Theoretical Explorations into Organizational Ambidexterity:
Enabling the Construct’s Exploitation in Practice

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Summary: Despite more than 20 years of research on organizational ambidexterity, a seemingly necessary condition for organizational success over the long-term, the construct still has to prove its value for research and practice. By performing a theoretical exploration of the current literature, this paper identifies five main distinguishing features of the construct, examines the nature of the exploration-exploitation relationship, explores and discusses the view of ambidexterity as a paradox, and puts forward some implications for research and practice, which may hopefully help the construct’s exploitation by academics and practitioners.
Introduction

The organizational ambidexterity construct has attracted much scholarly attention because it is potentially helpful for theoreticians and practitioners who are concerned with the problem of firm success. The construct offers promising avenues to be explored by those who ask themselves the questions of “why do some firms constantly outperform others?”, or “how can a firm deal with the seemingly contradictory pressures of short-term profits and long term survival”? (Hambrick 2004, Volberda, 2004)

Several definitions of the construct have been used at the literature (Simsek, 2009). Some authors define it as the ability to simultaneously pursue both incremental and discontinuous innovation that result from hosting multiple contradictory structures, processes, and cultures within the same firm (Tushman & O’Reilly, 1996). Other authors attribute it to the ability to simultaneously pursuing both routine and non-routine tasks (Adler et. al. 1999). More recently, authors have described it as the capability to operate in both mature markets where cost efficiency and incremental innovation are critical, and develop new products and services for emerging markets - where experimentation, speed, and flexibility are critical. (He & Wong, 2004). All definitions seem to highlight that, at its heart, the construct holds the opposite notions of exploring new options to provide long term growth, while at the same time being able to exploit the current organizational capabilities to provide profitable short-term success (March, 1989).

However, for the construct to be effectively put to use, one needs more than that common ground; one should be able to identify its occurrence, as well as the process whereby ambidexterity may emerge, consolidate and decline. This demands a process-based rationale to be applied (Mohr 1982, Langley 1999), resting on the understanding that to fully explain a construct requires understanding its inner workings. Explanation comes from the conjecture of the mechanisms that produce and determine something (Bunge, 2004), and therefore, a process-based view should be pursued. In turn, this paper argues that uncovering the inner workings of when and how ambidexterity emerges as an organizational property, as well as how it develops over time (i.e consolidates, matures, declines), is a necessary condition for the construct to effectively deliver its promise of aiding managers and practitioners deal with the pressing questions of organizational success.

It is within this context that this paper aims to make a contribution to research on the ambidexterity construct. It provides a theoretical exploration of recent research done on the organizational ambidexterity construct, and establishes a process-oriented research agenda, based on the literature’s current findings and shortcomings. By so doing, the paper contributes a set of theoretically-grounded requirements for researchers and practitioners to address the current challenge of ambidexterity in different organizational settings.

The organizational ambidexterity construct

Strictly speaking, ambidexterity is a topic of interest to a wide variety of disciplines. Coming from the medieval-latin “ambidexter”, which translates into “two right hands”, it can have three meanings: using both hands with equal ease, being characterized by duplicity or double dealing, or being unusually skillful or versatile. (Tempelaar, 2010).

Although the first mention to the “organizational ambidexterity” construct in organizational studies is usually attributed to Duncan (1976), March’s (1991) seminal paper has been used as a theoretical starting point in most attempts to unlock the construct’s nature,
as well as to position the construct as a topic of relevance in the strategic management literature. In essence, March (1991) postulates that enjoying a superior ability to adapt to changing environmental conditions, while at the same time being able to succeed in the existing business-environment, requires organizations to effectively manage exploration and exploitation activities (O’Reilly & Tushman 2008, Raisch & Birkinshaw 2008).

It can be said, therefore, that exploration and exploitation refer to opposing properties, whose concomitant occurrence gives rise to a tension-like relationship between them. For this reason, since its inception, the ambidextrous organization construct has fueled the debate on how organizations could simultaneously manage the seemingly opposing requirements of exploiting existing competencies and exploring new opportunities (Lubatkin et al. 2006, O’Reilly III & Tushman 2008, Andriopoulos & Lewis, 2009, Piao 2010).

Reviewing the literature, five main features distinguish the organizational ambidexterity construct: its complexity, its wide knowledge-related scope, its multi-level condition, its organizational capability quality, and its dual nature. Each feature is examined next.

**Complexity**

From an ontological viewpoint, organizational ambidexterity can be characterized as a construct and not a concept. According to Bunge (2003a) a construct in the philosophy of science is an ideal object, whose existence may be said to depend upon a subject's mind. This definition lies in opposition to the one of "real" object, where existence would not depend on the existence of a mind. In science constructs are explanatory variables which are not directly observable. On the other hand, a concept is a fundamental category of existence, which corresponds to something directly observable in the world (Bunge, 2003a).

As organizational ambidexterity is not directly observable, it can be said to be a construct. Moreover, since it rests on the premise of the joint pursuance of exploration and exploitation, ambidexterity can be said to be a complex construct, made up of two primitive elements: exploration and exploitation. These, in turn, are constructs in their own right. One does not walk into an organization and observes exploration or exploitation per se. Rather, one sees people and machines executing processes, systems, and practices that can be associated with the exploring and exploiting ideas. This means that not only organizational ambidexterity is a complex construct, but it is also a higher-level construct that rests above the more elementary or primitive constructs of exploration and exploitation.

**Wide knowledge-related scope**

The organizational ambidexterity literature suggests that exploitation and exploration efforts in organizations have distinct shapes and forms. In March’s words: “the essence of exploitation is the refinement and extension of existing competences, technologies and paradigms. Its returns are positive, proximate and predictable. Exploitation includes things captured by terms such as refinement, choice, production, efficiency, selection, implementation and execution.” (March 1991, p. 71). As a matter of fact, exploitation may refer to different issues in different organizational settings. A case in point is the Quality Management Paradigm, which comprises practices associated with total quality management, lean manufacturing and six sigma. By the same token, exploitation may also refer to a wide range of issues. According to March, “the essence of exploration is experimentation with new alternatives. Its returns are uncertain, distant, and often negative. Exploration includes things captured by terms such as search, variation, risk taking, flexibility, discovery and innovation”
(March 1991, p. 71). Exploration may, therefore, be associated with issues such as new product development practices, innovation efforts and new business models development.

**Multi-level condition**

Organizations are multi-level systems (Poole, 2004). A growing body of scholars holds that adequate theories of organizational issues should address multiple levels of analysis, as well as explain the relationships between levels (Poole 2004, Dansereau & Yammarino 2005). In this fashion, being or becoming an ambidextrous organization requires continued and coherent efforts to foster both exploiting and exploring behavior across all organizational levels. For instance, when one thinks of organizational design, handling exploration and exploitation may give rise to different units – one dedicated to mass production of existing products, and another experimenting with the development of new ones. That particular way of dealing with the exploration and exploitation relationship, could cause the birth of two separated cultures (a “manufacturing culture” and a “research culture”, for instance), and cause organizational segregation (Chiesa 2001). Hence, to foster organizational unity (Selznick 1957) one would have to complement that by applying integration devices at the same level, such as the development of an ambidextrous leadership that coordinates both activities, creates a unifying culture and vision, allowing both opposite mindsets to interact with each other and learn to face organizational conflicts that will likely emerge. At the same time, effectively dealing with the ambidexterity challenge, would also require policies at the individual level such as cross-unit incentives, so that the existing and new business units could experience both collaboration and a healthy competition for internal resources. In sum, viewing organizational ambidexterity as an emergent organizational property (Bunge 2003b) requires a multilevel approach vis-à-vis this construct, even though most studies on organizational ambidexterity tend to emphasize the local identification of exploration-exploitation tensions, such as current versus new individual knowledge, and radical versus incremental innovation, to name a few.

**Organizational capability quality**

O’Reilly III and Tushman (2008) maintain that organizational ambidexterity is an organizational property because ambidexterity is embedded in its member’s skills, its own processes, procedures, organizational structures and decision rules that enable senior leaders to think and act ambidextrously. On the same line of reasoning, the resource-based view perspective, submits that organizational capabilities are embedded in existing organizational routines, structures and processes, which, in turn, conform the way managers make decisions and the organization operates as a whole (Nelson and Winter 1982, Teece et. all 1997). Organizational ambidexterity can therefore be seen as a capability - moreover a dynamic one (O’Reilly III and Tushman 2008). Organizational ambidexterity requires collective action, its development is time-bound, and its emergence is path dependent, as well as, causally ambiguous (Levinthal 2000). Hence, organizational ambidexterity reflects a series of actions within the organization. This also means that it cannot be “turned on” and “off” so easily; it requires time to develop and emerge inside an organization, since it is an emergent property. It also is highly context-dependent: what works at a given organization may not work at another.

It can be said, therefore, that the organizational ambidexterity construct should be treated as an emergent organizational property (or capability, for that matter), which develops over time: it emerges through a time-bound, causally ambiguous and path dependent process.
The idea of emergence has been the subject of many fields of research, both in biology, the philosophy of science and the social sciences and refers to the origin of novelties. Hence it is an ontological category, applied to situations where a given property (P) is an emergent property of a system (the case in point being that the property of organizational ambidexterity is an emergent property of the organizational system). More formally, “to say that P is an emergent property of systems of kind K is short for saying that P is a global (or collective or non-distributive) property of a system of kind K, none of whose components or precursors possesses P.” (Bunge 2003b, p. 15) Hence, to find how organizational ambidexterity emerges as a property of the organizational system, a process-based, multiple level approach is required, because one needs to understand how these higher-level properties emerge from a relatively complex array of lower level processes.

**Dual nature**

The organizational ambidexterity construct can be said to have a dual nature. From a long-term perspective of organizational existence, ambidexterity’s two components – exploring and exploiting activities – constitute necessary conditions for the firm’s continued success. Quite intriguing is the relationship these components hold. From a broad viewpoint, this relationship can be described as a tension. In fact, the tension notion conveys ideas such as some degree of incongruence, or an opposition between the exploration and exploitation components, as well as that favoring one element over the other neutralizes ambidexterity’s distinctive feature. However, the tension notion fails to provide clues about the nature of the relationship. Advancing the understanding of ambidexterity requires, therefore, scrutinizing the nature of the relationship between exploration and exploitation. Next section analyzes the issue concerning the nature of the relationship between ambidexterity’s two components.

**Exploring the nature of the exploration-exploitation relationship**

The relationship between exploration and exploitation has been equated (not always explicitly) with notions like tension, trade-off, puzzle, dilemma, and paradox, as illustrated in table 1. This section scrutinizes the nature of the relationship between them, suggesting that the paradox notion may in some ways reconcile the inherent opposition between exploration and exploitation.

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**Ambidexterity as tension**

March’s seminal paper (1991) refers to the exploitation-exploration relationship as a tension, and the tension notion serves several academics as a generic synonym of the other four concepts. This notwithstanding, the tension notion fails to provide any further qualification on the nature of the relationship, precisely what the other notions do.

**Ambidexterity as trade-off**

It may be said that the underlying notion in the concept of a trade-off is giving up something in order to obtain something else. A trade-off is a problem situation in which there are many possible solutions, each striking a different balance between two conflicting pressures (De Wit & Meyer 2010). In a trade-off situation, many different combinations between the two seemingly opposites can be found, but none is inherently superior to the
others. Strategic decisions sometimes present themselves as trade-offs, such as choosing among different combinations of centralization and delegation in organizational decision-making, or among different combinations of product price and manufactured quantity in strategic pricing decisions. In what concerns the organizational setting in which the trade-off concept may be applicable, it can be said that organizational navigation through highly uncertain environments could make use of the trade-off notion, as the balance between exploration and exploitation could be dynamically and continuously adjusted, depending on organizational learning rates.

**Ambidexterity as Puzzle**

In De Wit & Meyer’s (2010) view, a puzzle is a challenging problem with a finite number of defined (but not necessarily known) optimal solutions. In the business environment, puzzles are typically handled by means of mathematical or simulation models. Managerial puzzles can be found in areas such as operations strategy, which concerns decisions such as make versus buy; the optimal level of stock for certain products; or the number of warehouses and distribution centers. All these problems constitute puzzles, because a best way for solving them can be conceived, despite the fact all problems can be quite complex and extremely difficult to analyze. With respect to the organizational setting in which this idea may be applicable, it can be said that organizational navigation through stable, low uncertainty, merciful environments could benefit from the puzzle concept: organizations may be able to survive for a long indefinite amount of time just by exploiting their initial success platform.

**Ambidexterity as Dilemma**

A dilemma is a vexing problem with two possible solutions, neither of which is logically the best (De Wit & Meyer, 2010). nor does each competing alternative exhibit clear advantages and disadvantages. Therefore, dilemmas may sometimes give rise to a sense of paralysis, because they imply that a definitive choice must be made between polarities (Luscher & Lewis, 2008). A case in point is the well-known prisoner’s dilemma in game theory (Dixit & Nalebuff, 2010). Strategic decision making is often framed as a dilemma, as in the case of cooperation vs competition decisions. Dilemmas encompass a potential resolution by means of an either-or choice. As for the organizational setting in which the dilemma concept may be applicable, it can be said that dealing with ambidexterity as dilemma may be useful over short periods of time. For instance, in face of low environmental munificence, as in the case of a financial crisis, the organization may be compelled to focus, on one single side of the exploration-exploitation relation, and favor exploitation to the detriment of exploration in order to maximize its survival chances. Conversely, in the course of major technological breakthrough periods, organizations may concentrate its most valuable resources on exploration to the detriment of exploitation, in order to ensure that the organizational is not locked-out of new technologies or technological platforms.

**Ambidexterity as Paradox**

Loosely speaking, a paradox has to do with two apparently contradictory or mutually exclusive elements that seem to be true at the same time. As such, a paradox would have no real solution, that is, no way of integrating the two opposites into an internally consistent understanding of the problem. As opposed to the “either-or” nature of the dilemma, the paradox can be characterized as a “both-and” problem: one factor is true and the other factor
is simultaneously true at the same time (De Wit & Meyer 2010, Smith & Lewis 2010). Hence, when facing a paradox, the problem solver wrestles with a problem, whose final solution is unreachable. At best, s/he can conceive a workable reconciliation to cope with the unsolvable paradox. Several strategic situations encompass a paradox, such as the one relating dynamic of commitment and path dependence (Ghemawat, 1991). In such cases, the decision makers may have to accept that not all strategic options are available to him (because he is “locked-in” a specific path, due to previous investments), while at the same time having to find solutions that are adequate in the face of new and demanding environment requisites. This type of situation poses a paradox: the optimal solution has to be as much a product of the organization’s past history as it is of the new future market demands.

**Viewing the exploration-exploitation relationship as paradox**

This section explores organizational ambidexterity in light of the organizational paradox literature, and discusses some implications for the management of ambidexterity should the exploitation-exploration inherent tension be equated with the paradox notion.

As several authors have remarked, choosing how to address exploration and exploitation is constrained by the organizational setting, as well as by the decision maker’s cognition (March 1994, Smith 2000, Smith & Lewis, 2011). As a result, depending on the practitioner’s or researcher’s cognition, i.e. how s/he regards the nature of the exploration-exploitation relationship, actions taken and theorizing will likely differ because each notion that has been associated with ambidexterity implies a slightly different way to handle it. Therefore, a theoretical challenge that has practical implications concerns the nature of the construct’s key relationship. In view of such diversity one might wonder whether ambidexterity should be treated as one single construct, or as multiple constructs that share a common name.

As mentioned previously, ambidexterity requires handling opposite polarities such as, search for the new versus refinement of the old; innovation versus replication; variation versus retention; risk taking versus efficiency (March 1991, Smith & Lewis 2011), among others. The inherent conflicts are associated with inconsistent managerial cognitions (Gavetti & Levinthal, 2000); inconsistent organizational contexts (Gibson & Birkinshaw, 2004); inconsistent managerial skills (Virany & Tushman 1986); rates of learning (Miller, Zhao & Calantone 2006); and competition for organizational resources (Gupta, Smith & Shalley, 2006).

This paper argues that the paradox notion can serve a reconciling function in what concerns handling the opposite polarities and conflicts, which are inherent in the exploration-exploitation relationship. Such reconciliation draws on the multilevel nature of the construct. For one, the and-and relationship lies at the core of the construct at the organizational-level, requiring firms to be proficient in handling tensions between exploration and exploitation simultaneously (Andriopoulos & Lewis 2009, Benner & Tushman 2003, Gupta et al. 2006, Smith & Tushman 2005). In addition, paradoxical thinking is suited to situations when no choice can effectively resolve the tension because opposing solutions are needed and interwoven (Luschier & Lewis 2008). As a result, at the macro level i.e. the organizational level, the paradox concept can provide an overarching framework that can explain perceptions of the exploration-exploitation relationship as tension, trade-off, puzzle or dilemma – perceptions that form at lower levels, such as business unit and functional departments. The idea of treating organizational ambidexterity as a paradox is also aligned to the fact that it is an emergent property, after all, an emergent property of a system is one that none of its
components or precursors possesses (Bunge, 2003b). Paradox resolution tactics play a key role in the reconciling function mentioned above.

Viewed as an up and coming topic (Eisenhardt 2000, Clegg 2002), the investigation of paradox in the organizational literature has been the subject of over 360 studies in the past 20 years (Smith & Lewis 2011). Paradox resolution tactics constitute a distinctive feature in the study of paradox. Four resolution tactics have been identified: selection, separation (of time and space), integration and transcendence (Seo, Putnam & Bartunek 2004).

This paper puts forward a 3-resolution tactics framework. These are: separation of time, separation of space and integration. Transcendence is left out because to the best of the paper’s author’s knowledge, it is not mentioned in the ambidexterity literature. This set of tactics, we maintain, can provide guidelines and clues on how conceiving ambidexterity as paradox can apply in practical situations. Each tactic and likely implementation traps are described next.

### Ambidexterity by means of separation tactics (temporal and spatial)

Handling the exploration-exploitation relationship requires the separation of the opposing poles, a tactic that has been called architectural ambidexterity (Andriopoulos & Lewis 2009, Gupta et al. 2006, Birkinshaw & Gibson 2004). This tactic refers to the use of dual structures and strategies, in order to set apart efforts focused on exploration or exploitation. As noted by Puranam et al. (2006), separation tactics rely on spatial (i.e dual organizational structures) and / or temporal separation (i.e periodical oscillation between exploration and exploitation).

In what concerns **temporal separation**, the same set of resources carries out exploration or exploitation at different time periods. This goes in line with Simsek et al. (2009), who have suggested working around the relationship by introducing in the organization cyclical foci on exploration and exploitation. In a similar way, ambidexterity may be fostered through sequential attention to goals or rhythmic pacing of tasks. A downside of this practice would be requiring managers to identify when the change from exploration into exploitation, and vice-versa, is advisable. Empirical results have been ambiguous in relation to the possibility of making the call of when and how to change from exploration to exploitation, or vice-versa (Fang & Levinthal, 2009, Posen & Levinthal, 2012).

**Spatial separation**, in turn, enables simultaneous exploration and exploitation activities in the organization. A typical example of this tactic would be rendering a core business unit responsible for creating and capturing value from existing products and markets, while another new or existing business unit would be in charge of prospecting new markets, developing new technologies and keeping track of emerging industry trends (Birkinshaw & Gibson, 2004). Sometimes separation is also achieved through the use of a portfolio approach that enables management to draw clear boundaries concerning exploration and exploitation activities. Also, the implementation of spatial separation seems to require resource allocation metrics tailored to the nature of exploration and exploitation activities: while goal-centric metrics fit exploitative efforts, discovery-driven metrics suit exploratory efforts, which tend to focus on learning (McGrath & Macmillan, 2009, O’Reilly III & Tushman, 2009).

### Ambidexterity by means of integration tactics

Integration tactics are typically associated with behavioral aspects of management teams, which may integrate both poles of the exploration/exploitation relationship, and produce contextual ambidexterity by making use of specific actions, values or judgment
Integration tactics emphasize behavioral and social ways of integrating exploitation and exploration. The basic idea here is that socialization, human resource and team-building practices, foster shared values and aid coordination, helping actors think and act ambidextrously on a daily basis. This approach has been typically prescribed at the executive level, associated with top management. It may be translated as behavioral integration, where the top management team synchronizes their subordinates’ social and task processes (Hambrick, 1994) helping executives cope with the contradictory knowledge processes of exploration and exploitation (Lubatkin et al. 2006, Andriopoulos & Lewis 2009). Hence, supportive social processes (i.e. recognition practices, socialization), culture and interpersonal relations may help firm actors think and act ambidextrously. (Birkinshaw & Gibson 2004, Smith & Tushman 2005). Other ways that this integration could be achieved include the cultivation of a paradoxical culture or organizational vision, and the use of shared incentives and HR Policies, such as variable compensation dependent on both the performance of exploration and exploitation activities.

**Tactics implementation traps**

Four main traps have been identified: (i) *competency and failure traps*, which result from the over-focus on either exploitation or exploration (Andriopoulos & Lewis, 2009, Gupta et al. 2006); (ii) *isolation and lack of coordination between activities*, where two separate cultures arise and there is few communication and coordination among them (Gibson & Birkinshaw, 2004); (iii) *cognitive tug of war*, which comes about when decision makers face different competing demands (Sheremata 2000, Gibson & Birkinshaw 2004); and (iv) *erosion effect*, that occurs when top management’s ambidexterity fails to reach middle and lower levels of the organization, thus “eroding” ambidexterity implementation efforts down the organizational hierarchy (Birkinshaw & Gibson, 2004).

These traps can be seen as breakdowns or side-effects of the tactics themselves. The overuse or misuse of a particular tactic may trigger vicious cycles that lead to an increasingly one-sided focus on either exploitation or exploration. These traps also happen because paradoxical tensions spark defenses that may inhibit change and fuel counterproductive reinforcing cycles (Sundaramurthy & Lewis, 2003).

Table 2 illustrates typical ambidexterity-fostering practices regarding separation and integration tactics. Illustrative practices and likely implementation traps are organizes according to different levels of analysis: individual, group, and organizational.

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**Implications for research and practice**

As stated before, this paper aims’ include performing a theoretical exploration of some of the most recent research done on the organizational ambidexterity construct, to yield value in a two-folded manner: (i) by providing guidelines for further studies, addressing the gaps that research has left this far and (ii) by providing insight on how managers can effectively deal with a construct in action, through a series of tactics associated with the paradox literature. Hence the present session is organized accordingly.

**Contributions and implications for further academic research**
Three main contributions can be identified concerning possible research avenues uncovered by the analysis proposed on this paper. Each one of them will be dealt in turn.

For one, there seems to be an opportunity for process-based, longitudinal research on organizational ambidexterity. This happens because current research has been more focused on finding relationships between organizational ambidexterity and other variables (i.e. performance), leaving a good opportunity to further the understanding what are the mechanisms through which organizational ambidexterity emerges, develops and dies as a higher-order capability in organizations. In order to uncover such mechanisms, the time horizon of the studies is a key-success factor, making the case for more process-based longitudinal research. (Cao, Gedajlovic & Zhang 2009, Burgelman 2011). This type of research would also help avoid tautology claims, which sometimes are associated with explanations that link specific capabilities to organizational performance (Priem & Butler, 2000).

The second implication for researchers is that organizational ambidexterity should be treated as an integrated multi-level construct. As discussed on the previous sessions, organizational ambidexterity must be seen as a construct that emerges through the interplay of a series of triggers / mechanisms disposed at multiple levels. Hence, to uncover how a given organization becomes ambidextrous through time, further research should search for explanatory variables on all levels: at the individual level (i.e incentive structures, different leadership personalities), at the organizational level (i.e organizational design, culture, coalitions) and at the environment level (i.e types of inter-firm linkages, strategies for navigating in the institutional environment). This also means that the general relationship between exploration and exploitation that frames the construct will have to be depicted and identified as the relationship between different practices coming from related strands in the literature (i.e such as strategic management, human resources, total quality management or innovation). Putting it differently, to explain organizational ambidexterity is to explain how organizations become ambidextrous through time. And since to explain something is to reveal its inner mechanisms (Bunge, 2004), then to explain how organizations become ambidextrous is to uncover an array of mechanisms that exhibit interplay through multiple organizational levels.

Finally, additional research is required to realize the potential benefits of treating organizational ambidexterity as paradox, a notion that provides an overarching explanatory framework for other views, such as trade-offs, puzzle, or dilemma. Such studies should dig deeper into what would mean for people viewing organization ambidexterity as paradox; how such paradoxes become active (as opposed to latent) in organizations (Smith & Lewis 2011); and which tactics may, can or should be employed to handle ambidexterity as paradox.

**Contributions and implications for practicing managers**

Also, the analysis put forward in this paper has also potential implications for practitioners, who may be concerned with building ambidextrous organizations in practice. Three main contributions for practicing managers have been identified and are discussed below.

The first contribution is realizing that there seems to be no sure-recipe or silver bullet for building ambidextrous organizations. The reviewed literature strongly suggests that becoming ambidextrous is a context-dependent process, which must be aligned with the organization’s particular history and culture. It also acknowledges that managers should look for triggers (i.e. organizational design or investment decisions) that lay the seed of long-term
success, while at the same time being profitable and healthy on the short term. However, it is up to management tailoring the organization’s DNA.

This line of reasoning also leads to the second major implication: organizational ambidexterity must be a guiding construct ever present in a manager’s mindset while s/he muddles through the organization’s major resource allocation processes (i.e. budgeting, strategic planning, project portfolio planning). The key to building ambidextrous organizations is not only context-dependent but also continuous search-dependent, a behavior that must be pursued through time. Hence, managers should have in mind that they are conducting a time-bound and path dependent process, which requires an ambidextrous mindset to integrate resource allocation decisions that are multi-domain (i.e. human resources, quality and innovation). This also means that building ambidexterity may require attention to more high level strategic decisions, such as deciding on building an R&D facility, or even spinning-off a new venture, as well as to more micro-level operational decision like granting funding for rogue research, or allowing time for experimentation.

Finally, managers may benefit from management literature on specific tactics to deal with paradoxical phenomena in organizations, and build their organization’s own toolkit for doing so. For instance one an ambidextrous approach to human resource management would call for striking a balance between short and long term incentives for its employees. Likewise, an ambidextrous approach to a firm’s product portfolio would encompass promoting quality control practices in a production line, while at the same time providing incentives for new product ideas to be brought to manager’s attention. Hence, by seeking insights in various disciplines and management fields, collecting identified practices, and implementing them with the right mindset, management can facilitate the emergence of organizational ambidexterity in their firms.

**References**


Table 1. Multiple terminologies that refer to the relationship between exploration and exploitation at the core of organizational ambidexterity
<table>
<thead>
<tr>
<th>RESOLUTION TACTICS</th>
<th>INDIVIDUAL LEVEL</th>
<th>GROUP LEVEL</th>
<th>ORGANIZATIONAL LEVEL</th>
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</thead>
<tbody>
<tr>
<td><strong>SEPARATION OF TIME</strong></td>
<td>✓ Sequential attention and rhythmic pacing to exploration and exploitation strategies</td>
<td>✓ Team management practices: Job rotation or formal time separation (x% of time to explore and y% to exploit)</td>
<td>✓ Cyclical strategic focus</td>
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<td></td>
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<td></td>
<td>✓ Alternation between exploration and exploitation</td>
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<td><strong>SEPARATION OF SPACE</strong></td>
<td>✓ Different evaluation metrics for employees focusing on exploration and exploitation</td>
<td>✓ Division of labor and Separate projects and teams for exploration and exploitation</td>
<td>✓ Dual structures and strategies</td>
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<td></td>
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<td></td>
<td>✓ Separate organizational structures</td>
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<td></td>
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<td>✓ External alliances</td>
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<td>✓ Different resource allocation criterion</td>
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<tr>
<td><strong>INTEGRATION</strong></td>
<td>✓ Cross-business units performance metrics</td>
<td>✓ Project Portfolio approaches</td>
<td>✓ Business Portfolio approaches</td>
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<td></td>
<td>✓ Cooperation and brokering for integration</td>
<td>✓ Top Management as integrators</td>
<td>✓ Cultivation of a paradoxical vision or culture</td>
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<td>✓ Shared incentives and HR Policies</td>
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<tr>
<td><strong>TRAPS</strong></td>
<td>✓ Cognitive tug of war (integration)</td>
<td>✓ Erosion effect (top management vs middle and lower management noise)</td>
<td>✓ Success or competency traps (focus on exploitation)</td>
</tr>
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<td></td>
<td></td>
<td>✓ Isolation and lack of coordination (separation)</td>
<td>✓ Failure traps (focus on exploration)</td>
</tr>
</tbody>
</table>

Table 2. Illustrative ambidexterity-fostering practices and implementation traps