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KNOWLEDGE SHARING HOSTILITY IN ACQUISITIONS*

ABSTRACT

This paper establishes a conceptual link between obstacles in the acquisition process and individual knowledge sharing hostility. While studies on failures of acquisitions exist from economics, finance, strategy, organization theory, and human resources management, this paper applies insights from recent literature on knowledge sharing hostility. We argue that this offers important insights into how individual behavior can prevent knowledge synergies in acquisitions. The paper outlines the specificities of knowledge synergies in three different modes of acquisition: (a) headquarters-oriented acquisitions, (b) subsidiary-oriented acquisitions, and (c) integration-oriented acquisitions. The paper then introduces a knowledge sharing hostility framework analyzing knowledge hoarding behavior, knowledge rejecting behavior, and behavior related to the substance of knowledge. The paper explores these dimensions in the three modes of acquisition.

KEYWORDS

acquisitions ■ acquisition failures ■ individual behavior ■ knowledge sharing ■ knowledge sharing hostility

Acquisitions are increasingly becoming part of today's business environment, and the world has experienced an unprecedented wave of acquisitions in the last decade. Globalizing competition, rapid technological developments, and industry consolidations have, among other factors, touched off an enormous increase in acquisitions. In 1990, 8,587 acquisitions worth USD 406.8 billion (cross-border figures were 2,572 deals worth USD 152.7 billion) increased to 20,280 deals worth USD 2,764.8 billion (cross-border figures were 6,520 deals worth USD 974.3 billion). The deal value peaked in 2000, while the number of deals peaked in 1999 at 24,113

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(OECD, 2001). The social justification for acquisitions is that they bring about improvements in the performance of the firms that are taken over or that acquiring companies improve their own performance through reverse transfers of resources from the acquired firm. A number of companies worldwide have made a conscious decision to make acquisition their core growth strategy: GE Capital Services, Computer Sciences Corporation, Vodafone Group PLC, Cisco, and International Service Systems are just a few examples. Others have concluded single acquisition deals and are intensively using other investment modes as well as licensing and alliances to support or redirect their development strategies. The Danish brewery Carlsberg, NEC, Renault, Novo Nordisk, and Intel are examples of the latter.

However, many acquisitions have been unsuccessful in the sense that they have failed to create value for investors. Research has suggested several theoretical frameworks for studying acquisitions and, in particular, the reasons for failure. Very & Schweiger (2001) have identified a number of problems related to the different stages of an acquisition as well as obstacles typical for the entire process. However, the tendency in most studies is to focus on the integration process after acquisition and in particular on integration barriers (Haspeslagh & Jemison, 1991; Pablo, 1994). The emphasis has been on cultural clashes (Buono et al., 1985; Nahavandi & Malekzadeh, 1988), communication difficulties (Schweiger & DeNisi, 1991), employees' perceptions and reactions (Risberg, 2001), and conflict resolution (Blake & Mouton, 1985). However, studies have largely been fragmented (Chatterjee et al., 1992; Schweiger & Walsh, 1990), focused on single issues and have produced mixed and even conflicting results (Seth, 1990). A notable exception is the work by Larsson & Finkelstein (1999), which has offered a broader process-oriented model integrating theoretical perspectives from economics, finance, strategy, organization theory, and human resources management.

The current paper offers an approach that has not been systematically explored in the literature. We argue that by borrowing insights from the recent literature on knowledge sharing hostility (Husted & Michailova, 2002) and applying them in an acquisition context, additional explanations can be found for why knowledge synergies in acquisitions and in particular in the post-acquisition process are often not realized. Although the contributions from the studies mentioned above are substantial, none has attempted to integrate explicitly important notions drawn from the merger and acquisition literature on the one hand and the knowledge sharing literature on the other. The latter has traditionally been occupied with issues such as the nature of the knowledge (Kogut & Zander, 1992), relationships between knowledge sharing and

competitive advantages (Mullin, 1996), the interactions between knowledge sharing and national culture influences (Chow et al., 2000; Smith et al., 1996), and the obstacles to efficient knowledge sharing (Davenport et al., 1998; O'Dell & Grayson, 1998). Much of this literature assumes that individuals are essentially positive towards knowledge sharing. Contrary to this, we argue, in line with Husted & Michailova (2002), that people have a deeply rooted resistance not only to sharing the knowledge they possess but also to reusing external knowledge. The objective of this paper is twofold: to identify the specificities of knowledge sharing hostility in an acquisition context and to establish a conceptual link between obstacles in the acquisition process and individual knowledge sharing hostility.

The potential for knowledge synergies in three modes of acquisition

Some of the acquisition literature makes the point that efficient knowledge sharing following acquisitions is imperative to capturing the value potential of knowledge synergies in acquisitions (Haspeslagh & Jemison, 1991; Capron & Mitchell, 1998; Bresman et al., 1999). Three modes of acquisition can be identified, depending on the specificities of knowledge synergies underlying the rationale for the acquisition. The first mode is when acquisitions are dominated by the headquarters (HQ) of the acquiring firm, i.e. the strategic decisions are taken by the HQ, the affiliate's autonomy is largely limited, and knowledge flows primarily from the HQ to the subsidiary in order to improve efficiency. We have termed this mode HQ-oriented acquisitions. In the second acquisition mode, a subsidiary's specific knowledge, skills, and actions constitute the rationale for the acquisition and the HQ aims to utilize these to improve its own performance. The subsidiary has a high level of independence and autonomy and is very unrestricted in the extent to which it localizes the HQ's philosophy and corporate behavior. Knowledge transfers go from subsidiary to HQ. We have termed this acquisition mode subsidiary-oriented. In the third mode, which we label integration-oriented acquisitions, the explicit objective is to leverage the knowledge of both the acquiring and the acquired partner. The target firm's knowledge constitutes the HQ's original strategic motivation, but the capturing processes take place through collaboration and two-way transfers of knowledge. The HQ and the subsidiary are typically interdependent in this acquisition mode.

Knowledge synergies in HQ-oriented acquisitions

Traditionally, the acquiring firm has been viewed as superior to the acquired firm, with mainly

one-way transfers of knowledge from the HQ to its new subsidiary (Gammelgaard, 2002). Different efficiency levels between the two firms create room for value creation through the improvement of practices in the acquired firm (Nooteboom, 1999), for example by the full utilization of intangible resources, such as specialists or high-tech equipment not fully used, or used for less efficient purposes (Itami, 1987). A more radical solution are rationalizations as described in the theory of 'the market for corporate control', where takeovers lead to the replacement of inefficient management (Manne, 1965). This situation approaches the phenomenon of hostile takeovers, and hostility towards the acquiring firm among the target firm's employees is a common feature of such acquisitions. This approach relates to what Haspeslagh & Jemison (1991) term 'absorption strategy', where the acquired corporation changes its organization to reflect the acquiring firm's systems and procedures, a situation that obviously alters the daily life of the acquired personnel.

Knowledge synergies in subsidiary-oriented acquisitions

During the 1990s, a series of takeovers took place where the knowledge possessed by the target firm was emphasized as a strategic acquisition motive (Chakrabarti et al., 1994; Hamil & Castledine, 1996; Bower, 2001). This kind of acquisition is motivated by a strategic intention to gain access to particular knowledge that is embedded in a specific target firm's activities in the form of innovation processes, personal skills, organizational routines, and learning processes, as well as the knowledge embedded in the target firm's external network relationships such as strategic alliances, customer relationships, and cooperation with local science centers. Through the acquisition the acquiring firm gains access to unique knowledge, and thus different to their own (Ahuja & Katila, 2001). The acquisition is chosen as the access mode since the target firm's knowledge is inimitable (Barney, 1991) or non-tradable (Wernerfelt, 1984). Acquiring firms choose different ways to explore the acquired knowledge. In the subsidiary-oriented approach, the acquiring firm prefers to preserve the acquired firm (Haspeslagh & Jemison, 1991) in order to prevent value destruction and to secure a continued uniqueness. The acquired firm therefore remains independent of the acquirer. One example of this is the polycentric-oriented multinational corporation (Pearlmutter, 1969), where subsidiaries to a high degree remain embedded in local relationships, and R&D aims to adapt products to local customers' requests. This type of strategy is followed by for instance the Royal Dutch/Shell corporation (Gassmann & von Zedtwitz, 1999). Other subsidiaries act as supportive scanning units, with the purpose of

creating or adopting local knowledge that is later disseminated through upstream transfers to HQ or to other affiliates (Chiesa, 2000).

Knowledge synergies in integration-based acquisitions

An increasing number of acquisitions do have the explicit aim of capturing the benefits of knowledge synergies. The rationale of a knowledge-based acquisition is to create synergistic effects by combining the resources of both the acquiring and the acquired firm (Wernerfelt, 1984; Karim & Mitchell, 2000). Synergy is created through learning effects, since the takeover gives both firms an opportunity to tap into knowledge areas located outside their normal organizational and cultural contexts (Zander, 1999). In an integration-based acquisition, the two firms' knowledge base will therefore be broadened through intensive in- and outflows of knowledge in both firms (Gupta & Govindarajan, 2000). Cooperation is emphasized in this symbiotic approach, where both organizations adapt and learn from the best practices of the other (Haspeslagh & Jemison, 1991). One example of a company oriented towards integration-based acquisitions is Cisco. It acquires firms with specific R&D capabilities within the Internet server and communication equipment fields. The company manages this tension extremely well, since it is part of its culture to acknowledge the superiority of the target firm (Bower, 2001). Cisco ensures that the top people of the acquired firm have a key position in the new organization, and in general the target firm is quickly integrated into the organization, normally within about three months. According to Inkpen et al. (2000), Cisco focuses first on people and then on how to do business. The success depends to a high degree on the acceptance by both firms' employees to cooperate with new colleagues, which again depends on how the acquired personnel are socialized into the acquiring culture.

Why do acquisitions fail? Answers from the literature

As is clear from the description of the three acquisition modes, capturing the potential benefits of acquisitions calls for efficient knowledge sharing between the individuals from the organizations involved. A recent survey by Schoenberg (2001) of 121 acquisitions by firms into continental Europe reveals that knowledge sharing plays an essential role in achieving operational synergy. However, although seemingly straightforward, sharing knowledge in and between organizations is far from a smooth, self-propelling process. The challenge becomes even greater when the aim is to harvest the benefits of knowledge synergies. Transferring and utilizing knowledge through

acquisitions can be a daunting task (Bresman et al., 1999). The merger and acquisition literature, and in particular those writings oriented towards the human side of acquisitions, suggests a number of relatively broad explanations why acquisitions fail to deliver the expected benefit. These accounts can be clustered in reasons related to cultural clashes, huge size differences, and a destructive asymmetry of power. These factors can result in opportunistic behavior and goal conflicts (Buckley & Carter, 1999).

Cultural differences are found to be a central source of clashes following a takeover. The amalgamation brings about cultural clashes manifested in negative behavior such as fights, absenteeism, unproductive work, stress, and sabotage (Cartwright & Cooper, 1994; Schoenberg, 2001). Acquisitions within the same country are not spared from major cultural problems (Buono et al., 1985), and even where there is a high degree of cultural compatibility (Cartwright & Cooper, 1993) or strategic fit (Chatterjee et al., 1992) between the two firms, cultural clashes may occur. The fact that one organization gains ownership of another, formerly independent entity creates a situation where changes can be forced onto the acquired firm's culture and identity. The pressure from the dominating culture will further increase subculture protectionism, as the acquired personnel may feel that their individual, group, and corporate identity is threatened. Ashkenas et al. (1998: 172) refer to the acquired personnel's 'psychodrama', since they walk onto the stage of the new company feeling anxious, insecure, uncertain, and even angry. Developing shared identity and mutual respect is important in preventing destructive cultural clashes in the entire acquisition process, and this is crucial to capturing knowledge synergies from acquisitions (Birkinshaw et al., 2000).

Differences in size between the acquiring and the acquired firm raise the issue of the physical manifestation of domination. Although no positive correlation has been found between firm size and achieved acculturation (Larsson & Lubatkin, 2001), when the acquiring firm is much larger in terms of capital, resources, and employees, size differences can be threatening to the target firm. The acquired personnel may feel that their career opportunities have suddenly changed (Greenwood et al., 1994), ambiguity increases regarding their future position in the new entity (Buono & Bowditch, 1989), and they may feel a loss of status (Elsass & Veiga, 1994).

When companies are purchased, the acquiring company demonstrates an asymmetric distribution of power, either consciously or unconsciously. The ways of signaling this asymmetry are numerous: playing the role of the main (and often the only) strategic decision-maker, introducing new capital and new technology, appointing its own staff in management

positions, changing policies and procedures, restructuring, 'right-sizing' etc. Whereas cultural factors and size differences remain relatively stable, there is a continuous shift in the (im)balance of power, since the acquisition partners usually have very different views on who brings what to the new relationship, what benefits are to be expected, and what costs are to be paid. Another important aspect of dynamics is related to the fact that substantial knowledge acquisition by one partner over time can erode the value of the knowledge contributed by the other partner, breaking down the bargaining relationship between them (Inkpen, 1998). This is a very likely outcome of subsidiary-oriented acquisitions.

The causes of acquisition failure mentioned above resulting from cultural differences, size, and power can all negatively influence the effectiveness with which members of the acquired and the acquiring organization share knowledge. In addition to these relatively broad explanations of acquisition failure in the merger and acquisition literature, we find a number of more specific explanations offered by knowledge management literature. These relate to the ability to capture knowledge synergies through knowledge sharing. An environment that fosters knowledge sharing is a key to exploiting learning potential at individual, group, intra- and interorganizational levels. Unlike most assets, organizational knowledge grows when shared (Quinn et al., 1996). Traditional and self-emerging knowledge sharing is, however, flawed by ineffectiveness and often depends purely on luck. It is restricted by people's tendency merely to seek the missing answers in the local environment. It is also random in terms of access to the best knowledge in the organization as opposed to merely finding a satisfactory solution.

To locate the reason for knowledge sharing problems, the knowledge management literature typically distinguishes between tacit and explicit knowledge (Choi & Lee, 1997; Kogut & Zander, 1993; Leonard-Barton, 1995; Nonaka & Takeuchi, 1995). At one end of the spectrum, knowledge is almost completely tacit: it is stored semiconsciously and unconsciously in people's brains and neural systems and it is uniquely personal and complex (Cole, 1998; Leonard & Sensiper, 1998). At the other end of the spectrum, knowledge is predominantly explicit and codified and thus more easily accessible to other people (e.g. blueprints, description of best practice, manuals). According to Zander (1999) and Szulanski (1996), tacit knowledge is more difficult to share than more articulated knowledge. The tacitness of knowledge creates stickiness in knowledge sharing and impedes the acquiring firm's ability to capture synergies (Szulanski, 1995). Between the two poles, knowledge is partly explicit or articulated and partly tacit, and applying explicit knowledge requires mastery of the associated tacit knowledge (Leonard &

Sensiper, 1998). As pointed out by Polanyi (1966), all kinds of knowledge include a tacit dimension. Some authors believe that all tacit knowledge can in principle be articulated (Nonaka & Takeuchi, 1995; Spender, 1996) as long as the organization is willing to bear the costs of doing it. However, in reality tacit knowledge is not only shared by articulation but also in a tacit form. Tacit knowledge can mainly be acquired through experimentation, learning by doing, and imitating the skills of superior performers within a field.

When knowledge is created, it has an implicit character in the sense that it takes a non-articulated form. In order to share and subsequently leverage the knowledge, one can choose to transfer it in a purely implicit form. In that case, knowledge sharing relies on costly and slow methods such as imitation and personal transfer and apprenticeship (Nonaka & Takeuchi, 1995). According to Inkpen (1998), the more tacit the knowledge an alliance partner seeks to acquire, the more difficult the acquisition. At the same time, the more tacit the knowledge, the greater the likelihood that it is valuable. An alternative is to articulate and codify the knowledge, for example as best practices, manuals, metaphors, cause-effect relations, and other kinds of documentation. The benefit of investing in codification is especially evident in an acquisition context since it is easier and quicker to leverage codified knowledge across time, distance, and users. This process of transforming knowledge from an implicit to an explicit state in order to transfer it and conversely to receive it is, however, not without cost either to the transmitter or the receiver (Grant, 1996; Jensen & Meckling, 1996).

Of greater importance, therefore, is the unawareness at both ends of the transfer, which is a major barrier to knowledge sharing (Szulanski, 1996). Potential receivers/users are often not aware of the existence of the knowledge they need, and likewise the potential sources are not aware that there may be a use for their knowledge somewhere else in the organization. This is especially true in acquisition cases since the two organizational entities were independent of and/or possibly unknown to each other prior to the acquisition. The larger the organization, the greater the problem of unawareness. As pointed out by Grant (1996) and Jensen & Meckling (1996), the solution to the problem of unawareness is not to share all knowledge created with everybody in the organization, but to strive to share only the relevant knowledge with those who need it. This will also subdue information overflows. However, the necessary condition in achieving this is to know in advance what specific knowledge is relevant and to whom. Knowledge sharing involves uncertainty regarding what specific piece of idiosyncratic knowledge is to be shared with whom in order to create benefits for the organization (Jensen &

Meckling, 1996). Nonaka (1994) suggests that efficient knowledge sharing depends on the willingness of individuals to signal to the organization what knowledge they possess and to share their knowledge when requested. The obstacles to the process of signaling are even greater in acquisitions because of organizational cultural differences and asymmetrically distributed power. When the new company experiences high ambiguity and the primary concern of the acquired personnel is to secure their jobs, one can expect a limited desire on the part of the personnel to share the knowledge they possess. Additionally, individuals and teams that have invested resources in building up a specific competence may not be willing to share this knowledge with others unless they are given the right incentives for doing so. At the same time, however, knowledge creation in firms today is highly dependent on relationships outside the firm and a pre-acquisition relationship often exists where firms have already established certain communication patterns prior to an acquisition, which makes the entire post-acquisition processes less troublesome.

It is clear from the above arguments that the prevalent research on knowledge sharing is primarily focused on the nature of knowledge in terms of tacitness and the problems of codification and articulation (Winter, 1987; Kogut & Zander, 1993) and the problem of identifying the exact location of necessary knowledge. Our level of analysis is the individual behavior of knowledge transmitters and knowledge receivers. Ideally, systematic knowledge sharing relies on individuals' autonomous and constructive behavior, but barriers to knowledge sharing reflect to a great extent barriers to interpersonal communication, and problems with sharing can only be fully understood by reference to the individual level (Empson, 2001). Bresman et al. (1999) point out, too, that the lack of knowledge sharing after a takeover is mainly caused by a lack of personal relationships among individuals in the acquiring and the acquired firm. Recent work on knowledge sharing hostility (Husted & Michailova, 2002) offers a fertile framework for analyzing knowledge sharing behavior at the individual level. We will build on this framework to examine knowledge sharing hostility in an acquisition context.

Knowledge sharing hostility in an acquisition context

Most organizations are to some extent hostile to knowledge sharing. This is not only because of the deeply anchored belief that they need to keep knowledge secret in order to maintain their competitive advantages, but also because the individuals working in the organizations are reluctant to share their knowledge. The sharing of particularly the valuable tacit knowledge is

essentially an individual decision. Similarly the decision about accessing knowledge — it is the individual who is confronted with a specific situation or a particular need who has to decide that her/his own knowledge base is not sufficient to solve a particular problem.

The matrix presented in Table 1 is an elaboration of the model of knowledge sharing hostility suggested by Husted & Michailova (2002). It distinguishes between three parameters: (a) the behavior of the knowledge transmitter, the person who possesses knowledge that someone else in the organization demands, (b) the behavior of the knowledge receiver, the person who needs knowledge input from someone else in the organization, and (c) the individual behavior related to the substance of the knowledge. The model suggests that knowledge sharing hostility on the transmitter side is related to hoarding knowledge, whereas the knowledge sharing hostility on the receiver side is associated with knowledge rejecting. According to the model, the substance-related behavior is associated with the attitudes towards sharing knowledge about mistakes and failures. By evaluating the three types of individual behavior, we can assess the level of knowledge sharing hostility in an organization. Following the model, individual behavior can be positioned on a scale ranging from mild hostility to strong hostility.

Table 1 Levels and dimensions of knowledge sharing hostility related to three types of individual behavior (modified from Husted & Michailova, 2002)

	Mild hostility	**Strong hostility**
Knowledge hoarding behavior	*Individual economic concerns* • Protecting competitive advantages • Timesaving • Fear of hosting 'knowledge parasites'	*Involvement in power games* • Coping with uncertainty • Avoidance of exposure • Focus on hierarchy and formal power
Knowledge rejecting behavior	*Professional pride* • Preferences for own ideas • Doubt about validity of external knowledge	*Maintaining status quo* • Strong group affiliation • Group thinking
Substance-related behavior	*Mistakes are unavoidable* • Negative colleague reaction • Career damage	*Mistakes are taboo* • Who to blame • Passivity

Knowledge hoarding behavior

According to Chow et al. (2000), both the propensity to hoard knowledge and the motivational factors behind such behavior depend on the nature of the knowledge to be shared, employees' national culture, the relationships among employees, and the culture of the workplace. Merchant et al. (1995) have pointed out that senior managers' education and experience, the company's stage of development and the company's type of business are also important factors when analyzing knowledge hoarding behavior. Industry specificities and functional areas should also be borne in mind when discussing the use of different channels and forms for knowledge sharing. In line with the defined level of analysis in this paper, we argue that although the factors mentioned above are relevant, the decision to share or to hoard knowledge is largely individual. The decision to hoard knowledge may be destructive from an organizational point of view, but often rational and well justified from an individual perspective. Organizational philosophies, norms, and values, by which people are evaluated according to what they know and do individually, naturally invite knowledge hoarding and perpetuate a behavior of playing one's cards close to one's chest. In organizations that are less hostile to knowledge sharing, knowledge hoarding is mainly an instrument supporting individual economic concerns, whereas in strongly hostile organizational settings, in addition to the importance of economic concerns, involvement in power games becomes decisive and often dominant (Table 1).

The *individual economic concerns* are related to the fact that individuals, and especially knowledge workers, associate their own market value and bargaining power with the quality and value of the knowledge they possess. They therefore fear that they may lose their bargaining position by sharing their relevant knowledge (Szulanski, 1995). Consequently, they resist the firm's attempts to establish property rights over their knowledge (Empson, 2001). In this sense, knowledge sharing hostility is a natural mechanism for protecting individual competitive advantages. Organizational structures and incentives, too, may tend to promote a tendency by individuals to optimize their own accomplishments and, as a consequence, conceal knowledge from other individuals. This is often linked with organizational cultures where it is accepted and even valued that people are 'territorial', i.e. that they hoard their knowledge in order to protect themselves and secure their own position. Particularly in environments characterized by a lack of trust, individuals are uncertain whether the reward of sharing knowledge will be appropriate (Empson, 2001; Teece et al. 1997). Reluctance towards spending time on knowledge sharing is another economic concern that contributes to knowledge sharing hostility. Knowledge sharing is

a costly process demanding a great deal of resources either to articulate knowledge or to share it in a tacit form, or both. The time spent sharing knowledge with others could be invested in what may appear to the individual to be more productive priorities. A third economic motive for hostility to knowledge sharing is the fear of hosting 'knowledge parasites'. The main reason why a person possesses knowledge that could be attractive to others is that the knowledge possessor has invested additional effort into acquiring this knowledge. Consequently, she or he may be unwilling to share the return on this investment with someone who has put less or no effort into her/his own development. In other words, a request for knowledge sharing can also mask a lack of effort and/or talent on the side of the individual making the request for knowledge sharing.

The potential loss of value and bargaining power is relevant to understanding individual knowledge hoarding behavior in acquisitions. Being subordinated to the dominant culture of the acquiring firm automatically lowers the organizational status of the acquired employees. Empson (2001) points out that knowledge hoarding in relation to loss of power increases after an acquisition and that this is a natural outcome of protecting what remains of one's position. At the same time, knowledge sharing may prove to be the only way to be recognized by the HQ, which delegates resources, decides on career developments, upgrades some organizational positions and downgrades others etc. The acquired personnel can for that reason, and from the viewpoint of purely individual economic concerns, initially be positive towards sharing knowledge with their new colleagues. The acquired personnel typically experience work overload immediately after the acquisition since they need to follow new orders while simultaneously carrying out their old duties. This work overload reinforces the inclination of individuals to hoard their knowledge because of economic concerns. The fear of hosting 'knowledge parasites' is also relevant, especially when the motive for the acquisition is to utilize the acquired firm's knowledge. In these cases it is natural for the acquired personnel to resist sharing the knowledge they possess in the absence of clear incentives for doing so.

In organizations that are very hostile to knowledge sharing, knowledge hoarding is driven by an individual urge to *become involved in power games*. In addition to the three features characteristic of mildly hostile environments, there are a number of further features in organizations that can be defined as strongly hostile to knowledge sharing. Coping with uncertainty is one such feature: the uncertainty relates to how the receiver uses the shared knowledge and for what purposes, and consequently whether the shared knowledge can damage the sharer's self-interests. Avoidance of exposure is another characteristic: it relates to the fact

that not all knowledge is robust or a good solution to a problem. By hoarding knowledge, individuals protect themselves against external assessment of the quality of their knowledge. A third important feature of strong hostility to knowledge sharing is the high respect for hierarchy and formal power, which leads potentially to two types of knowledge hoarding behavior. First, subordinates intentionally hoard their knowledge, knowing that their superiors would dislike subordinates who appear to be more knowledgeable than they are. Second, managers may deliberately hoard their knowledge to maintain power — for them knowledge could be a source of greater power rather than a basis for taking optimal managerial decisions. Difficulties in knowledge sharing between superiors and subordinates can also be detected in terms of barriers to knowledge sharing between old and new staff in an organization.

Knowledge hoarding differs in the three acquisition modes. It is essentially irrelevant in HQ-oriented acquisitions because of the strategic motivation of improving the acquired firm through knowledge sharing. Uncertainty regarding how the receiver uses the shared knowledge and the avoidance of exposure rather relate to the success of implementation than to knowledge sharing in acquisitions *per se.* Knowledge hoarding behavior is especially critical in subsidiary-oriented acquisitions. The acquired firm, when acting only as a transmitter of knowledge, emphasizes hoarding as an outcome of hierarchical pressures and of hosting parasites. This naturally leads to hostility, and lack of hierarchical power makes uncertainty high and provides no incentives for hoarding to be exposed. In fact, employees feel this uncertainty in predicting their future position and perhaps survival. In integration-oriented acquisitions, the interaction between the two firms over time usually modifies hoarding behavior. Exercising the give-and-take principle changes the HQ from a parasite to also being a contributor. Furthermore, the acquired firm needs to supply valuable knowledge to be positively assessed in its struggle for bargaining power. However, the time aspect is still highly relevant, and the hierarchical distance remains relatively great, since the context is an acquisition and not a merger of equals.

Knowledge rejection

Knowledge rejecting behavior is captured in the notion of the 'Not-Invented-Here' (NIH) syndrome. Katz and Allen (1982) define the NIH syndrome as the tendency of a project group of stable composition to believe it possesses a monopoly of knowledge in its field, which leads it to reject new ideas from outsiders to the likely detriment of its performance. According to Szulanski (1995), a potential knowledge receiver can choose among a number of behavioral

strategies for avoiding external knowledge, including procrastination, passivity, feigned acceptance, sabotage, or outright rejection in the implementation and use of new knowledge.

In organizations that are less hostile to knowledge sharing, doubt about the validity and reliability of external knowledge and the preference for developing in-house solutions are usually associated with organizational members' *professional pride* (Table 1). External knowledge is often rejected because it is more prestigious to create new knowledge. Another reason is that knowledge receivers often doubt the quality of the shared knowledge, possibly because they do not find the source trustworthy (Szulanski, 1995). In this case they will prefer to develop the specific knowledge themselves rather than going through a process of validation of the external knowledge before integrating it into their knowledge pool. At the same time, knowledge receivers do not always possess the necessary knowledge for assessing the quality of external knowledge. In those situations they will be even more inclined to develop their own knowledge.

Acquired firms placed in a dominating culture may find a need to manifest themselves through autonomous knowledge creating programs. Bower (2001) concludes in an analysis of among others R&D motivated acquisitions that the NIH syndrome is very much alive in today's technology giants, where in-house scientists resent outsiders and their alternative, and sometimes better, knowledge stock. From the acquired firm's perspective, the fact that the firm has lived its own independent life for decades or perhaps even longer creates an initial preference for its own knowledge compared to that of the other party in the acquisition. Similar behavior is described by Empson (2001) in the example of a merger of two professional consulting firms. In this case, knowledge resistance was due to certain interpretations of the partner's image. This negatively influenced the way they perceived the value and reliability of their new colleagues' knowledge. This ethnocentric interpretation was expressed by evaluating the partner firm's knowledge stock as simplistic and unsophisticated on the one hand, and insubstantial and unreal at the other. As a result, no efficient knowledge sharing took place.

Organizations that are strongly hostile to knowledge sharing desire to *maintain the status quo* under the motto 'Don't rock the boat'. This sometimes occurs explicitly, but more often behind a veil of minor, unimportant changes. Strong group affiliation may be a substantial inhibitor to knowledge sharing. In older companies with a low employee turnover, there are usually long-standing relationships among organizational members. The longer a group of people has been together, the higher the likely degree of ethnocentric behavior (Katz & Allen,

1982). As a consequence, organizational members tend to resist new external knowledge, since it might fracture not only the stability and familiarity of the particular group but also the continuity of the overall organizational development. In a well-defined group, a common set of values and beliefs among individuals creates a governance system in which the risk of opportunistic behavior is low. Therefore, knowledge sharing will take place within the group and only to a limited extent across different groups (Kogut & Zander, 1995; Bresman et al., 1999). As an outcome of an acquisition, the acquired personnel often consider their old culture highly valuable (Berry, 1980), and they will seek to protect positions and identities (Buono & Bowditch, 1989). The lack of alignment between different subcultures leads to conflict (Tajfel, 1981) and often to collision (Buono et al., 1985). The degree of acceptance of the counterpart's culture therefore depends on the acquired employees' wish to preserve their own culture and how attractive they find the acquiring firm's culture (Nahavandi & Malakzadeh, 1988).

The knowledge rejecting behavior might also take the shape of group thinking where a stable group, for example a project group or a management team, believes that it possesses a monopoly of knowledge in its field and therefore rejects new ideas from outsiders. Under the motto 'Why change a winner?', it is often perceived unnecessary or even disrupting to allocate resources to changing the way of doing things according to new external knowledge rather than continuing with the status quo.

In HQ-oriented acquisitions, it is likely that the HQ is confident of its own superiority, which leads to a deliberate or indulgent ignoring of capabilities in the acquired firm. Knowledge recognition then depends on coincidence or luck (Zander, 1999). Whether the acquired firm (the seller) rejects external knowledge depends on the seller's motive for acquisition: poorly performing or cash-strapped firms are often those taking the initiative to be acquired, and such firms will not reject knowledge following the takeover. In buyer-motivated takeovers, knowledge rejections are an outcome of assessment processes in the acquired firm, and even if knowledge is received, it will not be implemented and routinized (Szulanski, 2000). HQ-oriented acquisitions in particular relate to the existence of a dominant culture and this further perpetuates group affiliation behaviors. In subsidiary-oriented acquisitions, HQs are the primary knowledge receiver. Knowledge rejection in this case seems to be of lesser relevance, since strategically the acquired firm is an important supplier of knowledge. However, at an individual level, high levels of preferences for own ideas might always exist. In integration-oriented acquisitions, incentives still exist to build up social communities and to prefer own ideas and knowledge rather than

receiving external ones. However, as an outcome of integration, if effective, such behavior will predictably be minimized over time. Cooperation and knowledge sharing will therefore neutralize the time aspect of the NIH syndrome (Katz & Allen, 1982) where tenure negatively affects performance.

Behavior related to substance of knowledge

Mistakes and failures have long been recognized as important learning experiences and knowledge that can be shared with others to save time in similar situations in the future. Learning from mistakes is highly valuable not only at the individual level, but also at the group and organizational level. In less hostile knowledge sharing organizations it is accepted that *mistakes and failures are unavoidable* (Table 1) and, within certain limits, may be a valuable organizational asset. Such organizations try to ensure that any lessons or expertise, whether due to success or failure, are shared and valued. However, employees may still have some reservations that prevent them from openly and freely sharing insights about their failures, mainly because of potentially negative consequences, such as being evaluated as incompetent, hindering career advancement, or being placed on a potential list for redundancy. In organizations that are very hostile to knowledge sharing, *mistakes and failures are taboo*. They are covered up and are only shared in unavoidable situations and with an absolutely unavoidable audience. In such organizations people apply different strategies to avoid making (or realizing) mistakes at all — if one makes a mistake and realizes it, the aim immediately is to conceal it and remove any responsibility as fast as possible. In this type of organization, people have a great aversion to taking responsibility and try continuously to distance themselves from being associated with problems. The acknowledgement of the value of mistakes and failures is a more generic feature and it understandably relates more closely to business strategy in general than to the three particular acquisition modes. Even though the integration mode builds on knowledge sharing and cooperation, it might still be that only 'positive' knowledge is shared, and not mistakes and failures. Furthermore, anxiety about negative colleague reaction and career damage relates to personal beliefs and attitudes and therefore exists in all three acquisition modes. One may speculate, therefore, that HQ-oriented acquisitions may well be a fertile context for never discovering mistakes and that in subsidiary-oriented acquisitions individuals may indeed intentionally try to hide mistakes while fighting for positive assessments from the HQ.

Conclusion

Capturing synergies from knowledge sharing in acquisitions is a multifaceted and complex process which often becomes problematic. In this paper we have argued that an important reason for this, which is not well explored in the literature, is individual knowledge sharing hostility. This is justified rational behavior anchored in a number of reasons, although it is usually counterproductive from an organizational point of view. Individual knowledge sharing hostility can be analyzed in relation to the behavior of the knowledge transmitter, the behavior of the knowledge receiver, and the individual behavior related to the substance of the knowledge. The dimensions and features associated with these types of individual behavior can be clustered as knowledge hoarding, knowledge rejection, and attitudes towards mistakes and failures.

Acquisitions can be differentiated according to the specificities of knowledge synergies underlying the rationale for the acquisition. Whereas in HQ-oriented acquisitions knowledge flows primarily from the HQ to the subsidiary, subsidiary-oriented acquisitions are motivated by the knowledge possessed by the target firm and thus the direction of knowledge flow is the opposite, i.e. from the subsidiary to the HQ. The explicit objective of integration-oriented acquisitions is to leverage the knowledge possessed by both the acquiring and the acquired firm. These three acquisition modes constitute different contexts and present different challenges to knowledge sharing. Knowledge hoarding is an especially significant feature of knowledge sharing hostility in subsidiary-oriented acquisitions. HQ-oriented acquisitions are a particularly fertile ground for external knowledge rejecting behavior. They also present themselves a context where a never-discovering-mistakes mode is rather the rule than the exception. Subsidiary-oriented acquisitions also present a challenge in this respect, since individuals in the acquired firm may try to intentionally hide mistakes while fighting for positive assessments from the HQ.

In HQ-oriented acquisitions, knowledge sharing hostility mainly relates to the nature of acquisition, where the acquiring culture will be dominant. The NIH syndrome is likely on both sides, where headquarters act ethnocentrically and the acquired firm protects its own culture by adhering to pre-acquisition procedures. In subsidiary-oriented acquisitions knowledge sharing hostility is an outcome of protecting bargaining power and career opportunities as well as avoiding parasite behavior. Finally, in integration-oriented acquisitions all the elements of knowledge hoarding and rejecting behavior exist, but in a modified form. The acquired firm enhances its position by transferring knowledge rather than hoarding or rejecting it. Integration and collaboration appear to solve some of the hostility problems and are therefore advisable as a

follow-up strategy after the takeover.

This paper has explicitly integrated important notions drawn from the merger and acquisition literature and the knowledge sharing literature in order to offer explanations for acquisition failures which have been underestimated in previous research. In line with the argument that individuals have a deeply rooted resistance towards both sharing the knowledge they possess and reusing external knowledge, we have outlined the specificities of knowledge sharing hostility in an acquisition context. However, along with the benefits of our approach there are also some limitations. The level of analysis in this paper is the individual. We recognize that this implicitly positions the paper at one of the extremes in the debate on the extent to which it is possible to consider a concept of collective or organizational knowledge as different to that of individual organizational members. Although this paper is primarily focused on what triggers individuals' hostility to knowledge sharing, both in general and in acquisitions, we acknowledge the potential and the need to explore knowledge sharing hostility at group and organizational level. Additionally, the paper has established a conceptual link between obstacles in the acquisition process and individual knowledge sharing hostility without offering empirical evidence for the main arguments and conclusions. We regard both limitations as an important focus for future research.

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