Compatibility and unlearning in knowledge transfer in mergers and acquisitions

H. Emre Yildiz [a],*, Carl F. Fey [a,b]

[a] *Stockholm School of Economics, Sweden*
[b] *Stockholm School of Economics Russia, Russia*

Abstract   Despite wide recognition of the central role of knowledge and its transfer, extant research has focused much on some important aspects of knowledge transfer and paid little attention to others. We focus on two underexplored issues in the knowledge transfer literature, namely: (a) compatibility of new knowledge with recipients' needs, interpretations of its past experiences and its existing norms, and (b) organizational unlearning, which moderates the relationship between compatibility and extent of successful knowledge transfer. We examine different types and dimensions of knowledge compatibility and organizational unlearning within our proposed knowledge transfer process framework. We situate our discussion primarily within knowledge transfer in cross-border mergers and acquisitions. Based on the proposed model, we also offer propositions future research can test.
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1. Introduction

Scholars and practitioners alike have perpetually emphasized the importance and difficulty for organizations to create, utilize and leverage knowledge-based assets which are considered to be an important source of sustainable competitive advantage for firms in general and for Multinational Corporations (MNCs) in particular. Indeed, MNCs' superior ability to create and transfer knowledge internally has almost attained an axiomatic value and is argued to be their primary raison d'être (Hymer, 1976; Kogut & Zander, 1992). Further, the synergies expected from mergers and acquisitions often hinge on an acquiring firm's ability to successfully transfer knowledge to the acquired unit (Birkinshaw, Bresman, & Håkanson,

2000). Given the central role of knowledge and its transfer in the strategic and international management literatures, the string of studies on its antecedents and consequences has been constantly expanding during the last twenty years (Wijk, Jansen, & Lyles, 2008). However, the extant literature has focused much on some aspects of knowledge transfer and paid little attention to others. Thus, there is a need to highlight underexplored aspects of knowledge transfer and to bring forth new conceptualizations. In this article, we will focus on two such issues: the *compatibility* of new knowledge with the existing knowledge base of the recipient firms in the transfer process and the need for *unlearning* those parts of the existing knowledge base that are not compatible with the new knowledge that is subjected to transfer.

Our starting point is that the tacit vs. explicit dichotomy, which owes its roots to the classical work of Polanyi (1966) and seminal studies that follow arguments developed therein, dominates extant research on knowledge transfer. More specifically, identifying tacitness as the primary characteristic of knowledge that affects its transferability builds

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* Corresponding author.
E-mail addresses: Emre.Yildiz@hhs.se (H.E. Yildiz),
Carl.Fey@hhs.se (C.F. Fey).

on the assumption that the recipient unit is equally open to, and inclined to accept, different bits of know-how in so far as they are equally codifiable, teachable and observable. This assumption obscures the importance of other knowledge dimensions which may also play an important role in knowledge transfer. Building on the diffusion of innovations theory developed in the seminal work of Rogers (2003) as well as on different theories related to his work (behavioral theory of the firm and cognitive dissonance theory), we argue that the success of transfer of organizational knowledge depends on the extent to which these practices being transferred are compatible with (1) the needs of the recipient unit, (2) the earlier experiences of and the way these experiences are interpreted by the recipient unit, and (3) the values and norms residing in the recipient unit. The separate and joint effects of these three factors constitute the compatibility dimension of organizational knowledge which has been largely overlooked by knowledge transfer scholars in the literature.

In this paper we argue that organizational unlearning of the existing knowledge base, behaviors, and values systems paves the way for the effective adoption and institutionalization of new know-how. While organizational learning has been used as an overarching framework in extant theorizing of knowledge transfer, organizational unlearning has received little explicit attention. This neglect is in part due to the misguided conception that unlearning is subsumable under learning (Tsang & Zahra, 2008). Even though organizational unlearning is not necessarily a completely discrete and standalone organizational episode, as we elaborate below, it is an identifiable part of the organizational change process that can happen before, during or after organizational learning. The unique role and implications of organizational unlearning is also empirically documented in recent studies on international knowledge transfers (e.g. De Holan & Phillips, 2004; Tsang, 2008).

While our arguments on the relationship between knowledge compatibility and organizational unlearning can be applied to different cases of inter-organizational knowledge transfer, we position our discussion primarily within the context of knowledge transfer in cross-border mergers and acquisitions (M&As) for three main reasons. First, the (in)compatibility issue is especially paramount in cross-border M&As since the context within which practices are created (viz. acquirer as the source) and the context into which these practices are intended to be transferred (viz. the acquired unit as the recipient) likely differ substantially due to differences between parties' national and organizational cultures.[1] Therefore, the compatibility of knowledge becomes one of the most important of characteristics

affecting the success of the transfer process in the M&A context. Second, unlike greenfield subsidiaries where organizational culture develops from scratch, in M&As acquired unit starts with an existing set of routines, values and norms. The fact that acquired units are not "clean slates" when exposed to new knowledge sent by the acquirer makes it important to understand how the compatibility of affects the way it is perceived, made sense of and eventually adopted at the receiving end. Moreover, resistance to changes to the inflow of ideas and knowledge would likely be strong and pronounced in M&As due to the collective nature of this resistance. This makes it important and interesting to examine the role of organizational unlearning as a means for overcoming acquired unit's organizational unwillingness and/or inability to adopt, oftentimes, incompatible knowledge. Lastly, cross-border M&As are a good context to consider our research questions in, since with parties from culturally and institutionally different environments it is more likely to observe larger incompatibility problems and thus higher need for unlearning to resolve these issues.

2. Compatibility and unlearning in prior research

2.1. Organizational knowledge and its compatibility

Our use of the term knowledge follows others before us (e.g. Kogut & Zander, 1992) and encompasses both know-what (rather factual information that could be articulated and transmitted without substantial loss of integrity) and know-how (accumulated skills and expertise embodied in products processes, and organizational practices and routines, which help undertake organizational activities smoothly and efficiently). The compatibility of knowledge is relevant for both know-what and know-how since effective transfer of new knowledge solicits compatibility on both *objective* (e.g., compatibility of technical aspects of old and new innovations) and *subjective* (e.g., compatibility of value-laden nature of norms residing in the recipient and norms implied by the new know-how) grounds.

We borrow the definition of compatibility from the seminal work of Rogers (2003) where he defines it as "the degree to which [an innovation] is perceived as consistent with the existing values, past experiences, and needs of potential adopters" (p. 240). While Rogers' theory in general, and definition of compatibility in particular, refers to the diffusion of innovations within industries, since the basic arguments of the theory are quite generic, in our framework we shall extend his ideas beyond the transfer of technical innovations, and apply them to the context of transfer of organizational practices and know-how in M&As.

Compatibility is one of the most extensively studied factors in research on technology diffusion and adoption (Tornatzky & Klein, 1982). However, it is generally used to refer to the fit of new knowledge or innovation "with the current equipment, task requirements, and skill base in the users' workplace" (Leonard-Barton & Sinha, 1993: 1126). Thus, earlier studies have looked at the extent to which new know-what is compatible with previously introduced ideas

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[1] We acknowledge that knowledge transfer in M&As is not unilateral and that both acquirer and acquired unit can be the source and recipient in the two-way transfer of organizational knowledge. For the sake of clarity in our argumentation, however, we envision the acquirer as the source and the acquired unit as the recipient of organizational know-how in our postulates and model. Moreover, given that earlier phases of post-acquisition, for which our propositions are most relevant, are better characterized by one-way transfer of knowledge from the acquirer to the acquired unit (Bresman, Birkinshaw, & Nobel, 1999), the simplification of assigning the source and recipient roles to acquirer and acquired unit, respectively is reasonable.

and incumbent sets of skills and capabilities developed thereby. However, the other two dimensions of knowledge compatibility (compatibility with needs and shared values) have received comparatively little attention.

Based on the definition above, we will bring in two quintessential lines of demarcation for the construct of knowledge compatibility as we use it in our current study. First, despite its central role in knowledge transfer and organizational learning studies, the concept of absorptive capacity fails to explain the varying rates of knowledge adoption due to its over-aggregated and static conceptualization and measurement. Moreover, with its conventional operationalization, absorptive capacity can only capture the *quantity* of a recipient's knowledge base, whereas impediments to effective transfer of knowledge arising from incompatibility problems are mostly the result of the relative characteristics of a recipient's existing base of knowledge vis-à-vis the new knowledge.

Second, even if some implications of the compatibility dimension are touched upon by earlier studies on the standardization vs. adaptation of organizational practices by MNCs (e.g., Fey, Morgulis-Yakushev, Park, & Björkman, 2009; Rosenzweig & Nohria, 1994), this stream of research mostly takes up the issue on the national level and looks at how differences across countries are reflected in the way practices are modified and made compatible with local needs. Hence, similar to absorptive capacity research, studies on standardization vs. adaptation approach the matter on an over-aggregated level of analysis. Therefore, a micro-level treatise of the role of compatibility in knowledge transfer is still missing and in order.

The relevance and importance of the compatibility dimension for effective knowledge transfer in M&As can be better understood by underscoring the fact that sender (acquirer) and recipient (viz. acquired unit) organizations used to operate under different sets of norms and values prior to the acquisition because of the differences in their cultural backgrounds. Therefore, knowledge transfer in M&As is more prone to hazards and problems emerging due to incompatibilities between what the acquired unit knows, needs, and believes in and what the knowledge sent by the acquirer has to offer. This point is also well documented in Björkman, Stahl, and Vaara (2007), where the authors discuss the role of cultural differences and how those differences affect complementarity and transfer of capabilities between merging firms. While we acknowledge the theoretical correspondence between the dimensions of complementarity and compatibility, it is important to underscore that complementarity is about differences whereas compatibility is about similarities between sender/acquirer and recipient/acquired units. We shall further note that the complementarity refers to the value enhancement potential of different sets of capabilities when used in tandem whereas the compatibility is more about whether or not these sets of capabilities can be used in combination in the first place.

2.2. Organizational unlearning

The intuition behind the concept of organizational unlearning can most succinctly be described by the observation that "as much as change is about adapting to the new, it is about detaching from the old" (Burt, 1980, cited in Rogers, 2003:

192). This contention implies that organizational learning and organizational unlearning should be conceived of as two sides of the same coin; complementing, preceding and following each other as two intertwined phenomena that belong to the same overarching framework of organizational change.

That said, however, students of organizational learning, in general, and knowledge transfer, in particular, have almost exclusively directed their theoretical and empirical attention to how firms get *attached* to new knowledge at the expense of omitting the ways with which they become *detached* from the incumbent knowledge. This approach implicitly contemplates the recipient firms as if they have no cognitive and affective commitment to preexisting courses and means of action which are intended to be replaced by the new knowledge. We believe it is important to consider the recipient's commitment to earlier ideas and practices, and how this commitment can act as a barrier in knowledge transfer. This is because; there appear to be two easily fallible assumptions needed to justify earlier neglect of the existence of and/or the recipient's commitment to preexisting ideas and practices: (1) organizations and/or members of organizations are clean slates when they come across with new ideas and knowledge (Newstrom, 1983), (2) the mental and emotional costs of switching from one course of action to another are rather trivial.

Once we acknowledge the problematic nature of detaching from the old routines and practices and the constraints it poses on the openness of the recipient unit to adopt new knowledge, the case for a better understanding of organizational unlearning becomes stronger. Despite intuitive appeal, surprisingly few scholars (Hedberg, 1981; Starbuck, 1996; Tsang & Zahra, 2008) have examined unlearning. Despite this, there is a need for a more rigorous definition and dimensionalization in order to distinguish organizational unlearning from organizational learning, change and contextual adaptation.

We borrow the definition of organizational unlearning as "the discarding of old routines to make way for new ones, if any" (Tsang & Zahra, 2008: 1437).[2] Note that this definition (1) assumes unlearning as a necessary precursor for learning new routines *if and only if* there are incompatibilities between the old and new, (2) attributes a purposeful nature to unlearning, (3) is mute regarding an objective inferiority/superiority of new routines vis-à-vis old ones, (4) embraces the cases where unlearning is not followed by learning (Tsang & Zahra, 2008).

Having defined its scope, we propose that organizational unlearning has *cognitive*, *behavioral* and *normative* dimensions. First, organizational unlearning involves eliminating existing cognitive structures through which things are seen, selectively perceived and attended to. Abandoning old cognitive frames, which would have filtered out new ideas and knowledge, is particularly important whenever these new ideas and knowledge are conflicting with the current frames of reference. Thus, cognitive unlearning helps organizations receive previously unperceived and/or disregarded new knowledge. Second, organizational unlearning has a behavioral dimension, which manifests itself through the changes in routines, standard operating procedures, day-to-day prac-

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[2] We stick to the original wording "routines", but this shall not limit the applicability of this definition to other forms of organizational knowledge defined in the earlier part of this section.
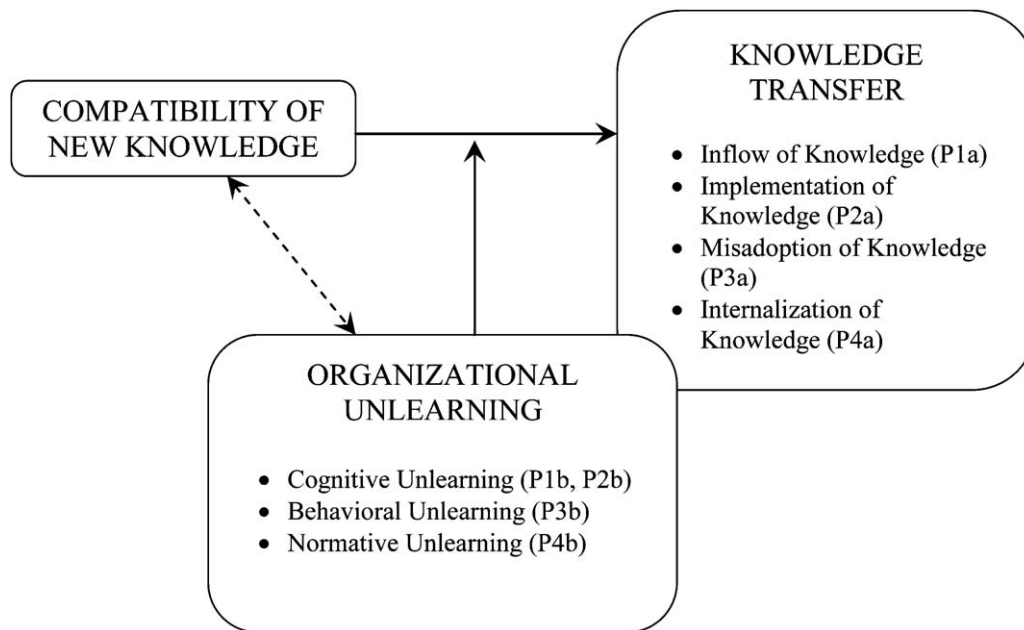
Fig. 1 Model of knowledge transfer with expected roles of different dimensions of knowledge compatibility and organizational unlearning.

tices, etc. It is important to emphasize that, even after seeing and understanding the value of new knowledge as a result of cognitive unlearning, organizational members may not detach themselves from old routines and repetitive practices. Aside from escalation of commitment and status quo bias (Kim & Kankanhalli, 2009), this detachment process is problematic since these routines and practices could have become habitual and followed unconsciously. Therefore, the behavioral dimension of organizational unlearning entails the discarding of not only conscious and deliberate actions but also subconscious patterns of behavior. Lastly the unlearning process entails a normative dimension in the sense that old routines and practices become deinstitutionalized—detached from values and delegitimized. Its collective and profound nature increases the time and managerial effort required to realize normative unlearning. Therefore, it could be quite difficult, but not impossible, for normative unlearning to occur.

3. Compatibility and unlearning in context: a preliminary model

In an effort to demonstrate the relevance of knowledge compatibility and organizational unlearning, it is important to specify and position the role of these two phenomena within the larger framework of knowledge transfer process (see Fig. 1). Before going into the details of the model, the bilateral relationship between incompatibility and unlearning (depicted with the double sided arrow linking these constructs) merits a brief elucidation. We conjuncture a two-sided relationship between these constructs simply because neither compatibility nor organizational unlearning are completely exogenous to each other. That is, higher degrees of knowledge incompatibility may lead firms to employ additional measures and levers to realize required unlearning, at the same time as firms with dynamic cultures and/or perpetual routines to discard old and obscure knowledge/

values would be less likely to experience incompatibility as a constraint for knowledge transfer. Thus, since both of these constructs are endogenous to and dependent on each other, the causality between compatibility and unlearning could go both directions. Therefore, we decided not to develop specific hypothesis regarding this relationship and that's why we opt to portray it with a dashed line. Instead, as we demonstrate in the schematic framework, we envision and hypothesize different dimensions of unlearning to moderate the relationship between different types of incompatibility and successive stages/phases of knowledge transfer process.

Our model integrates different approaches to the knowledge transfer process by looking at both the extent of knowledge *inflows* into the recipient units (Ghoshal & Bartlett, 1988; Gupta & Govindarajan, 2000; Harzing & Noorderhaven, 2006; Minbaeva, 2007) and the success of the transfer in terms of extent to which knowledge is *implemented* and *institutionalized* at the recipient units (Kostova, 1999; Kostova & Roth, 2002; Lervik, 2005; Szulanski, 1996). Even though our model integrates both approaches to knowledge transfer, we envision knowledge to be transferred successfully whenever the experience of one unit (the source) is transmitted to another (the recipient) *and* this transmission is manifested through a *sustained* change in the knowledge, behavior and performance of the recipient unit (Argote & Ingram, 2000).

3.1. Inflow of knowledge

In certain cases of knowledge transfer, the potential recipient of organizational knowledge engages in a problemistic search, which is "stimulated by a problem and is directed toward finding a solution to that problem" (Cyert & March, 1963: 121). The condition that the recipient unit has a problem to solve and the sender unit has a possible solution to this problem does not, however, ensure that knowledge will smoothly flow between these units (Monteiro, Arvidsson, & Birkinshaw, 2008). Following Rogers (2003), we argue that

the transfer of knowledge starts with the aforementioned problemistic search process where potential recipients decide to get more ideas about the knowledge/possible solutions available at the sender. However, as noted before, this exposure is substantially shaped and limited by the potential recipient's cognitive filters and frames of reference (Bettis & Prahalad, 1995). This is especially relevant in the case of M&As, where the cognitive schemes of the recipient unit (the acquired firm) are more established and rigid due to its pre-acquisition existence and background. This makes it less likely that any piece of knowledge/solution sent by the source (the acquirer) would pass through the acquired unit's cognitive filters and be perceived and attended to, as long as this knowledge is incompatible with the current needs and problems. This leads to the conjuncture that:

P1a: The higher the compatibility between needs/problems perceived by the acquired unit and the solutions/knowledge available from the acquirer, the higher will be the inflow of knowledge from latter to former.

The constraints imposed by these perceived incompatibilities on knowledge inflows could be lowered if the acquired unit unlearns its existing filtering mechanisms. Simon (1959: 273) defines these mechanisms as "an active process involving attention to a very small part of the whole and exclusion, from the outset, of almost all that is not within the scope of attention". Therefore, discarding the way the domain and range of attention is defined, which would go in tandem with redefining the focus and thread of new cognitive filters, would help acquired unit to pay more attention to what the acquirer has to offer that would otherwise be perceived as incompatible or negligible. This leads the contention that:

P1b: The negative effect of the incompatibility of new knowledge on its degree of inflow from acquirer to the acquired unit will be weaker as the extent of acquired unit's cognitive unlearning increases.

3.2. Implementation of knowledge

In some other cases the sender could initiate the process of transferring new knowledge into the acquired unit, in lieu of a problemistic search process inaugurated by the latter. This is especially the case in the context of M&As where the new owner often imposes certain practices on the acquired unit in order to align its organizational routines and procedures with other units of the same MNC.

Yet, exposure to new knowledge does not necessarily mean that it will automatically be accepted and adopted by its potential users. As Kostova (1999: 308) nicely puts it, "subsidiary [recipient unit] managers may, intentionally or not, decide not to implement a particular practice while reporting otherwise to headquarters [sender unit]. They may implement practices only partially, adopting those components that they feel 'people here will buy in' and ignoring the rest. In some extreme cases, local managers [...] do not even consider complying with implementation requests". Thus, it stands to reason that there would be an imperfect correlation between the extent of knowledge inflows to the recipient unit and the amount of knowledge it actually utilizes and implements.

We argue that, among other factors, perceived compatibility of the new knowledge with past experiences, and more importantly the way these experiences are remembered and interpreted, is an important factor that determines what employees from the recipient unit will likely buy into. As Rogers (2003: 243) argues "old ideas are the main mental tools that individuals utilize to assess new ideas and give them meaning". This is particularly pertinent for knowledge transfer in international M&As. This is because the acquired unit has a history of its own experiences, mistakes, and achievements and, therefore, has developed its own ideas and ways of doing business prior to the acquisition. Moreover, due to multiple layers of cultural and contextual differences between the parties, the divergence between knowledge transferred by the acquiring firm and knowledge possessed by employees in the acquired firm could be higher in international acquisitions. Hence, we expect the *rate of knowledge implementation* (the extent of exposure to the knowledge sent by the acquirer vs. the extent to which the knowledge sent by the acquirer is implemented) to be lower when the acquired unit finds new knowledge to be impractical or nonviable due to its incompatibility with earlier experiences. This leads to the proposition that:

P2a: The higher the compatibility between past experiences as perceived and interpreted by the acquired unit and the knowledge sent by the acquirer, the higher will be the rate of knowledge implementation.

That being the case, however, cognitive unlearning could help acquired unit employees to discard "inappropriate or poorly developed mental models of an environment [which] will result in an individual making poor responses to environmental stimuli leading to undesired consequences" (Mezias, Grinyer, & Guth, 2001: 73). In the specific case of knowledge transfer, such undesired consequences would be lack of acquired unit's willingness to understand and implement knowledge already sent by the acquirer. Therefore, concealing the incompatible parts of past experiences and interpretations of these experiences would play a key role in fostering the acquired unit's ability and willingness to put new knowledge into practice. Accordingly, we propose that:

P2b: The negative effect of incompatibility of new knowledge on its rate of implementation will be weaker as the extent of acquired unit's cognitive unlearning increases.

Even after the recipient unit gets exposed to new knowledge and puts the new knowledge into practice, there is no guarantee that this implementation will generate the intended benefits. Rogers (2003) calls it the problem of *misadoption* where previous experiences of an innovation's targeted end-users lead them to understand and utilize it incorrectly. Similar problems may also arise in the case of interunit knowledge transfer, where efficient and effective replication of organizational practices and routines could be crippled by misunderstandings and misapplications at the receiving end (Szulanksi, 1996).[3] We argue that interaction between newly introduced knowledge and the knowledge already residing in the recipient firm could be one of the

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[3] Here, we are considering replication as the process through which knowledge assets are leveraged, utilized and exploited in different units (Winter & Szulanski, 2001). Even though deviations from intended plans and means of implementing knowledge assets do not have to be inferior and erroneous (cf. Lervik et al., 2005), we focus on the cases where recipient's misunderstanding of the knowledge leads to unintended and undesirable/unsatisfactory consequences.

reasons for those misunderstandings. With the same logic we have been following thus far, knowledge transfer in M&As are more susceptible to misadoption problems. This is because; unlike greenfield subsidiaries, acquired units would have incumbent experience, knowledge and practices that can act as subtle reference points through which newly introduced and accepted ideas could be (mis)conceived and (mis)applied. Besides providing erroneous points of reference, pre-acquisition experiences of the acquired units could also instigate a kind of ''legacy of the past''. This legacy may prompt people to revert back to their previous behaviors during times of stress and uncertainty, which is typically the case in most of M&As (Schweiger & Denisi, 1991). As a result of this, effective implantation and integration of new ideas and practices in the acquired unit would remain limited at best, and would come to a standstill at worst. Thus, we suggest that:

P3a: The higher the compatibility between past experiences/ideas as perceived and interpreted by the acquired unit and the knowledge sent by the acquirer, the lower will be the rate of misadoption.

The unlearned legacy of the past may also induce individuals to try to amalgamate old types of behavior with newly acquired knowledge so that they can adapt to and make better sense of the new situation. Whilst this kind of combination does not necessarily lead to mistaken end results, we can expect otherwise if the new and old knowledge are not compatible with each other. Should that be the case, misadoption could be avoided by discarding old patterns of behavior so that new knowledge would not be tainted by existing habits and, therefore, can astutely be implemented. Therefore, we suggest that:

P3b: The positive effect of the incompatibility of new knowledge on its rate of misadoption will be weaker as the extent of acquired unit's behavioral unlearning increases.

3.3. Internalization of knowledge

To the extent that new knowledge starts to get implemented in the recipient unit, adopters individually and collectively develop cognitive and affective attachment to this new knowledge. Probing into this eventual stage of the transfer process, a limited number of earlier studies have examined the antecedents of recipient unit employees' ownership of, commitment to, and satisfaction with the transferred knowledge (Kostova, 1999; Kostova & Roth, 2002; Lervik, 2005). Building on this stream of research, we shall consider the phase after new knowledge starts to get implemented and fused into the new organizational context of the recipient. More specifically, we aim to relate the role of compatibility between newly adopted knowledge and the recipient unit's existing values. To that end, we will largely build our arguments on cognitive dissonance theory (CDT), which was incorporated in diffusion of innovation theory (Rogers, 2003) with a similar motivation to our own. Originally developed by Leon Festinger and colleagues (e.g. Festinger, 1957; Festinger & Carlsmith, 1959), the main premise of CDT is that it is unpleasant for people to hold two piece cognitions[4] that are not consistent with each other. This creates cognitive dissonance. The higher the inconsistency

between cognitions and the higher the perceived importance of inconsistent cognitions, the stronger would be the motivation to reduce cognitive dissonance. A rich body of experimental studies on CDT has shown that upon experiencing inconsistency between their attitudes and behavior people tend to either change their attitude to make it consonant with the behavior or cease to perform the behavior (or avoid/discard knowledge that implies or justifies this behavior) to keep their ex ante attitude the same (Cooper, 2007; Mills, 1965).

In the specific domain of transfer of organizational practices, the aforementioned premise of CDT is also referred to by Kostova (1999), who underscores that ''the success of transfer will be affected by the compatibility between the values implied by the particular practice and the values underlying the culture of an organizational unit'' (Kostova, 1999: 317). Ergo, when the values implied by the new knowledge do not follow from the existing norms and values of the recipient unit, CDT guides us to expect the adopters of new knowledge to experience cognitive dissonance. In order to deal with dissonance, recipient unit employees can apply one of the three dissonance reduction strategies: (1) they can *change their attitudes* in favor of the behaviors implied by the knowledge [high internalization of and psychological commitment to the new knowledge], (2) they can keep its implementation as a *ceremonial adoption* at a rather shallow level [low internalization with minimum psychological commitment] or (3) they can *discontinue* to follow the behaviors implied by the knowledge so that the one of the dissonant cognitions is rendered irrelevant.

Even though different dissonance reduction strategies can be found in studies looking at the long-term attitudinal outcomes of cognitive dissonance (Greenbaum, 1966), we expect the first option (attitude change) to be relatively unlikely as a default choice considering the higher mental and emotional costs associated with changing attitudes.[5] These costs are particularly high in M&As, since acquired units are likely to have strong affective and cognitive bonds with pre-existing norms and values. Therefore, the very existence of pre-existing shared values and associated norms makes it less demanding and more likely for acquired units to choose ceremonial adaptation or discontinuance of incom-

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[4] We use the term cognition to stick to the original terminology used by Festinger. Generally speaking, cognitions refer to a wide array of knowledge. As indicated by Cooper (2007: 6) cognitions ''can be knowledge of a behavior, knowledge of one's attitude or knowledge about the state of the world''.

[5] This may read as a counterintuitive proposition for an informed reader of the CDT literature, where the typical finding is that individuals change their attitude to reduce the dissonance aroused by the behavior (see Cooper, 2007). However, in almost all of the experimental designs, subjects are induced to engage in a one-time behavior that is dissonant with their ex ante attitudes. Performing the dissonant behavior only in one occasion compels these subjects to change their attitude to reduce dissonance, since the behavior is already performed and the implications thereof cannot be reversed. However, we can argue that this may not always be the case in the realm of organizations, where routines and practices involve repeated behavior. Thus, members of organizations will always have the option of refusing to perform the specific type of behavior that creates the dissonance at the first place.

patible knowledge, compared to greenfield subsidiaries. Accordingly, we propose that:

P4a: The higher the compatibility between acquired unit's norms and value systems and the knowledge sent by the acquirer, the higher will be the rate of knowledge internalization.

Unlearning residing values and norms could reduce the probability that employees would get rid of cognitive dissonance with minimum or no internalization of new knowledge. In fact, employing organizational unlearning initiatives can be considered a mechanism through which the mental and emotional costs of reducing cognitive dissonance via attitudinal change are transferred from individuals to the organization. This way, employees may find it preferable to change their preexisting attitude to fit with newly adopted behaviors, not the other way around. Consequently, one can observe increased enthusiasm among recipient unit employees for making stronger psychological commitments to the transferred knowledge. In other words, enacting normative unlearning could mitigate the risks of ceremonial adoption and discontinuance. Therefore, we expect that:

P4b: The negative effect of the incompatibility of new knowledge on its rate of internalization will be weaker as the extent of acquired unit's normative unlearning increases.

4. Conclusion and implications for research

Our starting point in this article was that the dominance of tacit vs. explicit dichotomy in knowledge management literature obscures the importance of other dimensions of knowledge, which may play equally important role in the process of knowledge transfer. Building on the *compatibility* dimension of knowledge as identified by Rogers (2003), we argue that the success of knowledge transfer depends on the extent to which these practices are compatible with recipient units' needs, interpretations of prior experiences and existing values. In case this compatibility is lacking and/or so little so that the success of knowledge transfer is jeopardized, we argue that organizations should unlearn those parts of their extant cognitive structures, behavioral habits and normative values that cause the incompatibility of new knowledge. To supplement this argument, we identified different sub-dimensions of unlearning and related each sub-dimension with different sources of knowledge incompatibility along the sequential phases of knowledge transfer process.

Although we claim that explicit consideration of the roles of knowledge compatibility and organizational unlearning is warranted in various forms of inter-organizational knowledge transfer, our discussion and propositional inventory are especially relevant and useful in examining knowledge transfer in M&As. Contextualizing our model in M&As is important not only because effective transfer of knowledge in M&As is critical to achieve synergies and high performance in post-acquisition phase (Birkinshaw et al., 2000), but also due to the fact that it is difficult for an acquired unit to reconcile the experiences it has garnered in its *pre-acquisition life* with new knowledge it receives in the post-acquisition phase especially in the case of international M&As. With international M&As accounting for 80% of foreign direct investment (Barba-Navaretti & Venables, 2004), obtaining a better

understanding of important integration processes in international M&As like knowledge transfer, such as this article strives to facilitate, is especially important.

Several implications for future empirical research and further theory development emerge from the current study. First and foremost, the theoretical treatise of knowledge compatibility and organizational unlearning invites future research to put the ideas and propositions we offered into sound and rigorous empirical test. To that end, a new research agenda can be initiated first by developing measures for compatibility and unlearning and/or identifying useful proxies for reliably measuring the magnitude and significance of these constructs. There is a great need for going beyond technical and practical aspects of knowledge compatibility (cf. Tornatzky & Klein, 1982) by incorporating the compatibility of values and norms embedded in the transferred knowledge with values and norms residing in the recipient/acquired units prior to the transfer process. This is especially important in the study of international M&As where lack of compatibility is often a key issue. Indeed, normative and value-laden aspects of *knowledge compatibility* could also be linked with the notion of *cultural compatibility* developed in M&A literature (e.g. Very, Lubatkin, & Calori, 1996). This could be especially useful to understand the extent to which source/acquiring and recipient/acquired units' corresponding national and organizational cultures affect the diffusion of knowledge by the former and utilization and evaluation of knowledge by the latter.

Furthermore, the importance of organizational unlearning can be studied within or alongside with the research stream on sociocultural aspects of post-acquisition integration (Stahl & Voigt, 2008). We conceptualized organizational unlearning as a phenomenon occurring only at the recipient unit, whereas recent studies underscoring the mediating role of social integration in capability transfer in M&As (e.g. Björkman et al., 2007) suggest that both sender/acquirer and recipient/acquired units engage in unlearning at their own ends as a result of social integration and mutual convergence of cognitive schemes, behavioral patterns and norms. It could be an interesting endeavor for further studies to theoretically and empirically examine such two-way unlearning process especially in cases where there tend to be greater differences such as is the case international M&As.

Even though one of the main motivations of the current study was to emphasize the importance of organizational unlearning for the success of transfer of organizational practices in M&As, it is by no means our intention to argue that acquired units should discard all of the knowledge base they have possessed prior to the acquisition. Instead, we think the success of M&As hinges very much on retaining the skills and capabilities of acquired units, especially those that are highly compatible with and complementary to acquirers' (cf. Björkman et al., 2007). Thereby, organizational unlearning could at times lead to negative outcomes, especially when it is purposeless and/or involuntary and therefore brings about leakage of otherwise useful and essential knowledge. However, we claim that organizational unlearning for acquired units is imperative so long as there are unavoidable incompatibilities between old and new knowledge which is often the case. Thus, acquired units need to unlearn (old knowledge with low compatibility and complementarity) and learn (new knowledge with high compatibility and

complementarity) at the same time and exploring the dynamic relationship between these endeavors affords another avenue for future research.

While we did problematize the question "why firms should unlearn?", we left the question "how firms can unlearn?" unanswered and did not delve deeper into the organizational initiatives and managerial levers that can help firms unlearn. To address these issues, as well as to complement the studies looking at the function of different human resource management practices in fostering absorptive capacity and knowledge transfer (Minbaeva, Pedersen, Björkman, Fey, & Park, 2003), future research could examine the role of such practices in achieving different forms of organizational unlearning. For example, it would be useful to empirically verify the presumably positive role of internal communication and training in cognitive and behavioral unlearning, respectively. However, when it comes to normative unlearning, some human resource management practices like compensation and promotion schemes may function as double-edged swords. On the one hand, these schemes and policies may increase the motivation of acquired unit employees to unlearn old norms and values and change their attitude and behavior in line with new knowledge by accepting and internalizing the prescriptions, norms and values implied thereby (Pfeffer, 1994). On the other hand, studies on CDT suggest that these kinds of reward mechanisms may undermine long-term attitudinal change since they provide individuals with external reasons to justify their newly adopted behavior (Cooper, 2007). Therefore, it would be interesting to examine the conflicting effects of these organizational levers on behavioral and attitudinal dimensions of unlearning. Another useful direction for future research would be to conduct an empirical study of knowledge transfer where one tries to capture the unlearning process.

Acknowledgements

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