

Looking for complication:  
The case of management education

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Abstract

This paper argues that in face of the changes occurring in the organizational world, management education should consider the need to rethink some of its premises and adapt to the new times. The need to “complicate” management learning due to increased complication in competitive landscapes, is analyzed. Four possibilities of addressing organizational topics in a complicated way are contrasted: the vertical, horizontal, hypertextual, and dialectical approaches. The promises of the dialectical approach are particularly stressed as a more demanding and potentially enriching path for the creation of knowledge about organizations. The test of the four approaches in a group of undergraduate students provides some preliminary data for analyzing the strengths and weaknesses of our proposal.

## **1. Introduction**

It is frequently claimed that organizational environments are becoming more complex and dynamic. To use the suggestive words of Bettis and Hitt (1995), it can be said that new competitive landscapes are emerging, characterized by ambiguity and uncertainty, and leading to what became known as hypercompetition (D'Aveni, 1994).

The education of business managers, thus, should accompany those changes. It should help managers to shape of 21st century organizational forms: able to learn (Scott Morton, 1995) and create knowledge (Nonaka & Takeuchi, 1995), to relentlessly change (Brown & Eisenhardt, 1997), to stay at the edge of chaos (Stacey, 1991), and to reinvent themselves (Brown, 1991). In sum, business students and managers should be exposed to dynamic and unstable views of business environments, to contradicting pressures and demands, and to the inevitability of multiple interpretations of organizational phenomena.

Looking at what "21st century management" is all about, it will be concluded that it refers, to some extent, to the simultaneous handling of organizational opposites: efficiency and effectiveness, change and stability, mechanism and organicism, chaos and order. This paper builds upon two observations: (1) that these tensions should be resolved through complicated thinking (i.e. "complication") and (2) that, in most cases, management learning is still fundamentally oriented towards practicality (i.e. simplification). This gap may be widening due to the consultancy industry, which

caused consulting firms and business school professors to be prone to look for immediately actionable management theories, than to apply the vanguard of academic research to their teaching and consulting efforts.

This paper analyzes how the simplicity-oriented, unidimensional paradigm prevailing in management learning, can be avoided. It builds on the argument that the dominant logic of simplicity may be parsimonious and adequate for the ease of apprehension and socialization/uniformization purposes of business and management education, but that it will not pay off in the long-term. We therefore elaborate the case for complication in management education. By complication we refer, drawing on Ramírez and Vasconcelos (1999), to the amount of information necessary to describe something. This concept should be distinguished from complexity, or the amount of information presumably lacking to describe something.

The paper is organized as follows: section 2 presents evidence that current theories may be too simple (i.e. simplistic) for adequately describing complex environments and acting upon them. Nevertheless, in many cases, the logic of simplification prevails even in face of adverse evidence. As a result, the need to complicate business thinking via business education is proposed in section 3, where four perspectives for complication are presented. Dialectical reasoning, with a simultaneous focus on seemingly contradicting ideas, is presented as a preferential path for complication (section 4). To better expose a dialectical approach to the “complication” of business education, three tensions will be offered as illustrations, and their implications briefly discussed in the final part of the paper (section 5).

## **2. The logic of simplification**

It is widely accepted that the organizational behavior of people depends on their interpretations of reality (e.g. Gherardi, 1998). The way people interpret reality, then, may be thought of as influencing their actions and the performance of their organizations (Jones and George, 1998). For instance, if they interpret a complex reality as a simple one, they may act upon it as if they were actually dealing with something simple. But the organization (or its environment) doesn't become simple because someone faces it as that. This observation, as obvious as it may sound, may not be taken as seriously as it deserves in many contexts of management learning. Most textbooks, for example, present organizations as relatively simple systems, where cause-effect relationships may be easily discerned. These systems may have many interrelated parts, which is indeed a measure of complexity, but the rules for organizing these parts are relatively straightforward, clear-cut, and, most important, uncovered by textbook authors. Examples include the list of rules cumulated in decades of propositional knowledge created by organizational theorists: if size is large then formalization is high; if strategy is prospective then centralization is low; if the environment is stable then centralization is high, and so on (Tsoukas, 1998, p.44).

This unitary and objective – and thus solid and scientific – view of organizations, may be misleading because, when a concept is defined in a certain way - and accepted that way – every phenomena that does not comply with the definition is excluded from analysis (Fineman and Gabriel, 1994). Cognitive lenses or frames of reference, then, establish what managers should perceive as important and what they should not

(Shrivastava and Schneider, 1984). Shielded by their cognitive lenses, managers will then be selective and consistent in their interpretations of the organizational world (Starbuck and Milliken, 1988), reinforcing the spiral of selectivity and consistency that leads to more and more simplicity (Miller, 1993). Simplicity is then viewed as “the narrowing, increasingly homogeneous managerial ‘lenses’ or world views” (Miller, 1993, p.117) developed by managers. This narrowing tends to produce an overwhelming attention to a single perspective, precluding other views – either competing or complementary. In the end, this is what distinguishes simplicity: something not compound, made of a single element.

On the contrary, when more and more inequivalent descriptions of a system are offered, it becomes perceived as more complicated, and subsequent managerial action will potentially reflect such elaboration and complication (Tsoukas and Hatch, 1997). In fact, under the availability of contrasting frameworks, managing does no longer mean learning to use better the very same set of rules (single loop learning) but learning the system from a different set of rules (double loop learning; Argyris and Schön, 1978). The debate between the potential advantages of theoretical diversity echoes another that is taking place in the field of organization science: the debate between the acceptance of a paradigm versus the need for variation advocated by those that adhere to the opposite position (Pfeffer, 1993; Van Maanen, 1995). This is the same type of discussion that will take place here, although under new clothes: should we, as management researchers educators, embrace diversity or refuse it in order to reinforce the foundations and the solidity of a dominant and uncontested body of knowledge (i.e. a paradigm), preparing it for the clash with alternative, competing paradigms (e.g. the economic paradigm)?

If we take organizations as complex social systems, we will need complex thinking about them (i.e. requisite variety). Multiple understandings (e.g. theoretical diversity, alternative frameworks) would certainly constitute a good way for improving management learning. But a look at learning artifacts shows that management discourse and education are often engaged in a search for simplicity. Why, for example, do management textbooks and consultant-made “cookbooks”, insist on the presentation of “sanitized” versions of organizations (Fineman and Gabriel, 1994, p.386), and of managerial “silver bullets” of dubious value but enormous popularity (Micklethwait and Wooldridge, 1996; O’Shea and Madigan, 1997)?

A possible response is “because people need to simplicate”. Non-academic views of organizations, in particular, tend to be simple enough to be actionable (see Miller, Greenwood and Hinings, 1997). Simple heuristics may not show the functioning of organizations but they provide a sense of control (through understanding) that may be a valuable resource for those trying to figure out how to apprehend and to act upon the “buzzing, blooming, confusing” world of management and organizing (Van de Ven, 1999).

The organizational literature, however, is crowded with claims about the limitations of simplification. The explanation of organizational change and innovation as linear sequences of discrete phases are only common examples (e.g. Van de Ven and Poole, 1995; Stevenson and Greenberg, 1998).

### **3. Escaping from simplicity**

The acknowledgement that different views of organizations lead to different actions and interpretations of managing and organizing, is a relatively recent phenomenon as well as the use of multiplicity as a framework for organizational analysis. Multiplicity can only be avoided for the sake of simplicity, but not without cost. Embracing multiplicity, however, may not be an easy task, because the perspective one espouses is generally underpinned by deep philosophical roots (Rao and Pasmore, 1989). The more divergence one adds, the more one may be moving away from his/her “normal position”.

An important event in the history of “complicated” understanding of organizations is Weick’s recommendation that managers should be able to understand reality from multiple viewpoints: “complicate yourself” was the advice (1979, p.261). The need to acquire “complicated” understandings is best explained by the law of requisite variety, which basically states that, to deal with variety one needs variety. Or, in other words, if the environment is full of variety, an organization competing in it must be equivalently varied: “if a simple process is applied to complicated data, then only a small portion of that data will be registered, attended to, and made unequivocal. Most of the input will remain untouched and will remain a puzzle to people concerning what is up and why they are unable to manage it” (Weick, 1979, p.189). Jack Welch translated the law of requisite variety to managerial language when he stated that “When the rate of change inside the company is exceeded by the rate of change outside the company, the end is near” (in Kotler, 1999, p.205).

The defense of complex understandings has deep roots in the social sciences (see Bartunek et al., 1979). In short, it teaches us that some people (i.e. those people that have developed greater cognitive complexity), are more able than others to analyze a phenomenon from multiple, complementary angles. Because organizations and environments are complex, they can not be captured with narrow frameworks. Thus, an important role of management scholars, is to educate students and practitioners in order to make them able to complexify their thinking. To achieve such a goal, one needs to complexify teaching situations so that they may stimulate students to use “the whole brain” (Carver, 1997, p.265). In this paper, however, the focus will not be so much in the instrumental means for achieving “complicated” understandings, but in the way complication itself has been conceptualized, and discuss more thoroughly one possibility of escaping it.

We propose four paths or perspectives for complication (see Figure 1): (1) a “vertical” perspective, centered on the multiplication of points of observation, (2) an “horizontal” perspective, focused on the exploration of a phenomena from different levels of analysis, (3) an hypertextual perspective, centered on the use of different epistemologies, and (4) a dialectical perspective, aiming to draw new theory from the confrontation of opposite points of view. These orientations are discussed in the following paragraphs.

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Figure 1 about here

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### **3.1. The vertical perspective: Multiple views**

A form of complication that seems to be growing in importance is through vertical diversity. The assumption underlying it is that it is insufficient to take organizations as phenomena reducible to a single view. On the contrary, organizations must be taken as complex and multifaceted realities, that should be approached from multiple angles. Some well known operationalizations of this perspective have been proposed by Burrell and Morgan (1979), Morgan (1986), Bolman and Deal (1991) and Mintzberg et al. (1998). We call this the vertical diversity approach because it assumes that each perspective shows a different angle of organizational reality.

The authors on the diversity perspective consider that a way of seeing is a way of not seeing, and that organizations should be analyzed on the basis of different paradigms (Burrell and Morgan), metaphors (Morgan), frames (Bolman and Deal), or schools of thought (Mintzberg et al.). Their approach to complication consists in the analysis of organizational phenomena according to these different perspectives. For example, the analysis of organizations according to one metaphor provides some information about organizational functioning that is not uncovered by other metaphors.

This approach to complication is now popular due the success of the books from which it has emerged, and its applications range from undergraduate to executive education. The development of “diversity games” (e.g. Beazley and Lobuts, 1998) also contributes to the success of the approach, showing how it can be used in classroom.

The diversity approach points out that, given the impossibility of capturing the essence of organization with a single perspective, one needs to multiply the angles of observation. Therefore, the “comfort” of a total perspective is traded by the stimulus of a multi-perspectival and pluralistic analysis. Its main implications can be captured in prescriptions like “Encourage people to think from multiple perspectives” or “Use different approaches to promote diverse explanations of the same phenomenon”.

### **3.2. The horizontal perspective: Levels of analysis**

To avoid simplification, some authors recommend that analysts approach a phenomenon from different levels of analysis (hence the label “horizontal”). The perspective of multiple levels departs from the position that different degrees of depth can be identified in the analysis of social events. At surface, some organizational dimensions can be analyzed (e.g. behaviors) but not others (e.g. the attitudes underpinning those behaviors). The multiple level perspective is recurrent in organization studies. It is used as the organizing framework of many textbooks (e.g. Luthans, 1998), to the analysis of organizational topics, like culture (e.g. Hofstede’s [1991] onion model, and Schein’s [1985] levels of culture). The multiple levels perspective may be a powerful source for showing that what seems to be a complete and meaningful piece of reality, may in fact be only a segment of a wider reality. To capture the richness of the multiple levels approach, one needs to drop the “continuum view” of levels of analysis, and trade it by a meso approach, based on the understanding of each level as a subsystem, that influences and is influenced by both micro and macro events.

Ungson's (1998) study of the Asian financial crisis, provides an illustration of how interpretations arising from the analysis of a problem at different levels, flesh the discussion with the argumentative variety necessary for avoiding superficial simplicity. By engaging in downward thinking, one approaches the generative causes of a problem located at a micro level of analysis, and gains a clearer understanding of the limitations of each level's truth. Another analysis of the recent Asian financial collapse (Biggart, 1998) shows that the refusal of superficial simplicity and a critical approach to the way problems are addressed, provides deeper explanations and may help to avoid misleading "evidence". Like, for example, taking a proximate, superficial cause (default on debt) as explanatory, therefore ignoring a ultimate, deep level cause (social organization). Strauss and Corbin (1990) developed an extension to the grounded theory method, called the conditional matrix, that attempts to take into account the interrelation between multiple levels of analysis as an explanation for a phenomenon.

The attention that some authors are now paying to the meso level (House et al., 1995), promises to enrich and to complicate the horizontal perspective, namely by highlighting the reciprocal influences between levels, as well as the need to articulate them in a consistent manner.

### **3.3. The hypertextual perspective: Epistemology**

Jerome Bruner, in his 1986 book *Actual minds, possible worlds*, argued that there are two modes of cognitive functioning, which he called the logico-scientific mode and the narrative mode. The first mode searches for general laws or rules that may help to discover a scientific truth; the second is more interested in the specificities of human

experience, which means it is more context-dependent, historically situated and based upon personal experience. Tsoukas and Hatch (1997) transferred this model to the field of organization studies and showed that both modes are applicable in organizational analysis. In the same vein, Czarniawska (1997) discussed the status of narrative knowledge in organization studies, showing that the quest for a “pure science” of organizations may be an impossible and useless task.

The contrast between the logico-scientific and the narrative modes of thought clearly echoes the art vs science debate. The characteristics attributed to these modes are briefly presented in Table 1.

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Table 1 about here

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Instead of viewing science and art as opposites, they are viewed as complementary. The image, here, is that of hypertextual analysis. Beneath any scientific approach, there is always an artistic possibility waiting to be discovered. The organization, then, should read not as text but as a hypertext (Nonaka and Ichijo, 1997). We therefore propose the switch from organizational text as palimpsest to organizational text as hypertext: there is no need for erasing previous analyses while starting new ones. The complementary use of the “cold” (rational, objectively-driven) and “hot” (personal, subjectively-driven) versions of Pascale and Christiansen’s (1983a, 1983b) analysis of Honda’s entry in the American market, provides an example of hypertextuality in the context of management

education. The move from objectivity/rationality, to subjectivity/emotionality perspectives, may provide an enriching experience. Both modes can be used as sources of learning. A possible way for circumventing the traps of linearity induced by textbook rhetorics (Fineman and Gabriel, 1994) could be by switching from a dominating logico-scientific knowledge to a narrative mode of analysis. Narrative knowledge about organizations, reflected in and veiculated through stories, may instill organizational students with “real life” episodes, or news from the fring line (Frost et al., 1992), where things do not confine to textbook descriptions (and so, to scientific knowledge). The gap between organization science and organization reality (Frost et al., 1992) may be bridged through the practice of switching between modes of knowledge. The complexities of daily management may be introduced in management learning through the use of stories, be they personal examples, movies, case studies, or novels.

The invitation to understand organizations as quantity but also as quality (Thachankary, 1992), as science but also as art (Guillén, 1997; Brown, 1996), as text but also as hypertext, may lead to different layers of meaning and produce richer understandings than one-sided analyses. As suggested by Kets de Vries and Miller (1987), the researcher-as-interpreter-of-organizational-texts, will act like a translator or a cryptographer, who transforms different levels of understanding, thus producing new approximations to organizational realities.

Telling and interpreting organizational stories may be a relevant educational process. It is, for example, a vehicle for the transmission of a professional culture, a soft and subtle means of organizational control, an informal mechanism for socialization, a path for the

construction of managerial identity (Clark and Salaman, 1998). As such, the hypertextual utilization of both scientific and narrative modes of understanding, may provide managers with contrasting and more enlightening views of their organizations.

### **3.4. The complicated perspective: Dialectics**

The previous forms of escaping from simplicity show the limitations of one-sided views. However, they do not remove the possibility of choice between (in)compatible understandings. For example, the analysis of an organizational phenomenon with compatible metaphors, will not force divergence to come to the fore (Tsoukas, 1993). Thus, they may not stimulate the creation of new knowledge, but only the reorganization of existing knowledge. As such, they may not be generative and may not produce a significant improvement on organizational thinking and on managerial practice.

A dialectical mode, in turn, necessarily involves two contradictory entities, the engagement of these entities in conflict, and the emergence of a different entity as a product of that conflict. As such, a dialectical view of organizations refers not only to recombining knowledge, but also to generating new knowledge on the basis of exploring available knowledge from different angles. Dialectical theory is, in some aspects, a more demanding mode of knowledge generation because it does not acritically conform to the existence of opposites. For example, if there are two competing views on a phenomenon A (+A and -A), a dialectical approach will go one step further than, let's say, metaphorical thinking. It will not simply accept diversity as a given from which one should pick the best framework for understanding, but will lead

to the creation of a new theoretical entity, combining knowledge from the two previous instances ( $\pm A$ ).

The potential of dialectical processes to organizational analysis and management learning, has received a growing interest in recent years. The fields of organizational change (Van de Ven and Poole, 1995) and strategic management (Schweiger et al., 1986) provide examples of how tensions between polar opposites may lead to the creation of new approaches to organizational phenomena. Although noting that dialectics may be a relatively imprecise label, encompassing a variety of processes (see Nielsen, 1996), the concept will be taken here in the sense of meaning the creation of knowledge on the basis of contradiction, with contradiction being the common starting point for the multiple varieties of dialectics (Mason, 1996).

#### **4. Dialectical tensions in management learning**

In this section, three organizational tensions will be approached from a dialectical stance. These tensions provide only a sample of applications of dialectical inquiry to organizational analysis. We will discuss the global vs specific, theory vs practice, and deliberate vs emergent tensions, but many others could have been selected, including the thought vs action, effectiveness vs efficiency, routine vs innovation, organicism vs mechanicism, integration vs differentiation, or competition vs cooperation.

A successful utilization of dialectical inquiry requires that participants (be they managers in the boardroom or management students in the classroom) accept several basic principles: (1) participants will be willing and able to take each other's positions

seriously; (2) a genuine effort to build new knowledge will take place; (3) differentiation is as important as integration.

*Tension 1: The global vs specific tension*

It is now clear that the business world is no longer domestic. On the contrary, the globalization of the economies is a *fait accompli*. This change confronted managers and organizations with a significant challenge: to find out if old and domestic models are still valid in the new and globalized business arena. The growing international contact also confronted managers and scholars with a new question: to test to what extent do American management theories apply in different cultural contexts (Hofstede, 1991). Two major thesis can be identified to answer this question: the universalist thesis (“management theory is global”) and the culturalist thesis (“management theory is culturally specific”).

*Thesis: Management theory is global*

According to the universalist thesis, the process of globalization-in-progress will force organizations to become more and more alike. Culture, therefore, is less and less an issue. The universalist thesis, then, argues that “management is management” (Schneider and Barsoux, 1997) and by consequence, the tools and techniques it provides (management by objectives, total quality management, reengineering, etc.) are of worldwide standard application. As any other field of science or engineering, management may be applied in any context without a major regard to the characteristics of that context. Taking the principles of management science as universally valid, neutralizes the importance of context specificities.

*Antithesis: Management theory is culturally specific*

The culturalist thesis argues that management is a socially/culturally constructed activity. Therefore, it is sensitive to the characteristics of the context where it takes place. Managing a company's division in a cultural context is not the same as managing another division of the same company in a different cultural context. Different cultures produce diverse mindsets which, in turn, lead to differentiated ways of managing and behaving (Adler, 1984). Assuming that those specificities are negligible, creates a path for failure, because as demonstrated by cross-cultural research, people from different cultures vary in the way they spend their working time, how they act, and how they expect their organizations' to treat them (Bond and Smith, 1996).

*Synthesis: Management theory is specifically global*

To dialectically approach the globality vs specificity thesis, one has to ask not if culture is important but when is culture important (Adler, 1984). Of course some aspects of management may be universally useful: most techniques may be valid, in their general features, throughout the world. Their successful implementation, however, may follow different paths, which are culturally specific, with culture referring not only to the culture of the organization, but also to national values.

A synthetic view of the global/specific tension, then, proposes that neither thesis nor antithesis seems to capture the complexity of organizational phenomena. Under a dialectical view, management can be characterized as specifically-global, or globally-specific. Or, in other words, as a general phenomenon that includes fragments of

peculiarity. Attempts to universalize organization science are probably condemned to coexist with efforts to identify culture-specifics (Bond and Smith, 1996). The attempt to separate them at whatever price it takes, may be a “pragmatic” but unreasonable way of addressing the problem.

Child's (1981) contribution to the global vs specific debate, concluded that macro level variables (like structure and technology) are becoming more similar across cultures, but that micro variables (like individual behavior) are still highly differentiable. Child's conclusion clearly opens up the way for a dialectic approach to the globality vs specificity debate.

#### *Tension 2: The theory vs practice tension*

Another tension in management learning involves the separation of theory and practice. Such tension can be illustrated by several symptoms, including the difficulty of transferring knowledge from theory to practice (and vice-versa), the insufficient dialogue between universities and business organizations, or the criticisms regularly raised by business executives against the bureaucratic functioning of universities.

#### *Thesis: Management theory is theoretical*

The thesis that management theory is theoretical, takes the value of theory *per se*. The pursuit of knowledge is taken as a noble endeavor, that needs no further justification or legitimization. Additionally, researchers may not aim to reach prediction and control (which are the main goals of “practical” theories), but to generate alternative or “pure” forms of knowing (Willmott, 1997)

The role of management theorists is not to solve organizational problems, but to study the way organizations work and, ultimately, how they solve their problems. Additionally, the independence of scholars is a fundamental means for guaranteeing the possibility of critical viewing our organizational society (Ramsay, 1996). Taking management school as the “theoretical arm” of business interest, as assumed by the managerialist position, would amount its function to that of the consulting firm.

The theoretical nature of management theory is also reflected in the fact that it has to turn its interest not only to problems of immediate application, but to a labor of research that has rules (methods, jargon), which are not necessarily taken as important by business firms. In the end, they may not even be understandable to firms (Bedeian, 1989).

Taking this thesis too far, or limiting management to theory, will lead to abdication of an important part of the management research work: contributing to the creation of safer and less wasteful organizations (Willmott, 1997).

*Antithesis: Management theory is practical*

Management may also be taken as an applied field. The role of management science and education should then be assessed against criteria of how well it helps organizations to solve their actual problems. Additionally, the world of “real organizations” is so full of interesting and intellectually stimulating cases, that there is no reason to avoid them.

The researcher, then, should abandon his/her university “ivory tower” and enter the “real world”.

There are obvious limitations in this thesis: granting dominance to the practical side of management will transform business education in no much more than another version of consultancy-based knowledge, and this will ultimately lead to the ignorance (or subalternity) of fundamental knowledge in favor of panacea and tool kit, instrumental research.

*Synthesis: Management theory is theoretically-practical*

A possible way for synthesizing the theory-practice tension, is through Kurt Lewin’s famous dictum “There is nothing so practical as a good theory”. Or to accept that problem-driven learning and learning in the face of mystery (Gherardi, 1999) are processes ready for reconciliation.

Some authors position themselves in the theoretical pole of the continuum, others in the practical one (see Table 2). They are both completing only a part of the theoretical puzzle that is being dealt with. Be the result of their quest artifacts of retrospect or narratives of prospect (Weick, 1999), they are equally far from bridging the gap between the complex richness of reality and the comparatively simple apparatus created to deal with it. So, maybe the best one can do is to circulate between “theoretical theories”, to exercise the mind and extend the limits of imagination, and “practical theories”, to see how such theoretical constructions deal with reality. Theoretically-practical theories are those grounded on the reality principle, but that do not bias or

distort reality to make it closer to the postulates or assumptions underlying the theory. The argument that high failure rates associated with some model or technique (e.g. reengineering) are due not to problems regarding theory itself, but to those related with the way it is implemented, may be symptoms of poor theoretical development of some practical “theories”.

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Table 2 about here

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Mitroff and Churchman’s (1992) proposal for the test of implementation of scientific theories, provides a good starting point for a discussion on how to transform good theory into good practice. Following these authors advice, implementation and not only publication, should be considered as a measure of impact of scientific work. Another way of approaching the theory/practice debate is through the cross-fertilization between academics and managers or consultants. Brown and Eisenhardt’s 1998 awarded book, provides an example of how fruitful this collaboration may be. The convergence of goals and processes between a growing number of companies and universities (Santoro and Chakrabarthy, 1999), reinforces the need of approximation.

### *Tension 3: The deliberate vs emergent tension*

A classical debate in management theory opposes the view of organizations as deliberate with that of emergent forms of collective action. The debate is dominated by the formal view, which is also the more attuned to the managerialist perspective on

organizations. The growing importance of the science of complexity, however, led to a growing interest for emergence (e.g. Stacey, 1996).

*Thesis: Management theory is about deliberateness*

Managing is about coherently aligning strategies, structures, and processes, in order to reach some prespecified objectives. The role of the manager consists in planning, organizing, directing and controlling the organizational system, so that organizational functioning is as smooth and predictable as possible. The activity of managing, with its roots in engineering (Shenhav, 1999), has a passion for order, predictability and efficiency, abhorring unpredictability and uncertainty as management failures.

The “deliberate” nature of management is known since the beginning of the discipline as science and profession (e.g. Taylor, 1911). Management theory should then be conceived as a theory about social deliberateness: how to attract, retain, and control people so that they interact with technology and among them in a pre-specified way? This view, that takes management as social engineering (Tsoukas, 1994), probably constitutes the dominant mindset, even today, in times of great disorder (Ilinitich et al., 1998), and provides managers with the doses of self-confidence and with the general rules of action necessary to confront turbulent environments.

*Antithesis: Management theory is about emergence*

A growing number of authors is highlighting the importance of the emergent side of managing and strategizing. Mintzberg (1994), with his sound announcement of the fall of strategic planning, created the vital space for the concept of emergence to emerge.

Accepting managerial action as emergent activity means that the manager does not act “by the book”. Mintzberg (1975) showed that accounts of the managers’ job were plagued by incorrection and unrealistic assumptions. Much of management, in fact, is about fragmentation, real-time decision making, personal contact and other activities that separate managing from deliberately planning, organizing, directing and controlling. It may refer, instead, to improvising, learning while doing, bricolaging, having luck and taking advantage of surprise (Crossan et al., 1996; Thayer, 1988; Cunha et al., 1999).

Accepting that managing is about emergence, means that heavy formal (i.e. deliberate) systems will work against the capacity of organizations to adaptively cope with turbulent and unexpected environments. Emergence, on the contrary, would favor the organizations’ capacity to rebuild itself according to necessity and to act fast (Lanzara, 1983). By enacting few rules and letting the system organize and disorganize according to necessity, companies would be best equipped to thrive in hypercompetitive environments, where things may change rapidly and substantially (D’Aveni, 1994).

*Synthesis: Management theory is about deliberate emergence*

For too long, management theorists acritically accepted the necessity of choosing between organic and mechanistic structures. Deliberateness or emergence would be more or less valid depending on the environment. Brown and Eisenhardt’s (1997) research on relentless change, however, showed that the organizations that better coped with environmental turbulence, were those characterized by a mix of organicism and mechanicism. They were neither guided by formality nor by (organized) anarchy. On

the contrary, they expressed a balance of rules (few but important) and freedom (rules provide boundaries, not prescriptions).

Managing is about the creation of deliberate emergence, or about the balance between structure and freedom. The better the organization handles this paradox, the better it will perform (see again Brown and Eisenhardt, 1997).

### **5. Complication in the classroom: Some preliminary evidence**

The four modes of complication were recently used in the context of the practical classes of an organizational behavior course for management students. The course took place during the first semester of the 1999/2000 academic year. The methodology was relatively straightforward: during the semester, every group of students should use all of the four perspectives discussed above (vertical, horizontal, hypertextual, and dialectical). To do so, the class received, in the beginning of the semester, a list of the organizational topics under discussion (e.g. work motivation, organizational change), a calendar of each group's presentation, and the perspective which should guide the presentation. Each session included four presentations on the same topic, using all the four perspectives. By the end of the semester, each group have made eight presentations, two with each of perspective. The goals were twofold: (a) to submit each group to a variety of "ways of seeing", and (b) to submit the whole class to four different perspectives on the same problem per session. The vignettes on Table 3 provide brief descriptions of one case for each perspective.

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Table 3 about here

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At the end of the semester, students were asked to evaluate the classes on several aspects. Responses received are briefly discussed. These results are, by no means, an attempt to test the usefulness of the ideas presented here, but only a first glimpse at how seriously should our modest proposal be taken.

52 students filled a short questionnaire aimed to collect first evidence about how our approach to complication was perceived in the classroom. The questionnaire was composed by five items. Its administration took place after completing the exam of the end of the semester. Students were asked to:

- (1) to expressed their preferred approach (metaphor, levels, hypertext, dialectics)
- (2) to distribute a total of 100 points by the four approaches, according to their relative interest
- (3) to indicate to what extent did the four approaches provide a better understanding of organizations than any single approach
- (4) to express the degree of difficulty represented by the need to think about the same phenomena according to four different perspectives
- (5) to attach one of the following four degrees of difficulty to the four approaches used: very easy, easy, difficult, very difficult.

Data obtained (see Table 4) show that:

- (1) the approach that provided a better understanding of organizational phenomena, was the dialectical one (18 cases), followed by the metaphorical (14) and level (11) approaches. The hypertextual approach was perceived as the most illuminating by 5 students only.
- (2) When asked to distribute a total of 100 points by the four approaches, students attributed, on average 30.7 points to the dialectical approach, 28.8 points to the metaphorical approach, 22.0 points to the levels of analysis approach, and 19.7 points to the hypertextual. These results are consistent with those obtained on item 1.
- (3) The evaluation of how much the multiple approach improved the comprehension of the topics of organizational behavior, showed an average result of 2.8 (SD= 1.4) on a 7-point Likert type scale, where 1 referred to a lower understanding and 7 to an improved understanding.
- (4) When invited to evaluate if multiple approaches make the study of organizational phenomena more difficulty, an average of 3.5 (SD=1.6) was obtained on a 7 point scale. No relation was found between the difficulty and understanding variables.
- (5) To obtain a more detailed understanding of how students evaluated each of the perspectives, they were asked to attribute a level of difficulty to each of the approaches: 1=very easy, 2=easy, 3=difficult, 4=very difficult. Results are shown in Table 2. Results indicate that the metaphorical and level of analysis approaches are easier to grasp, while the hypertextual and dialectical approaches appear as more demanding.

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Table 4 about here

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Considering the data as a whole, it seems that the effort of complication may be worthwhile: although somewhat difficult to grasp, the dialectical approach seems to be rewarding in terms of its capacity to improve the understanding of organizational topics. Although some “mixed feelings” seem to exist in relation to the *pot pourri* of approaches – possibly due to its unconventionality – the results are encouraging. More attention, however, should be devoted to the use of the hypertextual approach: students classified it as a very difficult but not so illuminating approach. Its use should then be more fine tuned.

## 6. Final comments

“The test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time and still retain the ability to function” (F.Scott Fitzgerald, quoted in Mintzberg et al. 1998, p.20).

Taking F. Scott Fitzgerald’s dictum seriously constitutes a stimulus for following a dialectical approach to management learning and analysis. Such a dialectic or balanced thinking, however, is not the norm. Managers are usually trained in terms of oppositions –organicism vs mechanicism, placid vs turbulent, efficiency vs effectiveness, routine vs innovation, work vs non-work – that stimulate and ingrain an “either/or” world view.

This kind of fragmented thinking may lead to schismatic views of organizations, and to distorted implicit theories of managerial action. The origins and consequences of this bias to opposition, need to be explicitly addressed, not only by practising managers, but also by management educators.

Several means can be used for training managers to “complicate” their understanding. These include the use of colliding case studies (Pascale and Christiansen, 1983a, 1983b), colliding frameworks for analyzing the same case (Mair, 1999), multiple teaching approaches (Bartunek et al., 1983), diverse teaching materials, including novels and films (Czarniawska-Joerges and Monthoux, 1994; Champoux, 1999), devil’s advocacy (Cosier and Aplin, 1980) and dialectical inquiry (Mitroff and Mason, 1981).

Complicated understandings is becoming more important as organizational environments get more complex (Bettis and Hitt, 1995), and organizational structures try to keep pace with environmental change. The need to move from hierarchical to networked structures, accompanied by the switch from first and second order, to third order, subtler controls (Perrow, 1986), means that it will become more important for managers to fairly understand their subordinates’ behavior instead of using the simplifying cognitive mechanisms identified by social psychological research (e.g. undervaluing situational variables, attributing poor performance to dispositional characteristics, and so on; Ross, 1977; Mitchell and Wood, 1980).

Our claim for “complicating” management learning, doesn’t mean that the functionalist, one-sided mode, is useless or unimportant. It provides generalizations

and abstractions that spread a widely shared, empirically-grounded basis for understanding managing and organizing. However, even rich theoretical grounds may become too simple if taken as the exclusive or best way for explaining organizations.

This paper departed from the assumption that there is a gap between practical activity and management learning: practical activity is perspectival, understood by different people in different ways and not available as an objective given (Packer, 1985; Boje, 1995). Thus, plurivocity should be as normal in management education as it is in the “real world”: instead of simple, one-sided, scientifically-legitimated and ready-to-use truths, different, sometimes divergent, interpretations, should be used as food for managerial thought, and as variety creation devices necessary for reaching more than incremental improvements in a monolithical view of the organizational world.

The role of management educators as developers of “complicated” understandings, is perhaps less “user friendly” than other ways of approaching management education. The persuasive logic of interactive tales told by management gurus, for example, may be much more sounding and comforting (Clark and Salaman, 1998) than the approach proposed here. Comfortable thoughts spread by competent problem-solving administrators, however, should not be the *raison d'être* of management learning and education (Chia 1996), even if too often it appears to be so (Mittroff and Churchman, 1992). The creation of entrepreneurial imagination (Chia, 1996) or of managers equipped with “complicated” understandings, will certainly help to create managers more conscious not only of the complexity of managerial work, but also of the multiple dimensions (human, moral, aesthetic, ideological) of organizational action. Such an

awareness, in turn, may prove to be a necessary condition for the pursuit of a fair society.

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Figure 1

Levels of complication

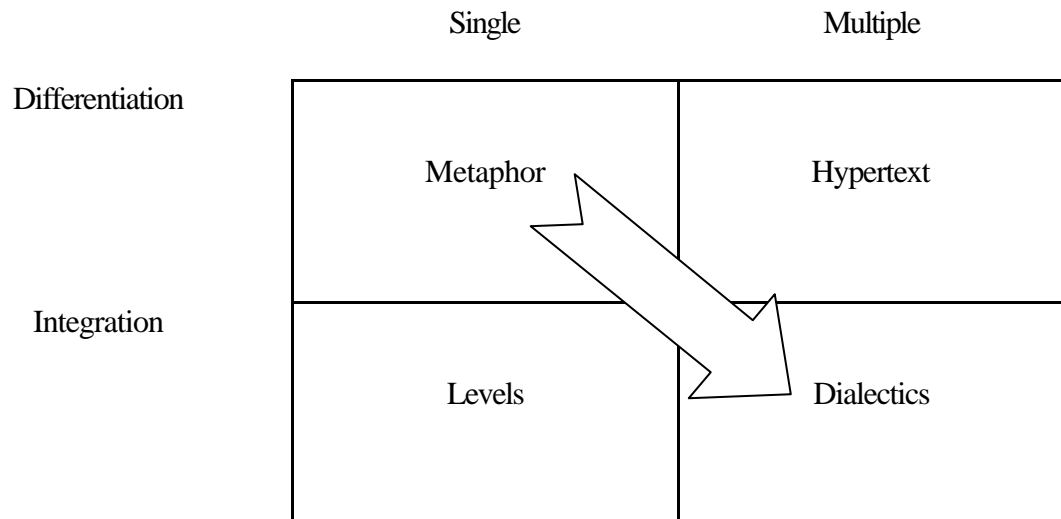


Table 1  
 Constrasting science and art

| <b>Science</b>     | <b>Art</b>           |
|--------------------|----------------------|
| Universal          | Particular           |
| Realist            | Relativist           |
| Impersonal         | Personal             |
| Empiricist         | Interpretivist       |
| Rational           | Affective            |
| Instrumentalist    | Constructivist       |
| Positivist         | Humanist             |
| Leads to the truth | Leads to sensemaking |

Table 2

Contrasting the theoretical and practical modes of understanding

(adapted from Brown, 1999)

| <b>Theoretical understanding</b> | <b>Practical understanding</b> |
|----------------------------------|--------------------------------|
| Erudite                          | Horny-handed                   |
| Unimplementable ideas            | Seat of the pants              |
| Impractical thoughts             | Nontheoretical                 |
| Intellectual challenges          | Implementable wisdom           |
| Aesthetic ideals                 | Operationable thoughts         |
| Philosophy                       | Science                        |
| People of letters                | Action men                     |

Table 3

## VIGNETTES ON TEACHING IN FOUR LEVELS

## Level 1 – Metaphor

In a case on corporate culture, a group of students rearranged the classroom in a fashion similar to the setting of Plato's Cave and they role played its story. However, instead of using the symbols the story describes, they used values and beliefs to illustrate the challenge in making an organizational cultural change succeed.

## Level 2 – Level of analysis

In a corporate restructuring case, a group of students prepared a role play that showed how the values and beliefs of an entrepreneur shaped those of the organization (individual level) and how the organization's values and beliefs shaped the thoughts and actions of employees admitted later to the company (organizational level). This allowed them to argue that culture can originate either from the individual (micro-level) or from the organization (macro-level).

## Level 3 – Framework

A group of students used medicine to tackle a case on organizational change. More precisely, they used the principles of transplants to illuminate the issue of implementing organizational innovation and change. Dressed as surgeons working on a patient in an improvised operating room, the students explained their intervention aloud as if they

were implementing a change in an organization. They talked about the need to do a previous assessment of donor compatibility and pointed out that, independently of the care taken in accomplishing this task, there was always the possibility of rejection. They asserted that this was due to the fact that anti-bodies may attack the organ confusing it with an unwanted trespassing in the body, arguing that this could be used to understand the resistance people offer to change, as they may be acting against a perceived threat which is needed for the very survival of the organization.

#### Level 4 – Dialectics

In order to explain how one can integrate deliberate and emergent organizational action, students brought several musical instruments to the class, and part of them started to play a song according to a pre-composed score. Afterwards, the others played a song with no score at all – the quality of the music was somewhat poor. Finally, they all joined to improvise around a pre-written score showing that a ‘little’ plan is more favorable to creativity than none at all.

Table 4  
Assessment of difficulty levels

|                    | Metaphor | Levels | Hypertext | Dialectics |
|--------------------|----------|--------|-----------|------------|
| 1 (very easy)      | 26       | 17     | 2         | 4          |
| 2 (easy)           | 19       | 23     | 8         | 5          |
| 3 (difficult)      | 6        | 8      | 19        | 22         |
| 4 (very difficult) | 1        | 4      | 23        | 21         |