

KNOWING, FORGETTING AND LEARNING ONCE AGAIN: KNOWLEDGE CONSOLIDATION IN SERVICE ORGANIZATIONS

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ABSTRACT

How organizations create, transfer, and retain knowledge has been the focus of intensive investigation by management researchers for some time. However, one aspect of the dynamics of knowledge – forgetting – has received comparatively little attention. In this article, we discuss the role of forgetting in the dynamics of organizational knowledge. Based on an exploratory, multiple case study of learning in international strategic alliances, we explore the concept of organizational forgetting and relate it to knowledge transfer, knowledge creation and organizational memory. We argue that forgetting is the necessary counterpart of learning, and that attempts to manage knowledge must also include attempts to manage forgetting.

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The concept of organizational knowledge has generated a great deal of interest in organization and management theory over the last 20 years. Understanding how organizations produce knowledge and how knowledge is exchanged – that is, how organizations learn and use what they have learned– has become an important focus of attention as management researchers try to understand the role of knowledge in organizational competitiveness, and consequently, much of the work to date has focused on the creation and transfer of knowledge in an organizational context (e.g., Dodgson, 1993; Huber, 1991; Levitt and March 1988).

We believe that in spite of the growing interest on knowledge production and exchange, current research is only telling part of the story of knowledge in organizations. In this paper, we argue that the ongoing discussion of organizational learning needs to be complemented by a much clearer idea of how organizations “forget” or “unlearn”. In a vulgarization article, Peters (1994: 128) provides an example of some of the dangers of not considering forgetting along with learning:

The issue for Ford Motor Co., home of the original whiz kids, and others in the 1980s was forgetting – that is, unlearning the habits attached to a once-viable way of life. ... In 1938 the company tried to build a small car and failed miserably. “Small car” was translated by Ford’s engineers into “shrunk big car”. A stubby, expensive, over-engineered product emerged. Not only was Ford snared by yesterday’s routines (big-car design was the only variety the firm’s engineers knew), but it then overlearned from its 1938 error – that is, “We don’t know how to build small cars.”

Understanding organizational forgetting is critical for three reasons. First, simply being able to create¹ new knowledge in an organization, or transfer needed knowledge from another organization, is not enough. Instances in which new knowledge disappears before it has been successfully transferred to the organization’s memory have been documented (e.g., Day, 1994). Avoiding forgetting newly acquired knowledge is therefore a critical part of organizational learning. Second, organizations sometimes forget things that they need to remember. Despite being transferred to memory, organizational knowledge decays over time and critical pieces of organizational knowledge may eventually be forgotten (e.g., Darr, Argote, & Epple, 1995). Third, forgetting is sometimes an organizational necessity, such as when a new dominant logic needs to replace an old one (e.g., Bettis & Prahalad, 1996, Lyles, 1992). In this case, a failure to forget prevents new knowledge from being put into practice and reduces organizational effectiveness.

In focusing on forgetting as a complement to learning and knowledge production, we make three important contributions to the literature. First, we begin to answer the call from a number of academic (e.g., Bettis & Prahalad 1995; Hedberg, 1981; Nystrom & Starbuck, 1984) and popular sources (e.g., Peters, 1994) to include a consideration of forgetting in discussions of organizational learning and knowledge management. Second, in addition to raising the topic of forgetting, we begin to empirically explore how organizations forget. Using case study research, we discuss the processes that lead to organizational forgetting and its effects on organizational performance. Third, we

¹ Throughout this paper, we use the words creation and production as synonyms.

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broaden our model, linking organizational memory, learning, and forgetting. Existing models of the dynamics of organizational memory, knowledge creation, and knowledge transfer, generally ignore the role of forgetting.

We will present our argument in four steps. First, we discuss some of the existing work on organizational knowledge, learning, and memory and present the research questions that guided our study. Second, we describe the cases and the method of data collection and analysis that we used. Third, we present our findings focusing on the dynamics of forgetting and how forgetting fits into existing models of organizational learning. Fourth, we will conclude with some of the ramifications of a theory of forgetting for management research and practice.

Organizational Learning and Forgetting

The concept of organizational knowledge has proven to be a powerful tool in explaining the nature and behavior of firms (e.g., Kogut & Zander, 1996; Miles, Miles, Perrone, & Edvinsson, 1998; Nahapiet & Ghoshal, 1998; Nelson & Winter, 1982). Researchers argue that firms are (or can be thought of as) “repositories of knowledge” (Conner, 1991; Conner & Prahalad, 1996), which is embedded or materializes in assets, rules (Levitt and March, 1988), routines (Nelson and Winter 1982), standard operating procedures (Cyert & March, 1963) and dominant logics (Prahalad, 1993; Prahalad & Hamel, 1990). Furthermore, researchers have gone on to argue that producing new organizational knowledge is fundamental to sustained competitive advantage (Kogut & Zander, 1992; Prahalad & Hamel, 1990; Rumelt, Schendel, & Teece, 1994; Teece, Pisano, & Shuen, 1997).

It is not surprising, therefore, that the topic of organizational learning has received significant attention over the last decade (e.g. Crossan, Lane & White, 1999; Daft & Huber, 1987; Dodgson, 1993; Duncan & Weiss, 1979; Fiol & Lyles, 1985; Levitt & March, 1988; Miner & Mezias, 1996). It is also not surprising that the notion of learning has been used in a variety of ways. While reviewing the literature on organizational learning is beyond the scope of this work, one stream of research is particularly useful our study, for it pays close attention to the modifications in the knowledge base of an organization induced by its experiences, mistakes and problems it faces everyday (Huber 1991). Learning theorists such as Huber (1991) and Levitt and March (1998) understand knowledge as a collective set of assumptions about organizational actions and their consequences (Schulz, forthcoming), and learning as the process that allows organizations to produce knowledge from their experiences (Huber 1991). At a broad organizational level, learning involves the development and testing of knowledge, insights, and associations regarding causal relations, and ultimately the selection of courses of action that satisfy organizational objectives. Useful knowledge is therefore knowledge that provides organizations with the ability to reduce uncertainty, and obtain advantageous competitive positions. Following these insights, here we use *learning* to refer to the development of associations between actions and their consequences (Lyles, 1988: 302); learning, in our view, is developing new knowledge. Three main processes of organizational learning have been identified in the literature (Shultz, forthcoming): codification, exploration and exploitation. Organizations codify when they “encode inferences from experiences in organizational routines” (Shultz, forthcoming), explore

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when they search for new problems and their corresponding solutions, and exploit when they refine the solutions to existing problems, solving them in a better manner.

Yet, regardless of the method of production, it is often accepted that organizational knowledge is embedded in some sort of organizational memory that is does not disappear as individuals come and go². Rather than belonging to individual members, organizational knowledge is a distinct attribute of the organization as a social actor, distinguishable –and different- from the knowledge of the individuals (Ghoshal and Moran 1996; Nahaphiet and Ghoshal 1998; Nelson and Winter, 1982; Selznick, 1957). Levitt and March (1988), for example, claim that organizational learning is codifying experiences into rules that guide behavior; these rules, and the routines that they create are the “crystallization of (organizational) knowledge” (Nelson and Winter 1982) and its visible manifestation. Although it is clear that not all new rules or routines emerge from learning processes, nor is all learning automatically translated into new rules (Schulz, 1998) and/or routines, it remains clear that learning and storing are intrinsically related, and that storing systems are essential for the successful completion of learning processes.

Thus, organizational memory acts as the central organizational system involved in the storage of the results of the knowledge produced by processes of organizational learning. Current conceptualizations of organizational memory (Moorman, 1998; Stein, 1995) are principally based on Walsh and Ungson’s (1991) seminal work, which defined memory as stored information from an organization’s history that can be brought to bear on present decisions. Memory is composed of a series of decisional stimuli kept in various “storage bins” which have behavioral consequences when retrieved (Walsh & Ungson, 1991). In this paper, we will follow Olivera in defining organizational memory very broadly as “sets of knowledge retention devices (...) that collect, store and provide access to the organization’s experience” (Olivera, 2000:815). From our reading of the literature, we conclude that organizational learning produces organizational knowledge that is in turn stored in organizational memory. This raises an important question: how and under what circumstances do organizations forget? It does not seem safe to assume that storage devices have infinite capacity, nor that all the knowledge added to organizational memory stay there permanently. But why and how does it disappear?

Forgetting

Contrasting definitions of learning and memory aside, the focus of existing research on organizational knowledge tends to be on knowledge production and on knowledge exchange (Schulz, forthcoming), rather than on how, or under what circumstances, knowledge is lost or purposefully removed from memory. Processes of forgetting or “unlearning” have been mentioned (e.g., Day 1994, Nystrom & Starbuck 1984), but only in passing or as an aside. Anand et al, for example, present a clear example of forgetting, although the notion itself is not subsequently mentioned in their discussion:

Managers at the propulsion systems division of a major aerospace company selected an engineer to become the in-house expert in a new technology. In a wave of management changes, the champions of the technology all moved out of the division. The expert engineer was reassigned to normal duties. After another wave of change management, it

² Nevertheless, this is not uncontroversial. For an opposite view, see Simon, H. (1991). Bounded Rationality and Organizational Learning. *Organization Science*, 2, 125-134..

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became apparent that the technology was critical, but no one remembered that there was an expert on staff, and the process was repeated. (Anand, Manz, and Glick, 1998: 798)

Building on examples such as this, researchers have generally taken one of two approaches to forgetting. On the one hand, a number of writers point to the importance of “unlearning” to effective organizational learning, and the nefarious consequences of yielding to inertial forces (Miller, 1990; Miller, 1994; Miller & Friesen, 1984). It is argued that organizations must forget old habits in order to learn new and more appropriate ways of doing things. Anand and colleagues (1998), for example, state that there are circumstances (such as environmental turbulence) when “the existing memory may be an obstruction rather than an aid to information management. Disruption and recreation of portions of the organization’s memory may be required” (Anand, Manz, & Glick, 1998):806. Similarly, Crossan et al. argue that “the tension between assimilating new learning (feed forward) and using what has already been learned (feedback) arises because the institutionalized learning (what has already been learned) impedes the assimilation of new learning” (Crossan, Lane, & White, 1999: 533). Bettis & Prahalad (1995), along with others (e.g., Miller 1990, 1994) have argued that the failure to discard or “unlearn” old dominant logics is one of the main reasons why organizations find it so difficult to change, even if they see clear evidence of changes in their environment. Unlearning, in this case the ability to discard an old logic in order to provide room for a new one, is seen as an essential part of learning: “strategic learning and unlearning of the kind involved in the dominant logic are inextricably intertwined” (Bettis & Prahalad, 1985:10). Other researchers (Hedberg, 1981:3) have argued that an inability to unlearn can be a major organizational weakness: “Firms that can unlearn and reframe their past success programs to fit with changing environmental and situational conditions will have a greater likelihood of survival and adaptation” (Lyles, 1988: 87)

On the other hand, researchers have also argued that organizations may forget accidentally with serious negative consequences for competitiveness. Researchers have documented how an organization’s pool of knowledge may dissipate rapidly (Argote, Beckman, & Epple, 1990; Darr et al., 1995; Epple, Argote, & Devadas, 1991) due to processes of knowledge loss caused by faulty or inadequate memory systems. The general perspective in the literature is summarized in passing by Day: “Organizations without practical mechanisms to remember what has worked and why will have to repeat their failures and rediscover their success formulas over and over again.” (Day 1994:44). Avoiding forgetting how to do valuable things is therefore as important as learning new things in retaining competitiveness.

It is clear from the literature that forgetting is an important part of the dynamics of knowledge in organizations. In some contexts and at some times forgetting is a good thing for an organization; in other contexts and at other times the exact same loss of knowledge will be a very bad thing indeed. The dynamics of forgetting are therefore complicated and very important to knowledge management in firms. But, while it has been mentioned by a number of writers, it has not been systematically considered either theoretically or empirically. At the most fundamental level, the relationship between forgetting and the other dynamics of knowledge have not been explored. Our first research question grows out of this limitation in the current literature:

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Research Question 1: What is the relationship between knowledge, learning and forgetting?

Research question 1 provides the basic motivation for the case studies reported in this paper. Given the undeveloped nature of current discussions, our study is necessarily exploratory, focusing on coming to some understanding of the role of forgetting in the dynamics of knowledge in organizations. Simultaneously, we are also interested in how the process of forgetting occurs in organizations. This second question is complicated by the fact that some organizational forgetting is purposeful and positive while other instances of forgetting are not. This leads to research question 2 which is in two parts to reflect the two kinds of forgetting:

Research Question 2a: How do organizations forget purposively?

Research Question 2b: What leads organizations to forget accidentally?

Combined these two research questions provide the motivation and frame for this study. Our exploratory case study provides a basis for beginning to outline answers to these two questions; answers that form the foundation of a theory of organizational forgetting.

Methodology

The field research presented in this paper was carried out in Cuba between 1995 and 1999 in collaboration with the Universidad de la Habana. The research, aimed at studying knowledge creation and exchange in international strategic alliances, focused on six hotels operated by a major Cuban hotel chain and two of its international partners. The Cuban hotel chain is owned by a large, vertically integrated conglomerate, operating principally but not exclusively in the tourism industry; its two foreign partners are large Western companies, well known for their extensive links to the hotel industry. One of them, Alpha, focuses almost exclusively on the management of hotels owned by third parties while the second company, Beta, develops, builds and manages hotels that it may or may not own. The first five hotels are associated to one alliance or the other, while the sixth is fully owned and operated by the Cuban conglomerate (see Table 1). The sixth hotel was included as a baseline case. The hotels studied are independently managed and operate as business units with autonomous management evaluated by the parent organization mainly on financial results and overall quality. All of the hotels we studied were either newly constructed or had been reopened after several years of remodeling and revamping, which had the effect of creating a consistent low level of organizational memory and performance at the beginning of the study. It was therefore an ideal place to study the processes of knowledge mobilization, organizational learning and organizational forgetting.

The tourism industry in Cuba provides the opportunity to observe a kind of natural experiment in knowledge management (Martin de Holan & Phillips, 1997). In the Cuban tourism industry, there are several similar strategic alliances that differ only in terms of the international partner. The industry is composed of about ten strategic alliances that include roughly 40 international hotels. Thanks to this centralized structure, several strategic alliances have appeared where the domestic partner, the age of the

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alliance, its legal structure, its nature and objectives, and often the geographic locations are held constant while the international partner varies.

Research Method

Given our interest in theory development, we chose a multiple case study research design. We began by writing a detailed case study of each of the organizations observed; the cases were updated each time we visited the organizations. We gathered data mainly through semi-structured interviews of all management personnel, front-line employees and some customers in each of the business units conducted during multi-day visits to each of the hotels. The interviews began with the general manager and other senior international people and then moved on to lower level managers of the functional divisions, to end with customers and front line employees. In total, 78 interviews were conducted, with an average duration of about 90 minutes.

Material from the interviews was supplemented by a range of additional interviews of relevant individuals within the parent companies and in the Cuban government. Interviews were conducted in English, French and Spanish depending on what was most comfortable for the interviewee. Front line employees were interviewed by Cuban researchers, while the managers were interviewed by the authors. To facilitate the analysis and to preserve data integrity, permission to record was requested and granted in all but two cases; in these latter interviews, extensive notes were taken. Later, all interviews were transcribed and analyzed in their original language. Quotes used in this paper were translated at the time the paper was written. Finally, the interview data was triangulated with other documents (e.g., financial statements, training manuals, letters and internal memos) both to verify the information provided in the interviews and to understand the financial performance of the hotels.

Once transcribed, the data was analyzed using NUD*IST qualitative data analysis software. The process of data analysis involved several phases (Miles, 1979; Miles & Huberman, 1984). Each interview was carefully read and codes were attached to sections of the interview. These codes were grouped by organization, allowing patterns to emerge. After coding all the interviews once, data was categorized, and interviews were re-read and re-coded. Based on this initial coding, a basic model was derived from the data. The data was then coded in a more detailed fashion using the model as a reference. Based on this recoding, the model was modified and refined based on the detailed coding process. Moving back and forth between the data, the emerging model, and the literature allowed us to develop an initial model of organizational forgetting (Glaser & Strauss, 1967; Strauss & Corbin, 1990)

As the objective of the study was to identify organizational knowledge and, later, organizational forgetting (as opposed to individual knowledge, learning or forgetting in an organizational context), we focused our attention on collective knowledge. The proxy for organizational knowledge was its utilization in purposeful collective actions that seek to create a collective good (Douglas, 1986); that is, the collective ability to perform an activity that is too complex to carry out by a single individual. Therefore, we observed and documented the actions enabled by the existence of a particular piece of knowledge. Although organizations may not use all the knowledge they possess, the longitudinal nature of the study allowed us to observe the evolution of organizational knowledge over a long period of time, and trace the creation and transfer of knowledge from the very

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early stages when problems and issues began to be formulated to the later stages when solutions were implemented and new problems appeared.

Discussion and Results

The need to transfer knowledge from the partners to the joint ventures was the primary rationale behind the strategic alliances we studied and the explicit justification of the partnership. Using the classification of Koza and Lewin, these were learning alliances (Koza & Lewin, 2000; March, 1991). Their explicit objective was to reduce the ignorance of both partners about a particular situation by exploring, that is, by creating new knowledge based on the existing knowledge base of each partner but adequate to the novel situation of the business unit. As both partners firmly believed that only the combination of their expertise could provide the basis for rapid learning, the roles assigned to each one were distinct: the international partner was in charge of providing the (much needed) expertise necessary to develop a world-class hotel offering in Cuba and attract international tourists; the role of the Cuban partner was to provide qualified labor, managerial systems and knowledge about the peculiarities of doing business in a Communist country.

While learning was the primary motivation of the alliances, forgetting rapidly appeared as an important activity that needed to be addressed by managers. Two interrelated dimensions of learning emerged, complemented by equal but opposite dimensions of forgetting. The first dimension of learning and forgetting is linked to the preexisting knowledge of individuals, who come to the organization with “cosmogonies” (Weick, 1994) that are deeply ingrained in individuals, and guide their behavior in the organization. For example

(The Cuban employees) are used to working in a certain way. Their attitude is... very difficult to change, they do it always the same way. So you show them something and you say: do it this way because it is much better, and you show them. If you do not follow up every day to see what they do, in a week they are back to the system they are used to, a system where things are easy. So, you have to follow up on their work, (...)

Q – Do you have any examples of this?

They, they.... it is small things, maybe the front desk, just taking messages, or answering the phone, making sure the guest receives the call. These are small things they do in a certain way, and sometimes they just forget, they go back to their system. (Housekeeping Manager, Withwind Hotel³, French Canadian)

The second dimension of learning and forgetting is organizational, and involves the presence and renewal of dominant logics (Bettis & Prahalad, 1995; Lyles, 1992; Prahalad & Bettis, 1986), which translate in systems of procedures that could become rigid and impede learning, or were simply inadequate to the situation. For example,

At the beginning my work was too schematic, managers said that everything had to be done according to the manual, and I had an idea to improve the way we did the bed, to give better service, we found a better way with one of the maids. Well, we couldn't implement it because everything was so schematic, everything was done by the book (Housekeeping manager, female, Cuban, Montelimar)

In that sense, forgetting preexisting knowledge appeared as a necessary first step to *initiate* learning processes. Whereas it was assumed that an organization initiating operations *tabula rasa* needed only to start accumulating knowledge, forgetting

³ Names have been changed.

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knowledge that preexisted the organization became an important task. Newness, we believed, would reduce the need for forgetting as the systems, routines and beliefs in place could not have been institutionalized in a short time, leading us to hypothesize that forgetting would not be prevalent for the early stages of operation. These working hypotheses were rapidly disconfirmed. It appeared that although the business units did not have established procedures and routines, the individuals in charge had clear views about how it was to operate and what activities were needed, and the partners in the alliance had entrenched procedures and routines and ideas about how things ought to be done and why. For example,

(I came here) to train and to run the room side of the hotel as I would do it at home , as close as possible, to follow Alpha's policies and procedures, to implement Alpha's privileges here and finally, to implement Alpha's signature services on the fifth floor. (..) I came to implement these basic programs that would be common at home, from a managerial perspective I came to implement things such as employee empowerment which is a quite foreign concept here. (Special Project manager, female, Canadian, Alpha Corporation)

and also

(CorpCo's) manual says a four-star hotel must serve four juices in four different jars every morning. That may be OK in Canada, where the only thing you have to do is open the darn container and pour the liquid in the jar, but here we just don't have four kinds of juice, and if we do, it is too expensive. So we offer four juices, but one of them is orange, the other carrot, and the third orange-carrot, and the fourth, tropical punch, which is orange, carrot and I dunno, banana or whatever we have that day. But we make sure we have juices with and without sugar, so people who are watching their weight can drink the sugarless one. So what do you know? We have now six juices instead of four, but the basic flavors are the same. (F&B manager, male, Cuban, Hotel Caribbean)

Forgetting at the individual and organizational level appeared as a quite important activity, even more so as the environment of the firm and the nature of the service provided was different from what the partners expected. Everything happened as if learning and forgetting could not be practically dissociated; forgetting, even when there seemed to be no preexisting organizational knowledge in the business unit, appeared as a necessary first step to start learning processes in the organizations. Therefore, we propose the following:

Proposition 1: *Forgetting is a primary component of organizational learning*

Proposition 2: *Processes of forgetting are integral parts of the memory systems of organizations.*

Our goal then was to distinguish among different types of forgetting, and to identify the context in which they appeared. Three main dimensions emerged from the analysis of our case studies. The first dimension of forgetting involved the incapacity by the organization to retain a piece of knowledge that had been previously available to it. The second dimension deals with knowledge that has been stored in memory, but that degrades over time, causing the quality of the performance enabled by that knowledge to diminish. Our final dimension involves purging knowledge from memory. We discuss each of them in detail below.

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The inability to retain knowledge.

This dimension involves the inability to maintain a piece of knowledge that has been previously available to the organization. That is, knowledge that entered the organization but was not being retained by it; something is known or done for the first time, but becomes impossible in subsequent iterations. Here, knowledge dissipates rapidly, disappearing from the organization almost immediately after the particular piece of knowledge has entered it. (“If you do not follow-up, it is back to step 1”, “you go on vacation, and when you are back, the standards are gone”, “When you look in another direction, your buffet table is all messed up, there is only one sauce where there should be two, and there is no more grated cheese, a real mess.”).

The flows of knowledge in the organizations studied had two loci. External knowledge was made available to the organizations through transfer; internal knowledge was produced by the organization. Successful instances of knowledge transfer and production were observed in the organizations; yet, we also observed that in several of these instances, knowledge would not remain available to the organization. Although initially we hypothesized that these were examples of failure to transfer or to create knowledge, we later realized that the organization had been able to use that knowledge, but only for short periods of time.

In Hotel Belltolls, a gala event for the elite of the country and the diplomatic corps was organized with great success: the general impression was that the quality of the premises, of the food and of the service was impeccable. Yet, a few weeks later, a much more modest gathering failed, as the quality of the food and of service was mediocre. Subsequent failures moved the organization to cancel its plans to introduce receptions (weddings, galas, ...) to the product catalogue, depriving it of a profitable source of income. Says a manager

“(…) I think it's easy to get to a high standard; it's not difficult. I can go to another hotel and we can have the best meal tomorrow there, without a problem, the best service for one day. But to keep it, to keep the standard is very difficult.” (Food and Beverage Manager, male, Dutch, Withwind Hotel).

And also

“(…) That is follow-up, and that can be annoying, it can give you a headache because the sauce that was supposed to be there since the beginning isn't there, and I know that it is supposed to be there and it was there since the beginning. It is the sauce, it is a saucer, and a little dish on top with a little spoon and a big spoon. Well, they are details, but that is the work we do. (...) If not, they will change the pasta or they will put something that does not taste the same, and we need it to always be the same. (General Manager, French, male, Withwind Hotel)

This finding leads us to propose that:

Proposition 3: *The rate of knowledge dissipation varies in relation with the degree of effort put by the organization to transfer knowledge into memory systems*

Proposition 3a: *High efforts to transfer to memory correspond to lower rates of knowledge dissipation, and vice-versa.*

Our findings, and the proposition that follows, formalize Day's idea: “once knowledge has been captured (...) it won't necessarily be retained or accessible. Retention requires that the insights, policies, procedures and on-going routines that

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demonstrate the lessons are regularly used and refreshed to keep up-to-date” (Day, 1994):23.

The deterioration of stored knowledge

We have proposed that storage of knowledge is an activity needed to avoid rapid dissipation, and that failure to store accelerates decay rates. Complementing the first dimension, we focus here on the degradation of knowledge after it has entered the organizational memory system.

We observed several instances of knowledge degradation, where the quality of the outputs diminished over time after having reached a level that was deemed satisfactory. In these situations, knowledge behaved quite differently from the predictions made under learning curve theories⁴. Here, instead, knowledge (and the consequences of knowledge, what the organization does with it) behaves according to theory, but after having reached a plateau, quality of outputs decreases as the organization forgets how to optimally perform the set of activities that led to the output in question. Says a manager

“We calculate the daily cost of food and beverages. As soon as a new manager starts, he starts well, and then there is a phase where you have to watch that closely, in the kitchen the cost depends on how closely you watch everything, that is fundamental, you have to see what goes out, what comes in, and you have to monitor that very closely, as soon as he stops checking that, his performance (cost of food in relation to quality) goes down. We have seen that with our Cuban chefs, we hire one of them and in two weeks the cost of food is sky-high, and only then it stabilizes, we haven’t been lucky with them.” (Resident manager, Key Hotel, Cuban).

To observe more directly the consequences of this dimension of forgetting, we analyzed the behavior of the cost of food per guest⁵ at Montelimar Hotel. This simple indicator contains information about the behavior of a large number of functions within the organization (procurement, kitchen, table service,...), and how well (or how poorly) these functions interact with each other. As shown graphically, the indicators show an erratic behavior incompatible with traditional explanations of economies of scale or learning curves. Figure 1 shows five months of declining cost, followed by four months of stability, five months of rapid decline, and seven months of highly erratic behavior. As indicated on Figure 2, increasing numbers of tourist/days in a given month are not associated with decreases in cost (i.e., 12000 tourist days yield a cost per tourist of 11US/day and 8.00US/day). Figure 3 shows that increasing cumulative number of tourist days only lead to decreasing costs for 13 months, but are following by an escalation of costs for the next eight.

Insert Figure 1, Figure 2 and Figure 3 about here

⁴ Learning curves propose that the marginal cost of an additional unit of output will diminish as the cumulative volume increases, up to the point where no more learning occurs regardless of additional units produced.

⁵ As this is an “all-inclusive resort,” where tourist prepay their package and are free to drink and eat as much as they want, the cost of food per day is a crucial determinant of operational results.

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While some researchers have already presented findings about depreciation of organizational knowledge (Darr et al., 1995; Argote et al., 1990), it is still common to conceptualize learning as linear, cumulative processes that do not allow for deterioration. Yet, based on our empirical evidence, we propose that

Proposition 4: High rates of knowledge maintenance activities correlate with low rates of forgetting, and vice-versa.

Forgetting as knowledge management.

So far, we have presented the undesirable side of forgetting. In both cases, forgetting deprives the organization of a needed resource. However, the third dimension of forgetting identified in our cases involves voluntary forgetting, that is, forgetting that is actively desired by the organization, although not always achieved. For example

“the Canadian (managers of the hotel) act as if this were some suburb of Montreal, they still have to understand that we are in Cuba and that certain things cannot be done their way. They want us to use their system, and that system does not work here, we need new ways of doing things that take into account the specificities of the country” (Resident Manager, Montelimar Hotel, Cuban).

and

“(the Cuban employee’s behavior) is normal, they treat customers just like they are treated when they are customers themselves, except that our customers are foreigners and have much higher expectations, here is service a la Cuban, and that does not work” (Front Desk Manager, Belltolls Hotel, Canadian)

In these situations, forgetting was needed primarily as a way to make room for new knowledge, discarding knowledge that had been once functional to the organization but was now seen as a hindrance. Says a manager

(At first) we imported the structure of Superb Hotel, and very quickly we realized that it did not work well here, perhaps it was because there were no foreigners among us, or maybe because our managers were not prepared for it. And we saw contradictions appearing at all levels, and our operating procedures were not implemented, and the same hierarchical level that decided on their implementation had to check to make sure they were actually applied. Then we decided to change the structure, to work differently so we would not drown in meetings that did not get the problems solved. (General Manager, male, Cuban, Caribbean hotel, Non Joint Venture)

Accordingly, we propose that

Proposition 5a: Processes of knowledge mobilization (creation or transfer) require less effort when they are preceded by processes of forgetting.

And also

Proposition 5b: Processes of knowledge mobilization will have a lower impact on performance unless preceded by processes of forgetting.

Yet, the need for organizational forgetting can be related to the strength of the memory systems of the organization. The foreign partner, with its experience in many countries and its well-honed operations, had more to forget than the Cuban company, which had only recently ventured in the industry. This leads us to propose that

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Proposition 6a: *Strong organizational memory systems will require high levels of forgetting before organizational learning takes place, and weak memory systems will require low levels of forgetting.*

Proposition 6b: *Greater unfamiliarity with environmental conditions will require greater levels of forgetting, and vice-versa.*

We propose here that the quality of the memory system that holds the knowledge influences the degree of effort needed to forget. In addition to it, the type of knowledge that is to be forgotten influences the amount of effort that will be needed to forget it.

Says a manager

(she) came and gave us her advice, she has a lot of experience as housekeeping manager, and she gave us a procedure to make the rooms very different from the one that we had before, and the room ends up being just the same. Now we do the work much quicker and it has the same level of quality. (...) [Alpha's procedures] make our work much quicker, and the customer is happier that way, when he goes to bed there is no inconvenience while undoing the bed, when he goes to bed the pillow stays put; with CorpCo it flies off. (Housekeeping manager, Female, Cuban, Montelimar Hotel)

and also

I asked them (the employees) why on earth do you think that we are here? Why do you think the government has built this hotel? And for them, if this hotel is here is for customers and tourists to come, they didn't even mention that our objective was to be productive, to be profitable and to make money, that was a tough one. (Marketing manager, female, Mexican, Nut Hotel)

It is common to distinguish between types of knowledge by the degree of abstraction or concreteness, or, in Nonaka's conceptualization, between tacit and explicit knowledge. (Nonaka, 1991; Nonaka, 1994; Nonaka & Takeuchi, 1995). Accordingly, we hypothesize that

Proposition 7a: *Tacit organizational knowledge requires higher levels of effort to be retained than explicit knowledge.*

And, conversely,

Proposition 7b: *Tacit organizational knowledge requires higher levels of effort to be forgotten.*

These propositions summarize the main findings of our study and highlight the close linkages between processes of learning and forgetting. Being exploratory in nature, the study should provide guidance for further research aimed at operationalizing and measuring these concepts in other organizational settings.

Conclusions: To Forget is Sublime

“You can't live without an eraser” – Gregory Bateson

The idea of organizational knowledge has proven very fruitful in organization and management studies, and has led researchers to understand much more about the source of organizational capabilities and competitiveness. But, while researchers are beginning to gain a better understanding of how knowledge is created and transferred, there are still important dynamics of knowledge that remain unexplored. In this paper, we have begun to discuss one of these dynamics, forgetting, and its role in knowledge processes in

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organizations. We have argued that forgetting is a critical aspect of knowledge processes in organizations. Based on our research, and a number of examples and discussions drawn from the literature, it is clear that forgetting is as important for organizational success as knowledge creation or transfer. The organizations we studied spent considerable time either trying to forget something that was no longer (or never had been) functional or trying not to forget things that were highly valued but in danger of being lost. Managing forgetting was a major management activity in our study and consumed a considerable amount of time and effort, comparable to the effort and time allocated to other more traditional components of knowledge, such as creation and transfer.

Our study also highlighted the contextual nature of forgetting: while forgetting was a constant in our organizations, the effect of forgetting is context-dependent. If critical knowledge was forgotten, then competitiveness was lost and forgetting would have been better avoided. But, if the forgotten knowledge was extraneous or was actively interfering with the application of more appropriate knowledge, then forgetting was a positive occurrence. In some cases, managing to avoid organizational forgetting is critical; in others, managing to maximize the loss of organizational knowledge is equally adaptive. In other words, while learning is critical for organizational success, forgetting plays an equally important role.

The ramifications of our study for research are clear. Management researchers must begin to pay more attention to forgetting if they wish to understand the dynamics of knowledge in organizations. How organizations can forget the things they want to forget, and avoid forgetting the things they don't want to forget, is an important question for management researchers. Our study has begun to reveal some of these dynamics but much further empirical study will be required to come to some understanding of the dynamics of forgetting.

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Table 1: Main characteristics of sites.

Management/ Ownership	Business Unit	Type of hotel	Type of alliance	degree of success	Opened in	visits/interviews/Period followed
Strategic Alliance 1 Alpha – Corpco	Belltolls Hotel	City hotel	Non-equity	Medium	Dec 93/ Revamped (major renovations)	16 interview /6 visits /1 year
	Montelimar Hotel	resort	Non-equity	Low	Dec 93 / inauguration	17interviews /2 visit /6 months
	Withwind Hotel	resort	Non-equity	High	Jun 94 / inauguration	17 interviews /2 visits /18 months
Strategic Alliance 2 Voyage – Corpco	Key Hotel	resort	Non-equity	Medium	Jan 94 / inauguration	14 interviews / 2 visits / 10 months
	Nut hotel	resort	Equity	High	Jan 95 / inauguration	
Cuban Owned and operated	Caribbean Hotel	resort	No alliance	Medium		12 interviews / 1 visit / 6 months
	Belltolls Hotel	City hotel	No alliance	Medium	Jan 96, end of contract, no renovations	2 interviews / 1 visit.
					Total	78 interviews, 15 formal visits

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Figure 1 Cost of food per tourist per day. Hotel Montelimar

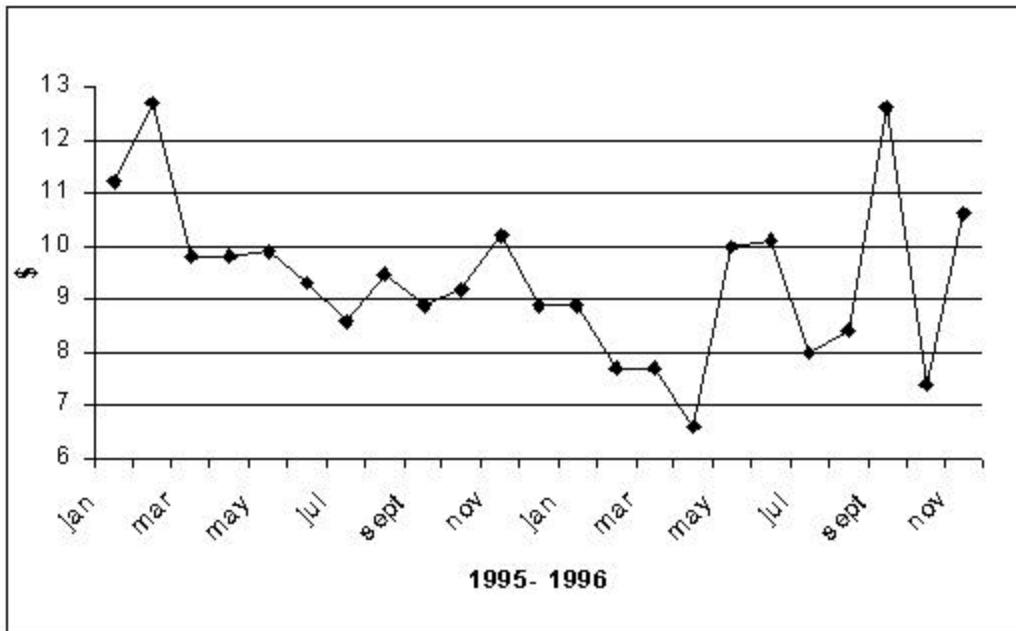
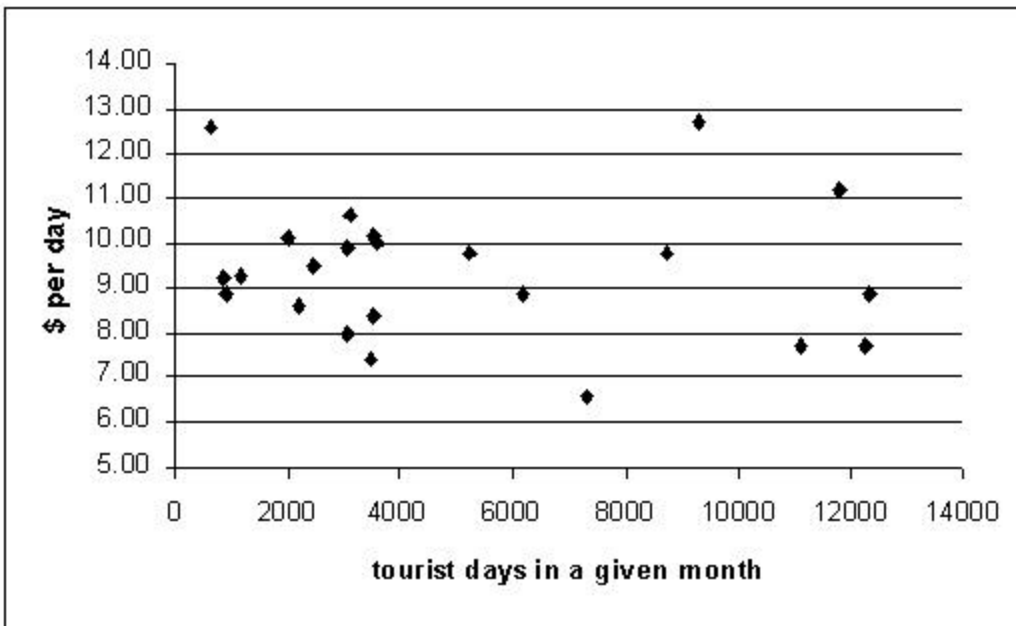
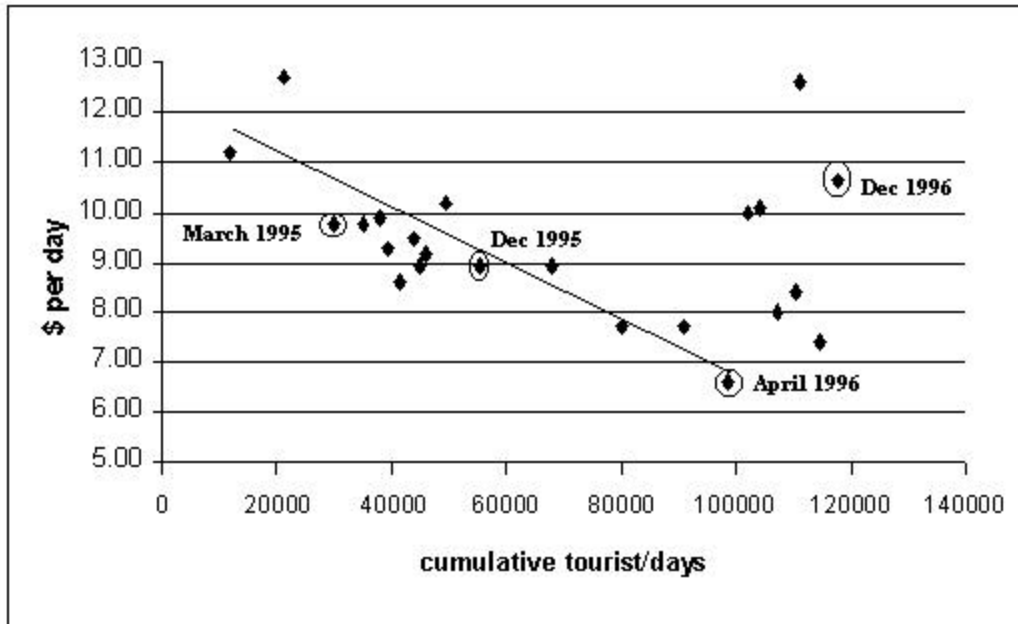


Figure 2 Correlation between Cost of food per day and number of tourist/days in a given month. Hotel Montelimar 1995-1996



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Figure 3 Accumulated tourist days. Hotel Montelimar



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