From a Capability to an Agent-based Framework to Organizational Change

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Resume

The objective of this essay is to provide an agent-centered approach to organizational change. The Organizational Capabilities Approach establishes that patterned organizational processes are responsible for change within organizations. We challenge that view and build upon the perspective that an agent is the main entity that conducts change in organizations. First, we review previous criticisms which suggest that the absence of human agency in the Organizational Capabilities Approach implies a theoretical paradox related to an incompatibility between efficiency and change. That absence of human agency is resulted from the non-subjectivist character of the organizational capabilities approach, which presents its origins in the positivist Resource-based View (RBV) and in the functionalist Evolutionist Perspective. Secondly, from the theoretical paradox identified in the Organizational Capabilities Approach, we review agent-centered theories, namely, the Structuration Theory (ST) and the Autopoiesis Theory (AT), to argue that organizational processes are, in fact, instantiated by connected individuals as co-presence situations that, whether stable or dynamic, originate from the recursive interaction between agency and action. These co-presence situations may be instantiated to conduct both repetitive and innovative activities. Thirdly, we develop a framework to organizational change based on the previously reviewed agent-centered theories, presenting propositions about the relationships amongst the characteristics of and the activities conducted by an agent and his potential of conducting change. By this agent-based framework, organizational change is resulted from three main activities: (1) the development of a new narrative by an organizational member, (2) the discussion and modification of that narrative in co-presence situations and (3) the broadening of the provisory resulted narrative to the organization and the environment. Diversity of knowledge and specialization are contributing factors to the capacity of an agent about developing a new narrative, shared knowledge and dependence on peers contribute to the willingness of an agent about bringing a narrative to co-presence situations, and power and spiritual involvement contribute to the capacity of an agent about broadening a narrative of change to the organization and its environment. Lastly, we discuss research and practical implications of an agent-based approach to organizational change. The benefit of an agent-based framework to change is to avoid the limitations of collective perspectives on change through rigorously setting the individual and his complex interactions as the main level of analysis on change research and practice.
1. Introduction

The concept of capabilities is central to management literature, since it is linked to what organizations can achieve. This concept has been developed by an evolutionist perspective (e.g. Nelson & Winter, 1982) to explain the variation and adaptation of firms, and by a Resource-based View (RBV) of the firm (Barney, 1991; 2001; Peteraf, 1993) to explain competitive advantages. In general, both approaches conceptualize organizational capabilities as being routines, or groups of routines or resources, that are useful to produce outputs and subject to market imperfections (Amit & Schoemaker, 1993; Grant, 1991; Miller, 2003; Winter, 2000).

The combination of evolutionary and resource-based insights has led to the appearance of a further perspective: the dynamic capabilities framework (Eisenhardt & Martin, 2000; Teece, 2007; Teece, Pisano & Schuen, 1997; Winter, 2003; Zahra, Sapienza, & Davidsson 2006). This framework attempts to explain how organizations retain valuable capabilities working in the long-term through constant adaptation, and is particularly useful in bringing greater dynamism to the RBV, which has been criticized for being too static and equilibrium-based (Foss & Ishikawa, 2007; Priem & Butler, 2001).

In accordance with Foss (2003), we call all current capability-based perspectives as “organizational capabilities approach”. This hybrid mainstream addresses multiple phenomena, ranging from the essence and types of capabilities and routines within firms (e.g. Eisenhardt & Martin, 2000; Jacobides, 2006; Kogut & Zander, 1992; Winter, 2003), to differences in performance between firms (e.g. Teece, 2007).

However, the conceptualization presented by the organizational capability approach implies an endogenous explanatory “constraint”, namely, the “capability paradox”, which impedes an explanation of the conciliation that exists between organizational dynamism and efficiency (Grant, 1996a; Leonard-Barton, 1992; Nooteboom, 2000; Schreyögg & Kliesch-Eberl, 2007; Winter, 2003). As we argue in the text, this constraint originated due to the absence of human agency in capability-based theorizations, which in turn impedes satisfactory explanations regarding the subjective nature and dynamism of organizations.

Therefore, starting from a review of the capability paradox, we review, apply, combine and extend the Structuration Theory (Giddens, 1979; 1984) and the Autopoiesis Theory (Maturana, 1980a; 1980b; Maturana and Varela, 1980) to provide an alternative agent-centered approach to organizational change, which is the main objective of this paper. Based on this literature we design an agent-centered framework to change and move the discussion forward by theorizing how different characteristics and activities presented by an organizational agent are linked to his potential of contribution to change as a “narrative network” (Pentland & Feldman, 2007), created, modified and broadened by interconnected agents.

2. The capability paradox regarding organizational dynamism and efficiency

In an evolutionary perspective, organizations have “genes”, represented by their multiple functions routines (Nelson & Winter, 1982). The selective appeal of this form of conceptualization has influenced definitions made about organizational capabilities (e.g. Winter, 2000, p. 983), which are then realized as collectively-constructed processes, “shaped” by conscious decisions (Dosi, Faillo, & Marengo 2008, p. 1165-1166). Since routines are approximations of stable patterns of repetitive interactions (Feldman & Pentland, 2003), through influence, the concept of organizational capabilities has acquired the same slow-changing characteristics. Even when defined through more flexible terms as, for instance, “bundles” of resources that promote multiple tasks (Amit & Schoemaker, 1993; Grant, 1991; Miller, 2003), or “knowledge integration” (Grant, 1996a; 1996b), capabilities have been understood as complex inter-actions, which need to be “developed” from, and “deployed”

It follows by definition that the concept of “capabilities” implies organizational inertia: to develop capabilities, an organization needs to conduct constant, trustworthy and, at least, slow-changing collective processes which, in turn, impede the appearance of radical turnabouts and ensure that the organization is “locked-in” within their previously developed capabilities. This inertia originates a paradox between dynamism and efficiency (Leonard-Barton, 1992; Nooteboom, 2000; Schreyögg & Kliesch-Eberl, 2007).

At first, the notion of dynamic capabilities emerges as a response to this limitation. In order to adapt to changing environments, organizations need to develop dynamic capabilities, which are specialized in reconstructions and are different from “ordinary” capabilities (Winter, 2003). According to this view, organizational learning processes are supposed to be structurally adjusted to the environment (Eisenhardt & Martin, 2000), and integrated with other processes that are more static, in the sense that these promote path-dependent evolution (Teece et al., 1997). However, since dynamic and ordinary capabilities (or stable and learning processes) are distinct entities, the paradox inevitably remains: if organizations need dynamic capabilities in order to create, change and restructure their low-order capabilities, what kind of managerial processes are required to change such dynamic capabilities? In other words, because the term “capability” has to be related to patterned action (Ambrosini & Bowman, 2009), the term “dynamic capabilities” seems to be something contradictory (Schreyögg & Kliesch-Eberl, 2007, p. 923).

This paradox has been recently addressed in two ways. Firstly, it is possible to argue that capabilities have an endogenous potential towards change. Here, a routine is observed as an entity composed of “ostensive” aspects, related to its idea, and “performative” aspects, the idea in action (Feldman & Pentland, 2003). Since members of a routine or capability make variations in the ways they perform, by selecting and maintaining their preferred “ways of doing” as ostensive aspects, change would be an endogenous characteristic of capabilities. Intentional or unintentional dimensions linked to subjectivity and power can initiate changes in routines and capabilities, making it possible for the emergence of lifecycles (Helfat & Peteraf, 2003).

A second approach to conciliate change and the notion of capability is to argue that some mechanisms, external of capabilities, can promote change. Winter (2003) argues that capabilities can change through *ad-hoc* decision-making processes, which occur whenever they are needed and do not demand investments, as (dynamic) capabilities do. Similarly, Schreyögg and Kliesch-Eberl (2007) argue that a ‘capability monitoring system’ could avoid the capabilities paradox, by separating capability evolvement from capability development. In such a monitoring system, managers need to employ some of their “improvisational skills” in gathering, interpreting and managing threatening signals. This is similar to the notion of dynamic capabilities proposed by Zahra et al. (2006, p. 918), which define those as entrepreneurial processes that are conducted to learn about and to improve the knowledge-base of an organization, such as trial-and-error, improvisation, experimentation and imitation.

However, since a capability is a patterned entity, a managerial incompatibility between its essence and the possibilities of change seems to persist. Capabilities should make both change and stable social processes manageable (or at least partially so), and this is not provided under current definitions. Emphasizing an endogenous potential of change in capabilities does not establish the “capability” concept as being responsible for change, but instead sets the agent as the responsible for it. Similarly, capabilities monitoring systems, or eventual entrepreneurial processes, based on *ad-hoc* decisions, deny the full-sense of the term...
“capability”, present their management in an ill-defined sense and, again, determine that the origin of change is outside the capability concept.

2. The origin of the capability paradox: the absence of agency

As suggested in the previous section, the organizational capabilities approach suffers from a constraint resulting from an inconsideration of the subjective and the active role of individual agents in conducting, changing and delimitating organizational processes. In a resource-based lineage, the positivist demand for objective types of capabilities that explain superior performance impedes the conceptualization of knowledge, capabilities and/or any kind of organizational processes as flexible, subjective and constantly enacted entities (Ringberg & Reihlen, 2008). From an evolutionary perspective, there is a need to realize capability as a solid “gene”, which serves as a collective unit of variation and selection. As stated by Foss (2003, p. 190), “quite a lot – and perhaps too much – is packed into the notion of routine, including a variety of behaviors (e.g. heuristics and strategies), organizational processes and arrangements, cognitive issues (e.g. ‘organizational memories’), and incentives (‘truces’)

In this sense, an alternative perspective on change should consider the active and subjective role that agents perform when constituting dynamic organizational processes. In the following sections we review, combine and extend agent-centered theories so as to develop such a perspective.

3. Structuration and autopoiesis theories: basic concepts

In order to develop a framework of organizational change based on the agent, we use the background provided by the Structuration Theory (Giddens, 1979; 1984) and the Autopoiesis Theory (Maturana, 1980a; 1980b; Maturana and Varela, 1980). We have chosen these theories because both have strongly influenced the appearance of a “recursivity-based organization theory” (Hernes & Bakken, 2003), in which social action and agency influence each other in an endless process.

The Structuration Theory (ST) seeks an understanding about the relationship of human agency and “structures”, which governs possibilities of social practices or “transformations”. The structures represent recursive rules of conduct (formal and informal, including knowledge) and resources of domination and power (allocative and authoritative) that enable and constrain social practices. If recursively produced, social practices form social systems, such as organizations, which “comprise the situated activities of human agents, reproduced across time and space” (Giddens, 1984, p. 25).

Nevertheless a structure may be commonly or collectively understood, this “structure exists, as time-space presence, only in its instantiations in such practices and as memory traces orienting the conduct of knowledgeable human agents” (Giddens, 1984, p. 17). In other words, the structure is a “virtual order”, and the instantiation of structures in the moments of action occurs through individual “structuration processes”. Therefore, a social system does not present a structure, but “structural properties”, that organize practices in a time-space extension. However the structure is a “virtual order”, the notion of structuration does not imply an excessive subjectivism, since the reflexive monitoring of action conducted by agents not only produces, but also reproduces the structural properties (i.e. related structures) of the social systems they create by their activities. This recursive movement represents the “duality of the structure” principle. As stated by Giddens (1984, p. 191): “All structural properties of social systems (…) are the medium and outcome of the contingently accomplished activities of situated actors”.

The structuration processes conducted by agents can be classified in ‘modalities’: signification, domination and legitimation. Signification is related to communication and
interpretative schemes, while domination and legitimation are respectively related to power and sanctions and to the way that these are exercised by facilities (e.g. budgets) and norms. In practice, these modalities are interlaced.

Structuration processes allow the existence of a social system when providing two kinds of phenomena: “social integration” and “system integration”. The social integration expresses the reciprocity (relations of autonomy and dependence) of individuals in co-presence situations, and the system integration expresses the reciprocity between actors or collectivities across extended time-spaces. Therefore, in order to exist, the system integration needs co-presence situations as building-blocks, but also requires the existence of a “circuit of reproduction”, defined by “tracks” of processes which feed back to their source, whether or not such feedback is reflexively monitored by agents in specific social positions” (Giddens, 1984, p. 192).

From Autopoiesis Theory (AT), that kind of circuit of reproduction is represented by the concept of “autopoiesis” or “circular organization”, which “constitutes a homeostatic system whose function is to produce and maintain this very same circular organization by determining that the components that specify it be those whose synthesis or maintenance it secures” (Maturana, 1980b, p. 9). This circularity is what characterizes “living systems”, being internally performed by integrants of a social system (i.e. their agents), while they simultaneously create it on a broader level through their interrelations. In this sense, similarly to the “instantiation” of structures conducted by agents in the ST, the AT also confers autonomy to an integrant of a system, since in fact it recursively creates itself and the system. Although influenced by the environment, an agent creates its relationship with it, in search of “structural coupling”. As Maturana (1980a, p. xx) notes: “In the history of interactions of a composite unity in its medium, both unity and medium operate in each interaction as independent systems that, by triggering in each other a structural change, select in each other a structural change”.

This manner of conceptualizing the role of agents in social systems brings consequences to the explanation of change, which we will discuss in the following sections.

4. Co-Presence situations or interactions as forms of agency

Based on ST and AT approaches, the main argument we have built for an agent-centered understanding of change, is the following: any organizational process, either previously developed or occasional, is subjectively instantiated by their participants as situations of “co-presence” (ST) or “interactions” (AT). The agent is the entity that produces and interprets organizational processes and their links, stably or dynamically. Therefore, the capacity of an organization to change is dependent upon its direct and indirect participants, and not on its social processes, which result from the connection of individual activity. This agent-centered view does not imply denying the importance of organizational processes, but just avoids their reification (Giddens, 1984).

Therefore, co-presence situation, rather than routine or capability, is the most basic kind of organizational process. Co-presence situations provide organizations with the necessary social integration, producing complex activities and hierarchies and, therefore, represent a “structural property” of the same. Co-presence situations are constantly created by agents and, in a recursive sense they also influence those same agents.

The structures instantiated in co-presence situations include the identity of individuals within groups and within the entire organization (Perlow, Gittell, & Katz 2004; Sarason, 1995), and knowledge required to conduct both repetitive and innovative activities (Berends, Boersma, & Weggeman, 2004; Hargadon & Fanelli, 2002; Orlikowski, 2002). In this conceptualization, the notions of capability as knowledge integration (Grant, 1996a; 1996b), and of hierarchy as channels of “situated attention” (Ocasio, 1997), are brought together in an
agent-centered notion by the existence of cognitive, power and normative structures, which are instantiated together when agents perform connected activities in organizational co-presence situations. In turn, these connected activities will influence later structuration processes and allow intended and unintended consequences to the organization (Giddens, 1984; Perlow et al., 2004; Whittington, 1992). These activities will also affect the autopoiesis of its integrants, “through the fulfillment of the basic biological preferences (states of pleasure) and rejections (states of displeasure)” (Maturana, 1980, p. xxvi).

Agents produce co-presence situations to achieve connectivity to others. This “connectivity” is related to any “mechanisms, processes, systems and relationships that link individuals and collectivities (e.g. groups, organizations, cultures, societies) by facilitating material, informational and/or social exchange” (Kolb, 2008, p. 128). Connectivity also implies duality, meaning that some “connects” imply some “disconnects” (Kolb, 2008). Organizational members connected in a co-presence situation, which nowadays may be mediated by information technologies (Giddens, 1984; Orlikowski, 2000), are disconnected from others. This duality of connectivity, or “spatiality of the body” (Giddens, 1984, p. 64), associated with the fact that the knowledge of an organization is “distributed” (Tsoukas, 1996), contributes to explain the existence of co-presence situations which, like resources, provide some specific “intermediate goods or outcomes” (Amit & Schoemaker, 1993; Mosakowski & Mckelvey, 1997). These outcomes are “dynamic and specific to the task at hand” (Kor, Mahoney, & Michael 2007, p. 1204).

This agent-centered approach implies running organizations as systems of co-presence situations stretched in time-space by their participants, in which enabling and constraining structures are both the cause and consequence of their actions. In this sense, formal and informal rules, hierarchical structures of authority, knowledge, plans, technology, routines, products and any other form of organizational control and coordination are entities that are structured (i.e. produced and reproduced) by organizational actors which are connected in and between co-presence situations. In other words, interaction is just one among other possibilities of agency. The notions of organizational autopoiesis and systemic feedbacks also imply that integrants of co-presence situations do not have full control of their inputs and outputs.

5. An agent-centered framework to organizational change

5.1 Model overview

Figure 1 presents an agent-centered framework to organizational change, which is composed by “recursive” change actions and influencing factors which guide the crafting of propositions. The model is based in the Structuration (ST) and Autopoietic (AT) theories to consider change (and reality) as something cognitively and actively constructed by organizational members, in a heterogeneous and “distributed” sense (Giddens, 1984; Tsoukas, 1996; Tsoukas and Chia, 2002). This approach considers creativity as something “democratic”, built in day by day practices of the organization (van Woerkum, Aarts, & de Grip, 2007). Therefore, from this agent-centered perspective what matters for an explanation of change is to understand how (the three change actions) and why (the influencing factors) an organizational member produces a specific organizational activity which would be reproduced after.

Therefore, the focus is on the individual level of analysis, and an organizational change which involves several members would imply the ‘instantiation’ of our model by many individuals. Moreover, based on the duality of structure principle in ST, and on the merging of activity and cognition in AT, in the model there is no detachment amongst cognition, emotion and action of an agent. In this sense, the model represents a kind of sensemaking process, in which events, cognition and actions are merged in a constant flux of
“organizing” (Weick, Sutcliffe & Obstfeld, 2005, p. 412). Events, cognition and actions are “categories” condensed by the action-oriented “narrative” construct, which we discuss below.

Two complementary theoretical approaches based our model together to ST and AT. The first is the notion of “narrative networks” (Pentland & Feldman, 2007). By this construct there is not an “organizational form or activity”, but instead “a set of actions or events (…) interconnected in many different ways” (Pentland & Feldman, 2007, p. 781). These sets of activities are not collectively kept in a uniform way, but form distinct and interconnected stories told and experienced by diverse agents: “We use the term network to draw attention to both potential and realized interconnections between actants and actions and the fluidity of these interconnections. Different interconnections make different stories, transforming the context and, therefore, the nature of the things that are connected” (Pentland & Feldman, 2007, p. 781). By this view, patterns of social activity are important, but are contingent, and we are interested in understanding how agents create new patterns from new narratives. Based on this construct, we consider organizational change as the creation, modification, diffusion, test and realization of change narratives conducted by interconnected organizational members.

We also consider a narrative as something composed by dynamic “categories”, and we based this notion from the seminal work of Lakoff (1987). This author offers a view of a category as, for instance, a chair or an organizational process, as something composed by a “radial structure”. Categories present a hard nucleus, which admits common comprehension, and peripheral subcategories, which may be combined to provide change meaning. In this sense, the change of meaning may be conducted by an agent through building a narrative, which may be communicated, transformed and experienced by others and by the same agent in the future (see the feedback arrows in Figure 1). We turn now to detail this process through approaching each of the three main activities of the proposed model.
5.2 Developing individually a new narrative

The literature of creativity and innovation has largely documented the origins of organizational and technological change as the combination of ideas and concepts. Even in an evolutionist sense, part of the “variation” is considered as happening ‘off-shore’, since human beings have the capacity of testing ideas before they are put in practice (Nelson, 2006). Also, even when innovation or change happen in a “serendipitous” way, some sort of agency was available to catch a fortuitous event and transforming it into a new activity (Faulkner & Runde, 2009, p. 457). Since human cognition and action can range from reflective to categorical (or automatic) (DiMaggio, 1997; Gourlay, 2006; Ringberg & Reihlen, 2008), what starts a process of change is the “instantiation” of a new narrative by an organizational member through reflective cognition and/or behavior. Agents engage in reflection “to sustain a high level of cognitive responsiveness and combine/extend internalized cultural and private models in thoughtful (creative, reasoned) ways to improve their sense making” (Ringberg & Reihlen, 2008, p. 922). From the Autopoiesis Theory, this “combination” is resulted from a group of cognitive operations: ‘abstract thinking’, becoming “observers” and “self-conscious” (Maturana, 1980, p. 13-14). They are used by organizational members to interact cognitively and actively with the environment and with their own representations about the world and about themselves, therefore expanding their domain of representations and interactions. From this perspective, and taking the development of categories, activities and stories as the combination of previous ones, the heterogeneity and the vastness of the knowledge sets of an agent are factors which contribute to categorical combination and, consequently, to organizational change:

P1: The diversity of the knowledge sets of an organizational member increases his potential of developing a new narrative of change.

While the positive effect of the diversity of knowledge in the combination of categories is evident, the role of the specialization of knowledge on change is not so clear. For example, in a recent review of the advances in the innovation literature, Fagerberg (2005, p. 10-11) argues that while the “openness” to new ideas and concepts and the ‘variety’ of knowledge and other resources are essential to innovation, specialized assets derived from the path dependent evolution of an organization may limit its possibilities of “combination”. However, from the background we apply here there exists another perspective. Specialized, many times tacit, knowledge, means to domain more concepts and more about the concepts (i.e. their sub concepts) of a restrict area. Therefore, specialization raises the possibilities of combination of subcategories. Moreover, specialization allows the absorption of “external knowledge” (Cohen & Levinthal, 1990), then extending a narrative. Therefore:

P2: The specialization of a knowledge set of an organizational member increases his potential of developing a new narrative of change.

While it seems to be incoherent the keeping of both diverse and specialized knowledge, structurationist studies have stated the possibility of an agent to keep distinct kinds of structures or knowledge sets simultaneously (Berends et al., 2004; Hargadon & Fanelli, 2002; Hung, 2003; Tsoukas & Chia, 2002). Agents engaged in learning process may instantiate simultaneously stable (or reproduced) structures, and new structures, usually accessed by communication or produced by experimentation. For example, the case study conducted by Berends et al. (2004) about learning process in industrial experiments shows how process developers combined specialized (and theoretical) knowledge with unexpected findings from experiments on the production line to create new proceedings. In similar direction, in their in-depth study about two high-technology engineering firms, Hargadon and Fanelli (2002) show how the diversity of contexts experienced by engineers was associated with the development of integrated solutions not previously accessible to their clients due to their more limited experiences.
These studies also show that the combination of specialized and diverse knowledge is enhanced by closed social interaction, as the shorter feedback arrow in Figure 1 suggests. This social interaction is explored in the next section.

5.3 Communicating, modifying and co-opting a narrative in co-presence situations

As pointed before, the essential social processes conducted in organizations are co-presence situations. An agent developing a narrative of change has to interact in co-presence situations for two main reasons. First, and as suggested above, the combination of specialized knowledge and the complexity involved in the creation of physical and social artifacts makes it difficult for an agent, and even an organization, to dominate the entire process of innovation (Pavitt, 2002; 2005). The literature on strategic alliances has presented this phenomenon in a macro sense, but we argue that dependence to others is a basic component which contributes to the willingness of an organizational member to communicate and modify his narrative of change in co-presence situations. In fact, in many cases the necessity of combining and applying tacit and specialized knowledge to a narrative demands closed interaction (Galunic & Rodan, 1998; Lam, 2005; Nonaka & Takeuchi, 1995; Nonaka & Toyama, 2007). Another point is the evident dependence of resources that an agent may present to develop a narrative of change and make it “real” in an organization. Therefore:

P3: The dependence of knowledge and resources of an organizational member on peers, in the development of a narrative of change, increases his willingness of communicating, modifying and co-opting that narrative in co-presence situations.

Related to the dependence, the second reason that increases the willingness of an agent about interacting is co-operation. Even if the movement of change conducted by an agent is about to transform just his work, the autopoietic notion of “structural coupling”, discussed above, implies that a transformation in a system may cause transformation in other systems surrounding it and, therefore, a visualized change scenario has to include other organizational members and their knowledge and reactions. This co-operation is dependent of shared or “common” knowledge, which has been pointed to facilitate communication (and negotiation) between agents from distinct “organizational subunits” (Cohen & Levinthal, 1990) or “cognitive domains” (Nooteboom, 2001).

From a recursive perspective, the roles of shared knowledge to the formation of closed interactions become even more important than from positivist or functionalist approaches, because in fact there is no the phenomenon of “knowledge transfer”, but instead learning, wherein an agent drives the cognition of another through common language (Maturana & Varela, 1980). To summarize, driving the cognition of another agent and/or including him in a narrative, an organizational member has to domain part of the knowledge reproduced by that agent:

P4: The domain by an organizational member of the knowledge reproduced by organizational peers increases his potential of developing a collectively understood narrative of change in co-presence situations.

Interestingly, the last two propositions presented above also seem to present a contradictory character. If an agent keeps high dependence of another, one could expect that they share little knowledge. But, again, this contradiction presents a positivist or functionalist approach. From an agent-centered view, the knowledge of an agent in organizational settings is “enacted in practice” (Orlikowski, 2002) and, therefore, the role of an actor in a narrative is about using knowledge in a dynamic story. Many times, a “practical” role of an agent can not be easily substituted, raising the dependence of the narrative on that agent. This practical complexity raises the chance of mutual dependence even in settings of high knowledge sharing.
5.4 Broadening the new narrative

In broadening a new narrative, an agent tries to influence and tie others far from his direct interactions, to transform a narrow narrative in a “narrative network”. As commented on Structuration Theory (ST), the reproduction of a social system happens not just through co-presence situations, but also through processes that produce “feedbacks”, which transcend direct interactions. The most representative image of this “system integration” may be the role that strategic management teams play in change, which decisions usually impact the entire organization and even the industry. Nevertheless, we argue that all organizational members may play a role in the system integration, since their actions may present consequences far from their co-presence situations. For example, the performance of a worker in a production line may impact the perceived quality of a product and, consequently, the way a firm is perceived by consumers. Here, power is a broad concept, linked to the capacity of an agent to “intervene in the world, or to refrain from such intervention, with the effect of influencing a specific process or state of affairs” (Giddens, 1984, p. 14).

However, at the same time, distinct agents do not have the same power about changing social systems. They differ in their “positions”, which are related to three aspects: (1) circumstances of co-presence (which include the positioning of the body), (2) life paths and (3) normative definitions of modes of conduct, always provided by a specific “locale” (Giddens, 1984). From the normative modes of conduct, the power of an agent, expressed by his capacity of exercising command and allocating resources, will influence the potential of a change narrative to be diffused from co-presence “integration”, to organizational “institutionalization” (Crossan, Lane, & White 1999; Crossan & Berdrow, 2003). In similar direction, Hendry and Seidl (2003) argue that the transformative power of one or more agents may be necessary to initiate a “strategic episodic”, through the suspension of the current organizational communication, and to end it, through the re-coupling of the routines created. Therefore:

**P5:** The power of an organizational member increases his potential of broadening a new narrative of change.

While we identify power as a key component of the diffusion of change, we argue that such power has to be exercised, and in this sense we arrive in the notion of “spiritual engagement”. In a discussion about the reification of organizations in social science, Giddens (1984) explains how decisions we usually perceive as had been taken by a specific organization, were in fact the result of the involvement of organizational members in complex negotiations and search of consensus. Therefore, we expect that involvement is an influencing factor in the willingness of an agent to channel resources and take risks about broadening a narrative of change:

**P6:** The “spiritual engagement” of an organizational member to a new narrative of change increases his willingness about broadening that narrative.

The inclusion of the ‘spiritual engagement’ in our model searches to fill the absence of both ‘the spiritual dimension’ and the ‘intrinsic motivation’ in the positivist or ‘means-end’ view of creativity and planning (van Woerkum et al., 2007) and the absence of the emotional dimension in Structuration Theory (Callahan, 2004, p. 1431).

The broadening of a narrative by an agent would provide feedbacks (e.g. economic returns) to the same agent or others, as the bigger feedback arrow in Figure 1 shows. Evidently, feedbacks are not fully controlled by agency, since choice and consequences depend on a complex and weakly-deterministic “causal background”, represented by “social and material context for choices” (De Rond & Thietart, 2007, p. 536).
6. Discussion and conclusions

Based on an individualistic notion that organizational learning represents the development of individual knowledge influenced by and/or applied to organizational activities (Berends et al., 2004; Simon, 1991), our model avoids collective approaches and presents the organizational change as the result of individual activities performed in organizational contexts. More specifically, we argue that organizational change happens when a new activity is produced and after reproduced by one or more organizational members, what involves the crafting of a narrative individually and in co-presence situations, as well the broadening of that narrative to the organization and the environment.

The model contributes and opens new avenues to future research mainly in two ways. First, since we provided propositions, both qualitative and quantitative research could be applied to test them. In fact, we have already noted some confirmations of pieces of our model in previous quantitative researches linked to the specialization and diversity of knowledge. For instance, in their survey about the determinants of innovation in firms, Jensen, Johnson, Lorenz, and Lundvall (2007) show that the combination of experimentation with scientific knowledge and conduction of flexible and occasional activities based on tacit knowledge raises the potential of innovation.

Secondly, while we acknowledge the possibilities of quantitative research to improve an agent-centered framework to change, we argue that this kind of model demands more qualitative research. In fact, so absent the literature of change is about agency, that we advise the investigation of such phenomenon from inductive methods. Because change processes are complex and emerge from the predispositions and voluntary engagements of situated actors, which may not be addressed in deterministic forms (Corbin & Strauss, 1990, p. 5), influencing factors and activities of change should be understood from the perspective of organizational members. For instance, case studies or ethnographic investigations combined with grounded theory would be appropriated options to advance the comprehension of the role of agency on change. Since grounded methods also have to be supported by previous literature (Suddaby, 2006), our framework may be used as an initial theoretical background, suggesting specific questions about agents. How does an innovative agent manage his specialization and diversity of knowledge, and how does this agent relate them to change? How do capable agents manage formal and informal co-presence situations to raise their diversity of knowledge to construct narratives of change? How does an innovative agent use power to engage broader social systems in his narratives of change? These are examples of research questions suggested by our framework.

In a practical point of view, our model suggests that organizations should not develop capabilities to achieve change, but instead people. Or, putting it differently, capabilities are just people connected. Since individual learning takes time and efforts to be conducted, long-term schemes of personal development are then suggested. These schemes may be formal, such as complex training programs in specialized knowledge, or informal, such as the promotion of friendship networks to raise the common knowledge among their members. Since power and spiritual engagement are also pointed as key influencing factors on change, improving the participation of managers and employees on decision making may also improve the willingness of organizational members about engaging in change. These suggestions may be verified by future research.

It is also important to stress that the framework here stated is about change, and not about ambidexterity. To achieve equilibrium on exploration and exploitation, organizations should conciliate change and stability (March, 1991), and in this sense the model is incomplete. Although our model implicitly suggests that the absence of specific influencing factors on organizational actors would imply a picture of inertia, an agent-centered theory of change would imply a full understanding of the relationship between stability and change.
Crafting such a theory would be a complex endeavor, since it demands not just the comprehension about the individual ambidexterity (what implies theoretical and complex notions of learning and knowledge application), but also the comprehension about how organizational members manage their individual ambidexterity with the ambidexterity of peers, managers, educational partners, suppliers, consumers, governmental decision makers and other citizens. Such a complexity is an important challenge, given the insufficiency of aggregated notions, such as capabilities and resources.

7. References


