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# Overcoming the Limits to Growth of Imaginary Organizations: Balancing Knowledge and Trust

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Trust has become a main concern for scholars interested in the development and the survival of virtual organizations. The assumption is that distance, lack of familiarity, lack of face-to-face communication produce extreme fragility in organizations that are only linked by agreements and information technologies. This paper investigates the act of "organizing" as an interactive process between trusting and knowing tacitly. Propositions are derived from a research on managers dealing with ambiguous settings (Baumard, 1998). The main findings of this previous research were that managers tend to rely on various bodies of tacit knowledge – acquired through socialization – when repertories of codified knowledge were unable to provide appropriate exits to very disconcerting situations. Yet, this research did not consider this problem solving as an act of organizing. This flaw was unnoticed until I paid a visit to the studied organizations, and discovered that these emergent patterns of dealing with ambiguities had become an organizing principle in the studied small knowledge refineries.

The forgotten premises deal with the true nature of knowledge. In the previous research, knowledge was considered as a somewhat independent body from the organization. Findings were corroborating this assumption. One of them was that tacit knowledge had an autonomous development, independent from the people who were embodying it, or the organization that was encapsulating its roots. In one specific case, the small publisher named Indigo, managers were lying in wait until implicit chunks of knowledge would assembly to each of other to create a pertinent analysis of reality. It did not come to my mind that such a behavior was the main organizing principle of this organization, until I worked out that there was not much more in this small company. Hence, this paper proposes to re-investigate tacit knowledge under the angle of organizing large networked organizations.

#### **Knowledge and Trust in Networked Organizations**

In networked organizations, knowledge serves as the caveat of shared meanings, purposes and goals of allied units (Hedberg at al., 1994). If this networked organization belongs to a single industry, then it can be assumed that traditional processes to generate this knowledge are in use. For example, Spender (1989) showed that industries rely on shared "recipes" that are disseminates through socialization to build a communal body of knowledge. However, "imaginary organizations" (Hedberg et al., 1994) are not purposeful designs that emerged from a single industry, but more often organizational designs that have been conceived to extend market reach, or to create new avenues to develop product innovations. For example, Skandia AFS (Hedberg et al., 1997) developed an imaginary organization to penetrate world markets where the firms did not have sufficient distribution networks. The use of extensive networking and alliance allows the firm to extend its market cover, without an intensive investment in onerous market infrastructures. Hence, the new partners in an imaginary

organization can rarely rely on shared practices or "recipes" to build a communal knowledge. They need, however, to develop mutual trust on certain degree of mutual knowledge. Therefore, they develop "knowledge-based trust" (Sherman & Tuchinsky, 1996, p. 144) in order to develop mutual predictability, and therefore to improve mutual understanding and control during the development of the networked organization.

Yet, "mutual knowledge" in this configuration is merely a crisscrossed belief that the partner is reliable. It does not need a deep understanding or a "thick understanding" of the partner. Indeed, part of the knowledge that is needed for coordination is unreachable and impossible to represent. As Schelling (1986) suggests, coordination relies on a form of knowledge that is prominently tacit. Moreover, in networked organizations, knowledge is highly dependent upon a shared purpose. Partners engage in the alliance because they strongly trust the market competence of other parties. If trust were mutually given on another basis than professional skills and market experience, partners would be pushed in a perpetual mutual prisoner's dilemma. Trust, indeed, is a double-edged commitment: its nature provides the opportunity for trustee malfeasance (Granovetter, 1985). That is, "under higher levels of trust, there is more opportunity for individuals to exploit each other because the level of suspicion and vigilance in the relationship is reduced. Hence, some individuals will choose to take advantage of low levels of vigilance (e.g., by loafing, by embezzling, by cheating) while others will not" (Dirks & Ferrin, 1998). This might explain why scholars of trust and interoroganizational agreements disparately seek for subcategories of trust that may describe faithfully the kind of commitments they support. Because trust is nothing else than preconceived and preconscious expectation (Zucker, 1986), partners that engage in the building of an imaginary organization seek for objectified knowledge on which they can build their commitment. Hence, they have more familiarity with forthcoming-shared competencies than with partners' emotions, beliefs and cognition.

Traditional research on trust, however, tends to put interactions among familiar actors as the basis of the durability of relations (Bigley & Pearce, 1998). The traditional view is that the process of trusting is progressive from calculative trust relational trust (Rousseau et al. 1998: 401); i.e. the more people become mutually familiar with their sets of preferences, beliefs and behaviors, the more they substitute a calculated faith with "blind faith". In this perspective, the more trust is developed between partners, the less they need to question independent choices, strategies and directions. They do not need to re-negotiate their mutual commitment, and therefore avoid heavy transaction costs (Gulati, 1995). In a recent work, Das and Teng (1998:495) see this process as a substitute for control mechanisms in alliances and interfirm cooperation. They see the dialectics of trust and control as the lever of success in strategic alliances. The quality of control, in this perspective, is derived from the visibility of "each others' motivations and the completeness and honesty of their arguments" (Van Wijk & Van Den Bosch, 1998). Hence, if partners of a networked organization trust each other, they will be less likely to "misinterpret" task conflict behaviors by inferring hidden agendas behind the newly formed alliance (Mishra, 1996). It is indeed widely agreed that trust is central to cooperation and development of interorganizational networks: "Lack of trust, or the expectation that others will take advantage of exchange relationships, raise perceptions of the risks and transactional costs involved" (Williams, 1998). Trust free managers from suspicions of asymmetry in the knowledge exchange relationship. They are more likely to disclose their purpose and intents, because they do not fear that the disclosed knowledge will be used against them (Alter and Hage, 1993, Gulati, 1995).

Yet, the process of collectively generating knowledge is very often absent from research on trust and interfirm organization. Knowledge is commonly viewed as formal or informal exchanges of information between partners (Gulati, 1995). In real life, knowledge generation

is a balance between dependent and autonomous processes, outputs, and inputs. Part of the process is the result of incentives. For example, Skandia AFS has developed a CD-ROM to help product managers to represent to organizational knowledge creation process (Hedberg et al, 1997). The other part of the process is left with interpersonal socialization and acclimatization. People adopt the technology, and invent their own repertories to put the device into practice. Hence, the true individual knowledge of managers swiftly becomes unreachable for the networked organization. Such organizations have to rely on the ability to assimilate and articulate the desired representations in their own words. No one in the organization is able to describe his or her state of knowledge, yet, imaginary organizations are able to manufacture and sell a very consistent body of knowledge (e.g. financial expertise) throughout the world. As they cannot directly supervise the production of local knowledge, network organizations must rely on "performative" trust, that is to say on the belief that task will be performed as agreed. Hence, "trust is not confined to each party agreeing to perform its known obligations, as in contracts, but extends to the unknown as well" (Williams, 1998). Therefore, before any affective or interpersonal trust develops between partners, there is willingness to accept an important level of risk on the abilities of the partner to resolve unknown and forthcoming challenges, as they may emerge (Ring and Van de Ven, 1992).

Proposition 1: The limits to growth of imaginary organization lies in the possibility to reach individual knowledge and to articulate them with its global infrastructure. If disarticulated, institutional and interpersonal trust can seriously impede the growth of an imaginary organization.

### **Does Knowledge Really Matter?**

To assimilate information and knowledge in order to explain familiarity and knowledge-based trust may therefore be very misleading. When they engage in the creation of a network organization, partners rarely have in depth knowledge about each other. During the partnership, twice the same information does not systematically produce identical knowledge, even if processed by the same individual. Whereas people individually know more than they can express (Polanyi, 1967), imaginary organizations also hold more knowledge than their information technologies circulate. Overlapping devices or organizational redundancies are usually proposed to explain the maintenance of tacit knowledge in large organizations (Nonaka, 1994). Yet, imaginary organizations are designed so to reduce such redundancies because their focus is on transaction costs reductions and low resources consumption. Two possibilities can therefore be investigated: either knowledge generation is very diversified in imaginary organizations (and there is only a communality in the banner-brand), or, on the contrary, the communality in knowledge generation explains the success and the growth of imaginary organizations. Because they develop knowledge generation processes mutually, partners of imaginary organizations take advantage from this communal heuristic. The sharing of the cognitive devices creation bring to partners the belief that they will act in their mutual interest (Uzzi, 1997).

Imaginary organizations have such a short history that it is quite impossible today to determine the long-term value of their potential specific knowledge generation in their survival. Furthermore, present experiences of imaginary organization focus on new ways to managing existing products to extend their market reach at low cost. Hence, a large existing body of knowledge precedes the creation of these networked organizations. The new organizational form is solely a process of mining and reorganizing existing knowledge into new interfaces and channels. Most imaginary organizations highly depend upon their assets specificity when they develop new processes and organizational rules. Very few imaginary organizations have started from scratch to create a whole new body of knowledge, even if procedural and processual innovation is consequent. Therefore, imaginary organizations could

be bitterly seen as merely "coordination strategies" with an intensive use of information technologies In this case, the purpose is to manage "market and hierarchy relationships simultaneously" (Holland & Lockett, 1997, p. 485); and knowledge generation only becomes a dependent variable of the mixed mode network structure.

Proposition 2: The limits to growth of imaginary organizations lie in the diversity of their original knowledge base and their ability to renew this knowledge base as they develop over time.

## **Knowing as the Organizing Principle**

However, the story of Skandia AFS (Hedberg et al., 1994) clearly shows that the organization is pursuing superior knowledge as a source of competitive advantage, not solely superior market information. Most their competitors are indeed using similar market information and the use of market databases is intensive in the financial services industry. There is therefore a shift in knowledge generation focus in such an imaginary organization, from knowledge seen as a circulating commodity to the improvement of knowing as a core organizational capability. However, intellectual capital comprises both tacit and explicit dimensions of knowledge (Nahapiet and Goshal, 1998). It is a result of both combination of codified expertise (i.e. embodied into products) and uncodified know-how (i.e. embodied into managerial skills). The homogeneity of shared codified knowledge is more or less easily addressed by imaginary organizations through shared coded practices, information infrastructure, behavior normalization and advanced cognitive tools such as Skandia CD-ROMs. Yet, to achieve a high level of knowledge in complex industries requires face-to-face collaboration and teamwork as Zucker, Darby, Brewer and Peng recently showed in their study of the biotechnology industry (1996). They discover that "collaboration across organizational boundaries is negatively related to the value of intellectual capital (...)" (1996: 108). Hence, the generation of intellectual capital across interorganizational boundaries necessitates both a standardization of codified knowledge generation, and an extreme adaptation of interpersonal knowledge creation. Nahapiet and Goshal (1998) have elegantly summarized this paradox in an integrative framework. They see the creation of intellectual capital as derived from the combination and exchange of knowledge embedded into the social capital characteristics of the firm. However, they separate the structural dimension (network ties, network configuration, appropriable organization) from both the cognitive dimension (shared codes and language, shared narratives) and the relational dimension (trust, norms, obligations, identification). In this perspective, knowledge is assumed to be a separate organizational body, meanwhile, in real life it is quite difficult to extract knowledge from the interactions where it is embedded.

Hence, we believe that Nahapiet and Goshal (1998) are victims of the same bias than we themselves flawed to perceive in previous works (Baumard, 1996). Imaginary organizations choose to shift to a networked form because they are unsatisfied with traditional structures when they have to deal with knowledge-intensive activities. These organizations seek new ways to deal with large and dispersed bodies of knowledge with restrictive resources. While traditional organizational forms reduce knowledge to codified repertories, imaginary organizations try to keep their knowledge flexible as to increase market reactivity. They induce new knowledge from their markets, and therefore they need to keep sufficient equivocality in their organizational settings to be able to assimilate new *knowing opportunities*. However, they are not solely learning organizations, as their purpose remains profitability and shareholder value.

Traditional organizational forms (multidivisional, matrix, hierarchical, geographical, etc) reduce ambiguities as to project a consistent apparatus to the exterior, and to strengthen coordination inside. Hence, they tend to make knowledge univocal and as fit as possible with their organizational culture. When eventually two organizations merge into a new one, the tacit repertories of each organization remain, leading the new ensemble to ill-coordinated knowledge generation and ambiguous situations (Baumard, 1998). They eventually become trapped into dysfunctional knowledge, and do "more of the same thing" (Watzlawick et al. 1975) to try to get rid of ambiguities: more structures, more rules, and more institution.

When we studied tacit knowledge in ambiguous settings, firms did not make spontaneous recourse to tacit knowledge. Their first reaction to a disconcerting situation was to try to make it clearer, to rationalize it, to 'put what we are sure of down on paper'. In these organizations, and particularly in the larger ones, managers often tended to neglect conjectural and local knowledge when trying to escape ambiguity - the observed managers tended instead to uselessly multiply measures and procedures. (Baumard, 1998). In these organizations, the ambiguity came from the gap between the explicit framework adopted (or which management wanted to see adopted) and the tacit reality of the organization: which may be interpreted as a collision of the tacit and the explicit.

In fact, the collision of the tacit and the explicit came from the attempt to integrate an organization whose repertories of knowledge were tacit and individual, in an organization that privileged formalized collective knowledge. It was finally the host organization, which modified its knowledge repertories, and adopted the organizational settings that were required: a thawing of its knowledge and of its organizational structure. These organizations faced tremendous crisis because they tried to force new forms of *knowing* into dusty forms of organizing. One of the striking cases was Indosuez, a very respected French institution, trying to integrate a fairly new body of knowledge – i.e. structured finance – into its operations. Instead of adapting its structures to this new form of practicing finance, the firm first tried to isolate the new expertise in a separate structure, and then forced the socialization of the absorbed managers into its rules and processes. On the contrary, imaginary organizations derived their processes and articulation from their form of knowing. It is typical in Skandia AFS. The whole organization is designed around the cognitive tools and the representation of its knowledge creation process.

Large organizations with traditional structures exhibit a tendency to privilege explicit knowledge when the disconcerting situation first emerge (Baumard, 1998). When confronted with the failure of an institutional resolution of the ambiguous situation, successive adjustments are carried out so as to 'draw in' the perimeter of knowledge generation. By drawing this perimeter of action in, these organizations are embodying their knowledge in existent 'communities of practice'; and from then on practical knowledge entered into the legitimate game of problem solving: it becomes an accepted practice. People decide to accept that knowledge, which is less established, more shifting, may be a way to escape the fog in which the company has been enveloped. Hence, the more established the knowledge, the less flexible its re-articulation. On way to overcome such an obstacle, in the traditional knowledge-based view of the firm (Penrose, 1959) is to rely on managerial skills for their tacit nature allows to generate organizational slack when necessary. Imaginary organizations, on the contrary, provide a structural answer to such a dilemma. The question is not to identify and mobilize flexible sources of knowledge to answer emergent needs, but to provide a sufficiently equivocal setting so that knowledge generation is rarely trapped into frozen, and potentially unproductive, settings.

The phenomenon common to all the studied cases is that of a 'de-institutionalization' of knowledge; that is, organizations sought to shift the intervention field from a context that was over-institutionalized to a more flexible and malleable context. Communities of practice were the entities that confronted the disconcerting nature of the situation in a coherent manner. Hence, organizational structures were not designed for the generation and the renewal of knowledge. The traditional resource-appropriation strategy of these large firms is to develop a consistent body of expertise, and then to defend this capability through market and legal agreements. In other words, the studied large firms do not develop knowledge-driven processes, but structures that are designed to retain key resources (people, patents, procedures, etc) that contributes to the protection of the rent. On the contrary, imaginary organizations develop processes that are designed to continually renew their knowledge, and they derive their competitive advantage from the intensive pace of this renewal, not from the inertia of the protective structures that may embody this knowledge (Hedberg et al. 1997). Hence, imaginary organizations use the process of knowing that they want to implement as the organizing principle for their processes and structures.

Proposition 3: Imaginary organizations' sustainability lies in the congruence of their knowing and organizing. The limits to their growth therefore lie in the depth of their initial self-knowledge.

# Do Imaginary Organizations Sufficiently Preserve Their Tacit Knowledge?

From there it is interesting to examine the differences in the socialization of knowledge within traditional structures on the one hand; and in networked organizations, i.e. imaginary organizations, on the other. Knowledge is a material that must be worked upon, digested, absorbed or turned inside out. In traditional organizational forms, knowledge is embodied into recipes and practices that are derived from traditions and hierarchies. In imaginary organizations, processes are designed on the basis of a small body of explicit knowledge (i.e. the software of the information infrastructure) and then, it develops into practice and generates a new body of tacit knowledge (see figure 1 below).

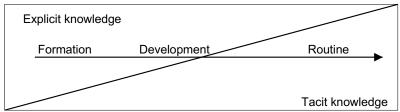


Figure 1: Transformation of knowledge over time in imaginary organizations

What in the beginning is an agreed set of rules, becomes, as the imaginary organization develops, a new community of practice, with the generation of its own body of tacit knowledge. Hence, tacit knowledge in imaginary organizations might well have unsuspected role in the sustainability of their competitive advantage. Whereas 'mechanistic' organizations (strongly hierarchic) can constitute an environment that hinders flexibility, 'organic' organizations - if a thawing of structures is accompanied by a thawing of constitute an environment favoring a permanent re-articulation of market knowledge. The paradox lies in the necessity of maintaining a sufficient 'density' of knowledge (i.e. for product line consistency) while reducing rigidities in knowledge generation, in order to reduce transaction costs and vertical coordination.

In previous research (Baumard, 1998), the observed organizations adapted themselves to ambiguous situations through deliberate or emergent learning. They learned to deploy new

repertories of knowledge and behavior, and to 'unlearn' others while ambiguity became the object of a learning process. On one hand, we identified factors that help in the management of ambiguous situations. Organizations that were successful in dealing with ambiguous situations demonstrated a mutable and 'fuzzy' management of knowledge. On the other hand, several factors hindered the management of ambiguous situations: the domination of 'hard' knowledge over 'soft' knowledge, knowledge's inherence to agendas; the multiplication of useless procedures and the inertia of organizational knowledge. Findings showed that learning to deal with ambiguity is based on the establishment of a balance between 'thick' and 'soft' knowledge, whereas organizations encourage the employment of perceptual categories - in their documentation and their standards - which destroy subtlety and lead to reductive visions of reality. Sense-making efforts require knowledge of a certain thickness and texture: a knowledge that is contoured and accepts both imperfections and 'replies in the form of questions'. Our observation of this learning reveals its conjectural nature. In the case-studies, we have seen: solutions generated in the course of action (Starbuck, 1983); actors proceeding by trial and error or through a process of 'fine-tuning'; and inferences induced from other inferences which resting on a principally tacit knowledge.

While these processes may sometimes converge, and so enable knowledge to be articulated in a more stable manner, managers' impressions and available objective knowledge may also be divergent. There is divergence when explicit knowledge contradicts what is known tacitly, while there is convergence when tacit knowledge agrees with, or is brought together by, explicit knowledge. Divergence expresses then an incapability of articulating tacit knowledge with explicit knowledge. This process takes place when individuals 'recall stimuli that they had been unaware that they had noticed or that they had classified as background noise; this recall suggests that people perceive unconsciously or subliminally as well as consciously' (Starbuck and Milliken, 1988: 47). When there is divergence, two sides of knowledge - a tacit knowledge of an event and an explicit knowledge of it - exist simultaneously, without being able to be melded together: a multiplication of the possible interpretations both of what one knows tacitly and of what one knows explicitly follows. If what seems apparent on the surface diverges from what is known implicitly or unconsciously, there is ambiguity. In fact, these articulations of the tacit knowledge of an event and combinations of the explicit knowledge of the same event are contradictory (Figure 2)

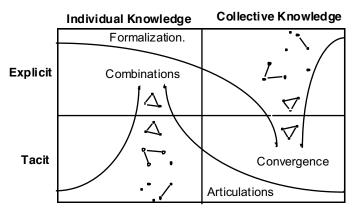


Figure 2: Contradictory knowledge

A moment always arises in the course of these different resolutions of ambiguity where too much clarity becomes a disadvantage. Excess of clarity means an excess of 'frozen' knowledge: of a knowledge that rigidly defines itself, a knowledge that becomes its own enemy. Hence, managers employ 'fuzzy knowledge bases' until the point when they deliberately fossilize their knowledge. Maintaining ambiguity can be necessary to avoid

complete stabilization or inertia, so managers create fog to thrive in the fog in order to be able to modify their own knowledge when necessary (Baumard, 1996). In traditional organizations, chains of socialization allow for this continuous contradictory process to happen, and hence, knowledge can be "frozen" and "unfrozen", "articulated" and "dearticulated" in a peaceful manner. In an imaginary organization, two layers of knowledge coexist. On one hand, the information infrastructure provides a homogenous body of explicit knowledge, with its normative rules and rigid codification. On the other hand, each individual member has to struggle with eventual contradictions between what he knows tacitly and locally, and what the objectified collective knowledge carried out by the global infrastructure is. Moreover, the multiplication of recipients of explicit knowledge in imaginary organizations (computers, optical discs, et cetera) may set down the contextual nature of knowledge. It is not through the numerical disposition of knowledge that organizations cope with disconcerting situations, but through a 'know-how' of a very particular nature, yet nevertheless very common: the participation in the knowable. In 'participating in the knowable' - by deploying their cognition successively on all of knowledge's dimensions - the organizations that we have studied modify their knowledge, become proactive, and manage disconcerting situations. They become aware of their cultural barriers: of those models – hard and explicit – in whose grip they are held. Too confident in their repertories of actions, they unveil 'truths', which they do not want to question. Knowledge proves then a powerful poison, an obstacle to change: in fossilizing their knowledge the organizational representation of reality is impregnated with the 'wax' that made Icarus fall – inertia asserts itself once more as a persistent organizational fact. Until the repertoires action are shown, in one way or another, to be unsatisfactory, members of the organization fail to consider other alternatives, and procedures rest unchanged (March and Simon, 1956). Yet, to be able to uncover potential inertia in their knowledge generation, organizations must be also be able to maintain continuous collective socialization processes as to articulate their tacit knowledge (Baumard, 1998); which leads to proposition 4:

Proposition 4: The limits to growth of imaginary organizations lie in their reduced capability to manage and secure their tacit knowledge which progressively becomes out of reach as they develop over time.

#### Conclusion

Imaginary organizations are built as "problem solving" devices. A market or innovation issue usually motivates their creation. They are a structural answer to organizational dilemmas and market entanglement. But it is not enough to know puzzlement to change. As Hedberg underlines: "if problems were the only triggers of learning, problem-ridden organizations would be the best innovators" (Hedberg, 1981: 17). Organizational knowledge is profoundly modified when organizations change, and vice versa: because the organization changes, it modifies its knowledge. It establishes a dialogue - an interaction - between what is known (tacitly or explicitly, by some or by the collectivity) and what is discovered or elaborated (articulated, or spread through socialization). Thus, organizational knowledge precedes, follows or accompanies change. However, in order to change, organizations or their members need to detect the need for change. The enigmatic or cryptic character of a situation is due to the fact that the organization as a whole cannot develop a shared understanding of the situation.

Imaginary organizations are designed to exploit equivocalities. Neither complete hierarchies, nor complete networks, they benefit from the image of a robust *façade*, while their network form allows for problem-solving flexibility, and knowledge renewal. Yet, networks can

develop as much inertia than hierarchies. As the latter, they may also circulate ignorance, conformity, and blind-faith. One may trust a network for the fantasy of the numerous buildings that it represents, and one would eventually distrust such a network if he or she happens to know that these buildings were imaginary. We trust Skandia, SAS, and Gant because they have, or they had buildings, capabilities, industrial power and renown. Trust is partly embodied into knowledge, which in turn partly shapes our knowledge. Hence, imaginary organizations rely on balancing knowledge and trust. If explicit knowledge develops faster than tacit knowledge, an imaginary organization may encounter a crisis. Without sufficient mutual knowledge, members of an imaginary organization would encounter difficulties to develop mutual moral and performative trust. Yet, imaginary organizations also need hierarchies, because they need institutional trust to lever resources, to be able to sanction, to control and to resist environmental institutional pressures.

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