supporting a synergistic interaction effect of inpatriates' boundary spanning and perceived HQ absorptive capacity on perceived HQ staff effort to acquire knowledge.

Table 4: Interaction Effect of Absorptive Capacity and Inpatriates' Boundary Spanning on Knowledge Sharing: HQ Effort

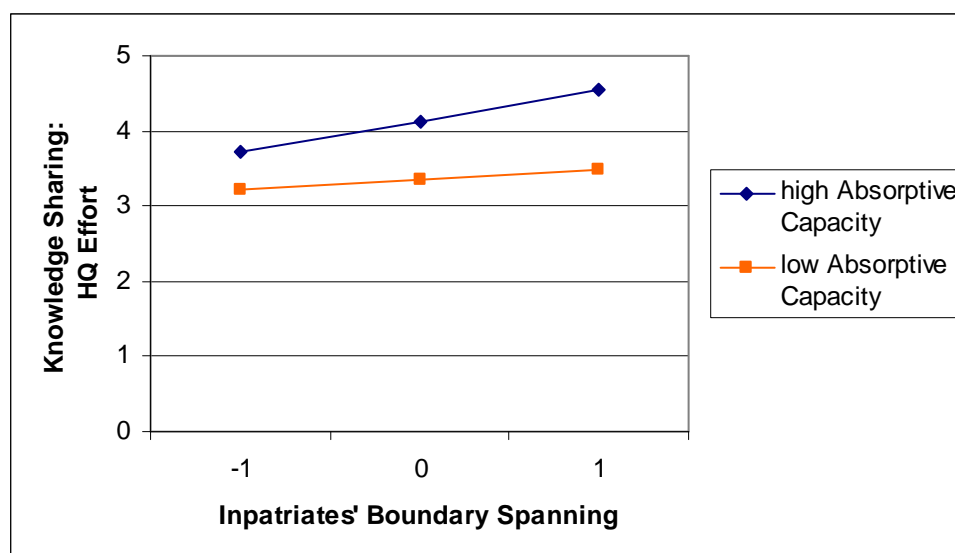
| Variables | Knowledge sharing: HQ effort | | |
|--|------------------------------|-----------------|-----------------|
| | Model 1 β | Model 2 β | Model 3 β |
| Knowledge exchange objectives | .26*** | .12 | .11 |
| Absorptive capacity | | .29*** | .28*** |
| Inpatriates' boundary spanning | | .19** | .20** |
| Absorptive capacity*Inpatriates' boundary spanning | | | .11* |
| R | .26 | .43 | .44 |
| R-square | .07 | .19 | .20 |
| Δ R-square | .07*** | .12*** | .01* |
| Adj. R-square | .06 | .18 | .19 |
| F-value model | 19.65*** | 20.69*** | 16.68*** |

*** $p < .001$, ** $p < .01$, * $p < .05$, all two-tailed, $N = 260$.

Model 1: controls entered only, Model 2: main effects added, Model 3: interaction effect added.

Figure 2 plots this interaction effect at high and low levels of perceived HQ absorptive capacity. However, in contrast to inpatriates' effort for knowledge sharing, post-hoc analyses demonstrated that inpatriates' boundary spanning is positively related to perceived HQ staff effort for knowledge sharing only when perceived HQ absorptive capacity is high ($b = .11$, $t = 4.11$, $p < .001$) but not when perceived HQ absorptive capacity is low ($b = .10$, $t = 1.60$, $p > .05$). This suggests that low HQ absorptive capacity removes the positive effect of inpatriates' boundary spanning on HQ staff effort to acquire knowledge.

Figure 2: The Relationship between Inpatriates' Boundary Spanning and Knowledge Sharing: HQ Effort at High and Low Levels of Absorptive Capacity



5. Discussion

This study highlights the roles of both inpatriates' social relationships at the HQ and HQ absorptive capacity for their knowledge sharing, thereby complementing the mostly conceptual understanding of inpatriates as knowledge agents in the literature (e.g., Harvey et al., 2001). While inpatriates' boundary spanning has a direct positive influence on their knowledge sharing with HQ staff, this effect is in general more substantial if the HQ possesses absorptive capacity. These findings hold over and above the existence of

knowledge exchange objectives that inpatriates are provided with as part of their HQ assignment.

The findings with regard to the moderating effect of HQ absorptive capacity suggest that whereas inpatriates' boundary spanning and the moderator enhance inpatriates' effort to share knowledge, low levels of perceived HQ absorptive capacity do not result in a positive relationship between inpatriates' boundary spanning and HQ staff effort to acquire knowledge. There are three explanations for this result. First, it is possible that inpatriates' effort to share knowledge with HQ staff entails a more explicit process of sharing knowledge in which the mere existence of social ties with relevant HQ staff is sufficient for inpatriates to exchange their local resources and explicate their tacit knowledge (Nonaka, 1994) to HQ staff. On the contrary, HQ staff effort to acquire knowledge may encompass a less explicit process of knowledge sharing in which HQ staff attempts to make sense of the tacit information received from inpatriates without explicitly addressing possible misunderstandings. Only if an adequate level of absorptive capacity exists among HQ staff they may be able to successfully interpret and understand the obtained information. Second, it is important to recall that the absorptive capacity measure used in this study tapped into the perceived ability of HQ staff to absorb knowledge in *cross-cultural* settings. These cross-cultural aspects correspond to what Lane et al. (2006) understand as the characteristics of learning relationships that drive absorptive capacity. We can assume that inpatriates, in making an effort for knowledge sharing, are likely to be more aware of and will explicitly take into account potential cross-cultural barriers. Given the marginal number of inpatriates at the companies' HQs, the cross-cultural nature of the exchange relationships with inpatriates may be less evident for HQ staff and, if not appropriately taken into account, may not result in successful knowledge sharing. Third, it is possible that HQ staff with a low ability to absorb knowledge in a cross-cultural context is simply not willing to make an effort to acquire

knowledge from inpatriates. Overall, these results refine the boundary conditions for the relationship between social conditions and knowledge sharing and extend our understanding of which types of social structure interact with absorptive capacity to create knowledge benefits. Indeed, it is not only an organizational unit's network position (Tsai, 2001) but also individuals' boundary spanning activities between different organizational units that gain from existing absorptive capacity.

Unexpectedly, the control variable measuring inpatriates' German language proficiency did not significantly influence any of the hypothesized relationships despite some evidence that inpatriates' lack of language fluency may limit their ability to share knowledge (Reiche, 2006). This indicates that the use of a particular company language or technical terms that are common across different languages may compensate for inpatriates' lack of host language fluency in maintaining work-related interactions at the HQ. There is, however, another explanation for this finding. As one respondent commented in the space provided at the end of the survey:

"I believe the most challenging and important barrier during the transition from a country to the other is the language barrier. The people are usually friendly and patient but in the day-to-day work they like to talk in German and this can be very stressful and limit the interaction during the first months."

Accordingly, language barriers may be most crucial in the very early stages of the assignment but then decrease in relevance as the assignee becomes more proficient in the host language. Unfortunately, given the low number of inpatriates who had just started their assignment, the study's sample does not allow a more detailed investigation of this argument.

6. Limitations and Conclusions

The study entails a few limitations that deserve attention. While the study's individual-level focus is instrumental in advancing the micro foundations of MNC knowledge

flows (Foss & Pedersen, 2004), the resulting measurement of the firm-level constructs as perceived by inpatriates constitutes a main limitation. For example, the occurrence of knowledge sharing between inpatriates and HQ staff was only captured through inpatriates' perceptions of extant knowledge sharing efforts both in terms of their own efforts and those of HQ staff. This may be particularly problematic with regard to the latter measure. Although the similarity of the empirical results across both knowledge sharing dimensions suggests that the perceptions are fairly robust, the study implicitly assumes that (1) inpatriates' perceptions of their own and HQ staff efforts for knowledge sharing are reasonable and (2) that knowledge sharing efforts translate into new knowledge creation. Thus, the study only indirectly measured a change in the stock of knowledge at the HQ. Future research would benefit from a more direct measure of knowledge outcomes. Given the importance of individual-level determinants for MNC knowledge flows, this will entail the use of cross-level data sets and analysis tools.

Additionally, the specific characteristics of my survey population and research context necessarily limit my findings to inpatriates in German MNCs. However, despite the inherent restrictions, we would assume the study to be replicable in various other contexts. Most importantly, given the cross-disciplinary nature of the social network concept (Kilduff & Tsai, 2003), its role as a main vehicle for knowledge sharing in organizations in general and MNCs in particular appears to be a highly generalizable finding, especially in the context of individuals' boundary spanning between dispersed organizational units. From this perspective, all international assignees serve as boundary spanners and thus offer the opportunity to initiate knowledge flows through their development of host-unit social ties. Considering organizational boundary spanners as the overarching unit of analysis therefore extends the scope of this study's findings.

In conclusion, my study indicates that inpatriates' knowledge sharing is a highly reciprocal phenomenon that depends upon the establishment of social ties and the knowledge sharing efforts of both parties to the exchange relationship. In this vein, the stock of prior knowledge and experience among HQ staff acts as a moderating condition for HQ staff to be able to absorb, value and leverage new knowledge acquired from inpatriates. As a result, the mere movement of inpatriates to the HQ is a necessary but insufficient condition for knowledge sharing to occur. Future research would clearly benefit from a more detailed analysis into the social and knowledge factors preceding knowledge sharing through international assignments in general and inpatriate assignments in particular.

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