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### James March: A Postmodern Perspective on Organization Without Management Theory

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# James March: A Postmodern Perspective on Organization Without Management Theory

#### Summary:

In this paper, we look back at James March's main contributions to the evolution of organizations and their decision-making. No other author in management science has been quoted as much. Yet his view on these issues is often far removed from the dominant academic representations. On the basis of an in-depth analysis of his work, we discuss the main concepts to which he has dedicated his life as a researcher. Whether it is for innovation and the process of exploration associated with it, or for the ambiguity that persists in learning cycles, March always shows us the ambivalence of our concepts. While innovation is seen as the ultimate goal of any good differentiation strategy, his research warns us of the negative effects that can be associated with it, and the risks it poses to the organization. The same applies to the notion of ambiguity in learning. While our research would like to exclude it from our decision-making models, it reminds us of its persistence, but also of the potential for creativity that it constitutes. Like a doctor who, in his pathology, weighs all the effects of a disease, his view of organizations goes beyond appearances to get closer to their natural functioning. The strength of March's work is to encourage us to remain cautious in our diagnoses for the development of our companies by not venerating too strongly the notions seen exclusively as virtuous, such as innovation or by not too quickly condemning situations perceived as harmful, such as ambiguity. Concepts are often ambivalent and our knowledge is formed in the course of our experiences. It is therefore subjective and unpredictable, making the idea of a unified theory of management inoperative (Joullié, 2018). March's way of thinking is deeply postmodern in the sense of Foucault (1961) who saw the world as a representation. In March's case, learning is ambiguous and decisions are often far from purely performative logic. In this social game, myths play an important role in organizations and behavior takes on roles that counteract any objective learning based on facts. His teachings remain of the utmost importance for both practitioners and academics in charge of modeling the real functioning of our organizations.

In cosmic history there are no ending, just reconstitutions of matter. But lives end, and so do wishes for novelty.

(J.G. March in "Zen", Quiet Corners, 2008, p. 108)

Which professor would try to teach leadership to future business leaders using mainly classics from literature such as Cervantes, Shakespeare or Tolstoy? Who would dare to explain to future Chinese leaders (Rhee, 2010) that, like Don Quixote, we do things not for their consequences or for any reward, but to satisfy our identity and self-realization? Such as this famous knight errant "we justify what we do, not by a belief in its efficacy but by an acceptance of its necessity" (March, 1999, p. 372). For what is creativity: to feed with constancy and tenacity the flow of what people expect, or to take the opposite view, and surprise by producing novelty while risking not always being understood. Usually success smiles at the former, but posterity is more frugal and ends up crowning the latter. James March knows that models, concepts and theories are all meant to be replaced one day. Therefore, he does not give them any more importance than they already have. For him, every scientist must be ready to replace these theories, while producing them in the most serious way in the world. Theories are false, but they are useful because they magnify individuals by giving meaning to their actions. In terms of notoriety, few works such as the one he wrote with Herbert Simon (March & Simon or M&S, 1958) at the Carnegie School are still so well known today (Wilden et al., 2019). In it, they propose a form of pragmatic rationality based on constrained decision-making performance programs in which the use of routines and the appropriation of roles in organizations mean a great deal. Bounded rationality is a break with the strong format proposed by the economists who dominated decision theories at the time (Von Neuman-Morgenstern, 1947; then Savage, 1954). His major contribution, with Cyert proposing an alternative theory of the firm (Cyert & March, 1963), continues to animate numerous studies (Garvetti et al., 2012). Human act in social organizations very often "in spite of consequences rather than because of them" (March, 1999, p 376). Rhee (2010) draws this interesting parallel between the concepts highlighted in March's work and Chinese thought as is expressed in the classical literature of this immense country. The parallel is indeed striking for conceptions of learning and adaptation, for the place of experience or attention in our human organizations. As a visiting scholar at his side at Stanford in 1992, I would add an additional dimension that would justify this

parallelism of March's thought with the intellectual legacy left by this Asian culture. A nation is often represented by a work that does not characterize it (Don Quixote for Spain or Shakespeare for the English). Nothing is less Spanish than the innocent rationality of Don Quixote or less English than Shakespeare's main characters' extroverted outpouring of feelings. It is astonishing to observe that of the great figures of literature that inspired March (see March, 2003; Augier, 2004; Augier- March, 2005, March, 2005; March, 2006, March, 2007) from which he drew heavily in his lectures, none are North American (de Cervantes, Tolstoy or Shakespeare). More generally, the link between management and philosophy (e.g. Kierkegaard) to describe managerial behaviors has often been used by March and other researchers (Segal - Bruce, 2017).

March is not North American in his thinking, he is just as Scandinavian as he is Latin throughout his work. March is universal before being American. So obviously he is also Chinese, particularly when he brings notions such as ambiguity, superstition, risk-taking, or the logic of appropriateness of roles into the field of management theories. As his system of thought is ultimately resistant to paradigms and models, March privileges the immanence of things over absolute truths. In this sense, he is the most Chinese of North American thinkers. It is precisely for all these incongruities that I suggest you encounter this brilliant troublemaker.

Through his experiences, first as Dean of Irvine and then within the GSIA group at the Carnegie Institute of Technology in Pittsburg, he learned the importance of interdisciplinarity and disruption in the management of organizations (Lambert, 2016; Kavanagh, 2020). March alone is a considerable work that is highly eclectic with many contributions in the social sciences, such as political science (thesis in political anthropology), education and management. The wealth of his contributions makes it particularly difficult to put his work into a pedagogical perspective. For unlike Simon, March is a radical researcher. He has little confidence in rational-looking discourses. In this respect, his work is in line with the mistrust of the construction of a theory of rationality (Cristofaro, 2017) or, more generally, with the utopian objective of building a theory of management (Joullié, 2018). By emphazising interpretation and experimentation at the heart of organizational learning, March proposes to see managerial action as a representation rather than an objective fact (Bowden, 2021). Whereas Simon describes intentionally rational behaviors, March considers them as a step towards a more complex conception. For him, reason and unreason, rational and irrational are inseparable from human behavior. The

decision-maker in our organizations follows a consequentialist logic as well as conforms to a role, acting out of passion as well as calculation.

We will try to propose here a global perspective offered by his work on the concept of organization, which he constantly tried to understand in its evolution, transformation and adaptation to the world around us. In this process of adaptation of our organizations, March looks at the decision-making processes, how they function and transform themselves (organizational change) and how they seek to distinguish themselves through creativity. We will then discuss the future perspectives of March's work and the lessons that can be learned from a life dedicated to research by a workaholic.

THE WORK OF MARCH: DECISION MAKING, REASON AND MADNESS IN ORGANIZATIONS

"To keep organizations open to exploration, it is necessary to supplement their orderly and rational functioning with a dose of 'disorder' and/or 'poetry' to allow individuals to explore new behaviors for which they do not yet have a rational justification, without being immediately called to order." (J.G. March, extracted from Lambert 1998)

In his work, March proposes that we view decision-making processes not in terms of performativity and strong rationality, but as a deeply human process based on experience and intuition and often constrained by roles.

#### *The role of experience*

Throughout March's intellectual journey, experimentation appears essential. Many of the notions he develops in his work have originate in the heart of lived or observed experiences. They gradually become the researcher's obsessions and provide the breeding ground for his many contributions. This is true for the concept of bounded rationality proposed with Simon, which was initially based on the lessons of an experiment involving local public decision-makers. The importance of time in the structuring of decision-making processes, for example, stems from his fascination with the learning techniques used by gamblers on slot machines in Las Vegas (or Reno) to maximize their chances of winning. His intimate knowledge of how universities operate in terms of decision-making feeds much of the Garbage Can Model (Cohen – March – Olsen, 1972). His approach to innovation, or more

precisely to innovative organization, is no exception to the rule. It stems from the same astonishment at the social behaviors identified here and there, which provide him with fertile intuitions that things do not happen as models and theories have predicted.

While experiential learning theories assume that experiences are discarded because of forgetfulness (Argote, 1999; Argote - Greve, 2007; Baum & Ingram, 1998), some researchers argue that early occurrences can serve as cognitive blindness by limiting later experiences (Levinthal, 2003; Tripsas & Gavetti, 2000). This process of "cognitive imprinting" then produces a bias in experiential learning that partly explains the appearance of behavioral inertia. In fact, experiential learning contains a strong natural tendency to approach problems according to what first attracts one's attention or what one sees during the first representation. Rhee (2010) makes the link between this learning and the Chinese idiom that says "first impressions are the strongest" (history of the Han dynasty). This laziness of thought of which Confucius speaks, finds an echo in March's (1991) conception of experiential learning, which he sees as incomplete, partial and based on a limited number of experiments.

March (1981) explains that the ability to adapt to a changing environment depends on the ability to make blocks of rationality and irresponsibility interact. In no case in his work does irresponsibility constitute a deliberate strategy on the part of the leader, but according to the author, it is naturally embedded in the anomalies of the organization, and in the interstices that escape the vindictiveness of rationality. In these folds of the organization, one finds a jumble of *slacks*, symbolic actions, ambiguity or even "loose" organizational links between individuals, leaving room for initiative, and sometimes even improvisation.

March explains the need to maintain a dialogue between rational and programmed strategies with irresponsible and unrealistic options. If there is one text that sums up the richness of our author's developments, the audacity that it often conveys in its reasoning, the rootedness in the world of business and the realism it contains, the false lightness of the concepts through the choice of words that designate them, we cannot end this dive into the analysis of March's work without evoking what is undoubtedly the freest of his contributions: the technology of foolishness (March, 1971). One would almost think that he wrote this as a joke, and yet...

He lays the foundations of his thought or his obsessions as a researcher, if one prefers. March feels that the standard models that he calmly learned in university lecture halls, and that are proposed in most scientific publications, lack the sudden impulse necessary to the understanding of human activity. The intelligence contained in these models seems to him to be far removed from the way in which decisions are made in organizations. He is well aware that the experience we have in our organizations does not reflect what theories say. The world is simplified to enter the ideals of science. March takes obvious, but not provocative, pleasure in making it more complex. On this level, our monk of knowledge knows that he is, like any other researcher, the link of a humanity that above all, produces knowledge and not solutions.

Values in companies are built through experience more than through calculation and optimization. The behavior of decision-makers is guided by the roles in which they feel invested, within the organizations, more than by their personal psychology. Organizations produce solutions that look for problems. Individuals need to act before thinking because most of the time they discover their preferences after acting. As March (1994) explains, the self-resulting from leaders' actions is an opportunity to discover their own aspirations and values. This can be called *self-knowledge* (Patriotta, 2019). This idea is pursued in research on different forms of rationality in managerial decisions in the form of exploratory rationalities based on cases studies (Lambert - Romelaer, 2001). It finds attractive extensions in finance with recent work proposing a *quantum theory* of decision, where preferences are not known in advance, but are revealed by the act of choosing (Swirn, 2009; Le Courtois - Walter, 2016).

#### The role of intuition

In his reflection on decision making under ambiguity, March returns to the common ground of managerial approaches and the economic analyses that precede them. Where intuition has been banished from decision-making, he proposes to rehabilitate it. Thus, by catching a glimpse of other possible actions, it enriches creativity by going in search of solutions that are outside of acceptable patterns. Hypocrisy is excluded from organizational mechanisms. He sometimes considers it useful by affirming that a bad man with good intentions can be a man who experiences the possibility of becoming good. Memory is praised in organizations. He thinks it is equally important to forget. In line with his thinking, recent work (Hafsi and Lambert 2013; Lambert 2013) on forgetting in our organizations as a key strategic variable,

shows that the ability to unlearn is just as important as learning. Theory is considered to be the result of a purely scientific approach, emphasizing actions and the analysis of consequences. It proposes an alternative theory, based on experience that is strongly based on the divergent and subjective interpretation of the organization's actors. Co-founder with March of the SCANCOR laboratory in Stanford, Brunsson (1985) develops a similar idea through the notion of irrational organizations where actions are not necessarily related to the choices made. The topicality of such a perspective is surprising, both in the public and private domains of our democratic institutions. For Brunsson, the act of choosing does not necessarily precede every action. Analyzing several famous CEOs, including Jack Welch (CEO of GE), Segal & Bruce (2017) show that he essentially acted during his long career in the company without being sure about the decisions he made; he reacted far from any management theory, but by pure intuition.

#### Appropriation of roles

In other words, decisions follow role-constrained logics rather than rational logics of a consequentialist nature. His work at the institutional level is similar to that developed by March-Olsen (1989) in the sense that the preferences that guide choices are very often formed as a result of the actions undertaken. March (1991, 1997, and with Schultz - Zhou in 2000) have the opportunity to develop this aspect on the level of individual decisions in companies by showing in particular that the rationality of managers is very often constrained by the roles they are invested in or feel invested in (logic of appropriation). This source of ambiguity leads some economic actors to take big risks in the companies that employ them, for example, which is totally at odds with their individual attitudes to risk. An author such as Zhou (1997, and with March - Schultz in 2000) makes this his main argument to explain the subtlety of decision-making in organizations. For him, social institutions which pre-exist decisions such as family, school systems, church and later companies, constitute a social fabric which conditions decisions. They follow roles by making them their own rather than a pure logic of optimization. Managers take risks because they think that is what is expected of them. Yet their personal psychology would naturally lead them to be risk adverse (March 1991a and 1994). In the behavioral approach to the firm (Cyert-March, 63), the authors add the overconfidence of managers or the fact that they sometimes act under the pressure of dominant coalitions. These coalitions of managers or stakeholders create pressure groups

whose rationality is difficult to anticipate at the end of the day and place companies in situations of great uncertainty.

#### FUNCTIONING OF ORGANIZATION

March's work on organization reveals two essential determinants of organizational functioning: organizational slacks or room for maneuver and symbolic actions.

#### The role of organizational slacks

Organizational slacks have often been associated with the idea of excess resources that can be dedicated to original tasks such as technology observation or the circulation of ideas across organizational boundaries. This vision has led to the function of a "Gate-Keeper" role located outside the organization chart and hierarchy in order to foster innovation through the free circulation of ideas. In this case, the slack protects the individual or group from formal control of the organization by allowing them to escape outside the hierarchy with either personal or professional intents. The first definition stems from the collaboration with Cyert, which led to the proposal of a behavioral theory of the firm that notably distances itself from the standard economic approach (Cyert and March, 1992). In an equilibrium mode of economic representation, the resources distributed by the firm to meet the necessary level of demand, are assumed to be managed as precisely as possible. To keep them in the firm, a coalition of members is achieved by providing a minimal level of salary. A balance is then struck between the resources available in the organization and the payments required for the enterprise to function well. From this perspective, there is no organizational slack in breaking the economic balance by overpaying coalition members within the organization. In their modeling of the firm's behavior, the authors take issue with this "lean" version of the firm, which is consistent with the principles of Lean Management today (Jones and Womack, 1996). Indeed, they observe that to keep shareholders loyal, dividends are often paid out beyond what is necessary. Sometimes prices are maintained lower than what allows buyers to preserve their purchasing power, Furthermore, managers are provided with luxurious benefits and services exceeding what would be required to retain them. These observations written in the 1960s take on a special appeal today with the hunt for golden parachutes and other financial magnanimity. While some manifestations of these slacks are remarkable, Cyert and March (1992) consider them to be part of the banal practices of organizational phenomenon. Any member of the organization is likely to perceive this

largesse, starting with full-time staff. For them, the interest does not lie in focusing on pay differentials, but in making them aware of their indispensable nature to enable the firm to negotiate a radical strategic shift in order to adapt to a new environment. They are all organizational attributes to innovation. In environments that are becoming less favorable, these slacks represent a real guarantee of adaptation and change. According to Cyert and March, they bring both stability and adaptability to the company in two ways:

- by absorbing excessive resources in good times, they delay upward adjustments to the level of aspiration that the company is seeking to achieve;
- by providing a reservoir of easily mobilized resources in unfavorable periods, they make it possible to maintain or achieve a sufficient level of aspiration.

From a management point of view, slacks act outside of any strategic will. Most of the time, the authors tell us that companies are unaware of this. The nature of the change that is supported by this model corresponds to the search for new solutions in response to a problem that the company faces. The role of slacks is less clear if they are technologically driven innovations offering new solutions to the market (Mansfield, 1961). Today we know that the two types coexist.

More recently, in a reflection on the adaptability of organizations conducted with Levinthal (Levinthal and March, 1981), the contours of the concept became more precise and operational. Organizational slacks were defined as the difference between an organization's potential performance and its actual performance. This potential for the creation of value for the firm is close to Tobin's Q (Market Value over Book Value of Assets) or Marris' ratio, both defined in the field of finance and reflecting the gap between the firm's future performance and its past performance. Slacks reflect the fact that energy or resources that should have been dedicated to the pursuit of the organization's standard objectives are going to be used for something else. Examples include obvious inefficiencies in equipment that has been over-designed, over-qualified staff, undiscovered improvements in current equipment, or management relaxation of controls. Obviously, not all of these elements are justified in these terms in the company at the time when they are going to act. However, they contribute effectively to the company's adaptation and innovation. During a passage in his reflection on organizational change (March, 1981), he brings out an interesting category of slack. In it, the author clearly expresses his interactionist conception of the organization, that is to say, a phenomenon resulting essentially from the interaction of its members and not a

Porter-type configuration, well-ordered and implementing the strategy decided upon at the top. Throughout his work, March appears very optimistic about the organization's capacity to adapt and be creative. He does not think that it is as rigid as it is sometimes described, nor that its members offer so much resistance to change. While it is true that organizations sometimes ignore instructions, it is also true that sometimes from time to time, they carry them out with far more force than is expected. The slack here is not the unexpected orientation of the leeway that produces increased creativity, but the fact that some people surpass themselves in order to achieve the organization's objectives (March, 1981, p. 564). This exceeding can notably be due to the symbolic dimension of the actions undertaken, which sometimes pushes individuals to transcend themselves.

#### Symbolic reasoning

The reflection of the Danish philosopher, Kierkegaard, deeply affects March's thinking, especially his justification of Christian faith. In his time, this thinker fought against the vision of Christianity as an intellectual doctrine. If many French believers and philosophers of the Enlightenment tried to rationally demonstrate the existence of God, Kierkegaard asserted that all religion can only be justified by faith. Under no circumstances can religion be justified by its ethical consequences. According to Kierkegaard, those who seek to be justified in this way are not. This idea is found in the conclusion of March's book on organizational intelligence (March, 1999). For him: "We can say a similar thing about university education and scholarship. They only become truly worthy of their names when they are embraced as arbitrary matters of faith, not as matters of usefulness. Higher education is a vision, not a calculation" He also takes up the figure of Don Quixote, a wandering knight, totally disinterested in any kind of recognition and whose madness remains unjustified, as an emblematic figure of leadership. In a similar dynamic, the author considers that knowledge cannot be justified by its consequences, but only for the strong symbolic dimension it conveys. This dimension is that it consecrates our existence and affirms our humanity. Research, and the series of knowledge that it conveys, is no longer seen as an investment, but represents a true legacy for March. This original approach of explaining the characteristics of leadership by drawing on emblematic figures contained in literary works rather than looking for them in companies is similar to the work carried out by Bhabha (2007), who in order to understand postcolonial hybridity, worked on the literary

accounts of authors from immigration (Salman Rushdie or Toni Morrison), which better than anything else, testifies to this postcolonial heritage. The approach is risky, but highly productive, and March has even made a film about it for elite leadership training at Stanford. The analysis in some MBA classes of figures like Don Quixote, Shakespeare's Othello or the hero of Tolstoy's *War and Peace* is rich in leadership experiences and symbolic lives.

This perspective is essential for a proper understanding of the original and rich developments that this author offers us. He often began his lectures at the Stanford Business School, the Mecca of utilitarianism of managerial ideas that are taught, by explaining to his students that it was not up to him to prove the relevance of his remarks. Already in his reflections on the behavioral firm alongside Cyert (Cyert and March, 1963 and 1992), the commercial firm is not only an instrument for manufacturing goods and services, it also appears as a temple and a collection of sacred rituals. This part of his research on business behavior initiated with Cyert in 1963, definitely constitutes the most accomplished part of the renewal of the vision of the company proposed by the Carnegie School (Garvetti - Greve - Levinthal, 2012). Even today its influence on the thinkers in the field remains considerable (Gavetti - Levinthal, 2004; Argote - Greve, 2007; Gavetti et al., 2007). While a microeconomic vision of the company based on the market price of products and the quantities produced dominates, the authors put forward the process that takes place inside the "black box" and particularly the decision-making processes. They definitively turn their backs on an economic vision focused on the production of large aggregates, to look at the decision-making mechanisms involving the individual and the group. Alongside Simon who comes from cybernetic science, the richness of March's background allows him to approach phenomena exclusively reserved for economists with a sociology and especially psychology vision. The rational view of the firm supported by the standard economic theory of the firm and axiomatized by Von-Neuman Morgenstern (1947) and Savage (1954), with the work of M&S, finds a more natural perspective, combining logic and psychology or intelligence and intuition. They take the place of decision-making processes of choice carried out in limited spaces where the degree of satisfaction is more often mobilized than optimization. Cristofaro (2017) provides a very detailed analysis of bounded rationality focused on the work of M&S (1958). He shows the way in which this concept is still alive in management work with extensions such as prospect-theory (Kahneman-Tversky, 1979) or with the contribution of neurosciences in management which introduces perception bias. Cyert & March tell us that in order to understand the functioning of our organizations, it is necessary to take into account the behavior of actors with bounded rationality, adaptive processes, and the existence of unresolved conflicts, as well as decisions that remain ambiguous. In the behavioral theory of the firm, simple solutions are drawn from the reservoir of the company's routines and practices, thus avoiding the use of foresight. We know that the role of foresight is essential for innovation dynamics. In this respect, Cyert & March go further than the proposals of the Carnegie School initiated by Simon in terms of anticipating the future. Instead of long-term strategic anticipation, the authors argue that the company adopts a bounded rationality behavior based on short-term reactions and feedback. Organizational expectations are inaccurate and are often limited to a local search for solutions.

Nonetheless, as a good follower of Kierkegaard's philosophy, March goes even further and thinks that life is not primarily a choice, but an interpretation. The same applies to individuals' involvement in organizations. If they invest so much in organizations, it is because the symbols, myths and rituals that surround their involvement make them valuable and indispensable.

March explains in various passages of his research that choices and decision-making affect certain aspects of modern corporate culture. This is the case, for example, with the notion of change. According to the values of modern organizations the ability to adapt to a changing environment is a strategic option whose persuasive power for managers is often their main reason for being. The role of the manager is to enable the company to adapt in a changing world. Change represents a sufficiently powerful symbolic value for any decision and associated choices to dominate other decision factors. For engineers, doctors or managers, the symbolic elaboration of change processes becomes as important, if not more important than the results that comes from them. The set of symbolic actions attached to the process of change is an essential driver of innovation in companies. Thus, the perception that individuals have of their actions through the distorting mirror of symbols and myths, counts more than their actual impact.

#### SOURCES OF ORGANIZATIONAL CHANGE

According to March, the adaptation to change of organizations will call for learning, which far from being perfect, remains ambiguous and pushes the company to implement risky exploration processes seeking innovation. Where standard organizational management and

managerial efforts seek to suppress these determinants for improving organizational effectiveness, March takes the opposite view.

#### Ambiguity in experience

Individuals in organizations change their understanding through their experiences and interpretations, even if their learning is ambiguous. According to March, this ambivalent organizational learning improves the adaptability of the organization, and thus the capacity to innovate, adapt and create. Understanding the factors that affect learning is therefore essential for him in order to better apprehend the way in which an organization carries out its choices. Ambiguity is essential in organization because it evokes futures that leaders could not have imagined.

According to March and Olsen (1975), organizational intelligence, like individual intelligence, is the result of two radically different processes. The first one is based on a rational calculation that makes it possible to assign a consequence to a decision, with the search for decisions that prove to be optimal. Most of the developments in decision theory are based on this type of process, which optimizes choices and creates knowledge. However, there is a second source of knowledge creation according to the authors. It is essentially based on the experience that the members of the organization make through their actions, their communication, their exchanges of points of view and their presuppositions. Indeed, the individual draws on the feedback of past experiences to make choices between alternatives in the present. This second source of knowledge creation does not exclude, but complements the first one. The book of M&S already showed, through the concept of bounded rationality, that there was no superhuman organization at the service of a strong rationality where all the alternatives of choice would be known in advance, where the consequence of each of them would be apprehensible in all circumstances, moreover, with individual and collective preferences remaining stable over time (Lambert and Romelaer, 2001). Rather, bounded rationality reveals organizations that are intentionally rational, but act on the basis of incomplete information and do not know the full range of choice opportunities. In his work with Olsen, organizations adapt their behavior on the basis of experiences that are based on interpretations. In this reflection on ambiguity, it is then appropriate to ask how individuals and organizations make sense of their experiences and how they modify their behavior based on the interpretation they give to these experiences.

Here again, March addresses the problem of knowledge creation from an angle that few authors have explored. Contrary to the perspective of Argyris and Schön (1978), who propose the notions of learning loops (single, double or deuteronomic), March considers that learning is above all "nested" in experience rather than in the announced paradigm shifts. Argyris and Schön's approach, widely shared by economics and management sciences, considers that a paradigm shift is imposed on everyone in the organization, and in a rather harmonious and consensual way. For March, this harmony does not exist in organizations. One thing may seem smart to one part of the organization and not to another. Decisions are intelligent if you take a long-term perspective and can be absurd in the short term. Here we find March's resolutely interactionist vision, which considers decisions as the result of interactions between individuals and groups whose preferences are not necessarily harmonious. The ambiguity that reigns in organizations is one of the keys that allow us to glimpse this alternative view, and even build the premises of a new theory of learning, where myths, fiction, legends, folklore and illusions play their roles in the actions and creativity that sometimes emerge. At the heart of this theory is the human experience and not incantatory paradigm shifts. Simon (1997) speaks of decisions mobilizing reason rather than rational decisions. Nonaka and Takeuchi (1995) propose a model of knowledge creation in business based on transfer, where the tacit dimension and routine elaboration take an essential place. Experience is at the heart of learning and particularly that of others because very often (March, 1981), the innovator transfers and adapts external solutions. Contrary to a vision oriented towards routines, historical dependence and strategic objectives, March goes deeper into the foundations of a new theory of learning in a publication with Levitt (Levitt and March, 1988). This theory puts forward more complex forms of organizational learning based on experience between individuals whose interdependent actions (mutually dependent ecological structures) seek to simultaneously adapt to the behavior of other organizations in an environment where change is primarily endogenous. These developments allow the emergence of fields of management research, which three decades later, still animate our debates on organization as a privileged place for learning. The field of the organizational learning research program and the resource-based view of the company are largely inspired by them, considering organizational learning as "encoding inferences from history into routines that guide behavior" (Levitt and March, p. 320). Concerning the issue of building routines in an adaptive dynamic, Dosi, Nelson & Winter (2000) speak of

building blocks of capability, and decision rules are recognized as central to the development of the concept of dynamic capabilities (Teece, 2007; Felin et al., 2012).

March – Olsen (1975) develop four forms of ambiguity, highlighting incomplete learning cycles. First, role-constrained learning complicates the translation of individual beliefs into individual action. Superstitious forms of learning then disconnect the actions taken from the organization of responses provided by the environment. These are the interpretations of the consequences of the choices made by the organization that play a role in this case. The organization thinks that it influences its environment in some way when it does not. The third form of ambiguity, known as audience ambiguity, appears when individuals learn, but the organization does not act accordingly, the common presuppositions being, for example, too entrenched to be questioned. The last form, simply called ambiguity, is probably the most frequently described in cases of learning in complex situations. It occurs when the cause and effect relationship is not clearly established between the responses of the environment and the lessons learned by individuals within the organization. Learning takes place, but is distorted by misunderstandings of the problems. March and Olsen postulate that even if the presence of ambiguity does not improve the functioning of the organization, the experience provided generates learning. This learning differs from learning that takes place when there is no ambiguity, when all views converge, when everyone adheres to the company's objectives and finds a harmonious place within them. Learning in situations of ambiguity then strongly depends on organizational factors such as the trust or mistrust of individuals among themselves, or the way they feel integrated or alienated within the company. Depending on the perspective chosen or the condition experienced by the individual, learning from the same experience may diverge completely. In a contemporary reflection on this first contribution on ambiguity, March (1978) asserts that preferences are rarely clearly defined in accordance with the premises of strong rationality, but appear ambiguous, imprecise, inconsistent or even unstable over time. The result is a learning process for the actors in the organization that is based on these ambiguous experiences. These widen the scope of the consequences of the actions produced by the organization on the basis of decision-making processes. Reliability is certainly weakened, but the resulting creativity can be multiplied.

Exploration in organizations: glory and pitfalls of innovation

While many authors and numerous studies have praised innovation as a strategic option through which the salvation of the company (through performance) comes, few studies have looked in depth at the organizational prerequisites for creativity. March's work allows us to better understand the complex phenomenon of innovation, as well as the handicaps that such a dynamic can entail for the organization that implements it. Early on, he believes that most new ideas claiming to be innovative, turn out to be bad ideas and that it is very difficult to separate the good from the bad. Like the Nietzschean character Zarathustra quoted by Bowden (2021, p. 11) who says 'Man must grow better and more evil,' March reminds us that in any change we must take the good as well as the bad. His conception of morality in management is inspired by Nietzsche (1918) as it coexists with conscience and self-interest. "One of the most effective ways of maintaining morality is through the remorse exhibited and felt at immoral action," he writes about decisions taken under ambiguity (March, 1988, p.287). In this respect he is in line with Foucault's (1961) attack on positivism (on the influence of Nietzsche on Foucault's thinking see Bowden, 2021). For March as for Foucault, the world is an interpretation made of ambiguous oppositions between moral and immoral actions, good and bad ideas, morality and self-interest, exploitation of routines and exploration of new ways. All his thought is crossed by these oppositions.

Certainly, he is the first to recognize the need to infuse creativity and innovation for the survival of our organizations. However, his work in this area is a far cry from the age-old strategic recipes of "ever more innovation" for "ever more performance". As if every company, every organization was ultimately dedicated to producing creativity and generating innovation. Few companies succeed in making the transition from invention to innovation that becomes a commercial success on the market. Socialized invention as defined by Maunoury (1968) is a high-risk activity. Even fewer companies achieve true innovation success, which cannot be limited to a simple short-term profit, but should represent a source of continuous growth over the long term (Tidd, Bessant and Pavitt, 2006). Turning to short-term objectives with bounded rationality, Cyert & March (1963) argue, for example, that companies favor imitating the solutions of others by adapting them if necessary, rather than developing an internal but riskier solution. This is undoubtedly less glorious than a first mover, but more pragmatic. In a collective work on the links between technology and organizations (Goodman and Sproull, 1990), March and Sproull highlight the two opposing attitudes towards innovation and, more specifically, its failures. In this

reflection on the links between innovation and technology, the authors first present the perspective of technology enthusiasts, who tend to attribute the slow adoption of innovation to irrational forms of resistance. They then recount the perspective of skeptics, who tend to focus on the fact that the new technology only weakly responds to identified needs or even addresses a problem that does not exist. Solutions exist, or have been invented, but they are often in search of problems. This theme dear to March is found at the heart of the Garbage Can Model (Cohen, March and Olsen, 1972), constituting one of the pillars of decision-making that he describes as organized anarchies. March asserts in a 1995 Vancouver conference at the Academy of Management, whose script he published the same year (March, 1995), that innovation can have disastrous consequences. Then for March, "organization are ambivalent toward imagination" (Patriotta, 2019).

Innovation is never approached head-on in March's work. There is no text in his work that studies it for itself, for example, through attempts to measure phenomenon economically, or through the reconstruction of stories or monographies of ex-post success stories. Nevertheless, the passages in which he addresses these questions are significant. Wilden et ali. (2019), for example, attribute authorship of the ideas on Open Innovation to the work of M&S (1958). The same position can be observed in a related field that March dealt with extensively in his work, that of rationality and decision-making. Rather than adding elements for reflection to the long list of works on the increasingly sophisticated way of evaluating the consequences of our decisions, he works on the contexts that lead to the adoption of certain forms of rationality.

March is convinced that organizations need innovation and creativity to survive, and more broadly, that we need new ideas in our lives to keep us from deadly boredom. The continuous flow of new ideas gives us hope for a better future. Nevertheless, the author warns about these strategies for change: "Most heretics are burned, not sanctified; most inventions prove worthless, not priceless. Most deviant organizations perish" (March, 1995, p. 438). Just as a doctor must warn of the risks associated with a treatment, "merchants" of innovation must warn of the risks of belonging to a creative organization and the financial consequences of failure. In what is probably his very first reflection on this question with his co-author Simon (M&S, 1958), innovation is approached from the perspective of a problem-solving process. Cybernetic design is obviously not far off, as innovation is seen as a stimulus that follows dissatisfaction from inside or outside the firm. Although the authors have little experience

with this phenomenon, which is beginning to become a real field of research, they have nevertheless already perceived the importance that organizational mechanisms play in facilitating innovation. The pressure of time and deadlines on innovators and the degree of clarity of objectives are already widely evoked as essential attributes for the success of such a program.

For March, innovation comes from exploration activities in companies. For Segal-Bruce (2017) who observe the behavior of famous managers, they remain outsiders in the inside of the organization. March defines exploration as follows: "Exploration includes things captured by terms such as search, variation, risk taking, experimentation, play, flexibility, discovery, innovation" (March 1991b). But a phenomenon of inhibition supports routine operating activities because "reason inhibits foolishness; learning and imitation inhibits experimentation" (March, 1991b, p. 74).

The following figure summarizes the backbone proposed by March, starting with individual decisions and moving towards change through the functioning of organizations. For March, an organizational structure is above all the result of the interactions that take place within it. It is never an objective configuration constraining the action representing the invisible hand of managers (e.g. the configurational vision of Chandler 1988), but a reality constructed by the actors who interact there. Secondly, change for March is initiated by perceptions of situations rather than by objective data. As Cristofaro (2017) shows, the role played by the interpretations of managers is already very present in bounded rationality. Obviously, perception will introduce biases that limit the rationality of top managers (Hambrick & Mason, 1984). This bias of perception will figure prominently in the work of Kahneman – Tversky (1979) in the Prospect Theory. They will be demonstrated in neurobiological studies (Mosca, 2000). These biases of cognition will enrich disciplinary fields such as neuroeconomics, neurofinance, and more recently neurostrategy (Cristofaro, 2017). For March, these subjective perceptions are based on ambiguous learning that brings creativity, and decision of exploration constantly challenged by short-term objectives that are more reassuring for top and middle management.

#### [Insert Figure]

#### DISCUSSION: MARCH'S TESTAMENT FOR THE 21<sup>ST</sup> CENTURY

March's goal has never been the constitution of a unified theory of organization. At the famous UCLA symposium organized by Koontz (1964), Simon's response, assumed by March, was scathing. For them, such an objective was precipitous because it was first necessary to explore the contours of the organizational phenomenon, which was still poorly understood, before hoping to make a science of it. Indeed, by focusing on the complexity of human behavior in organizations, M&S do not propose a theory of organization, but rather they build solid foundations for it because they are close to action. According to Burell & Morgan (1979) management and organization studies since Taylor and Mayo have formed four paradigms: functionlist, interpretivist radical, structuralist and radical humanist. But according to Jouillé (2018): These paradigms differ not on the nature of the ultimate substratum of organizational reality (stable, causally effective structures), but on where to locate that substratum and how to study it.' While the focus of the object of study differs, all remain locked in a performative paradigm. March's work cannot be identified with any of these paradigms, not least because it describes modes of reasoning that depart from any form of optimization, but also because it admits contradictions and ambiguous situations that are incompatible within a general theory. The developments in the Garbage Can model are significant in this respect. In the simulation to which this model gives rise (Cohen - March -Olsen, 1992), the notion of an organization's performance is called into question. Is it a question of responding to as many problems as possible over a given period of time, or is it a question of responding as quickly as possible to those that arise? The simulation shows that the number of problems solved can be increased, but this will be at the expense of decision time. Similarly, an organization can reduce problem latency (the time during which the problem is posed, but not yet processed), but it will do so at the expense of the number of problems solved. Both performances are legitimate and depend on the nature of the organizations involved. This result can be related to the one obtained by Riad (2014), who in a historical perspective, shows that the moral characteristics of leaders are not stable over time. For example, the opulence of leaders does not have the same meaning today as it did in Ancient history. Thus, the fact that in the Garbage Can model, the very notion of performance differs from one organization to another, making any normative temptation of a general theory inoperative.

Some researchers are concerned about the lack of empirical validation of the claims made in M&S Organizations (Anderson & Lemken, 2019). For Bromiley et al. (2019), the contributions of M&S have been underestimated or ignored in management studies. In the second Handbook of Organization Studies (1996) following the one coordinated by March thirty years earlier (March, 1965), not only is a tiny fraction of his work commented on, but his contribution is reduced to a neo-rationalist decision-making theory (Reed, 1996). Focusing also on the Organizations of M&S, a more balanced tribute is paid to him by Weick (2017) who considers that his work stands on the shoulders of giants or constitutes a touchstone on which to build a theory of organization. He notes that bounded rationality gives rise to alternative rationalities that allow intuitive actions with ambiguous consequences and often built on incomplete information to be taken into account in organizations. For him, a process of reification is at work which emphasizes the perception of individuals rather than their actual performance. While accepting the importance of developments around bounded rationality to better understand human reasoning, I tend to agree with Cristofaro (2017) that a unified theory remains a utopia "..reaching a general theory of rationality that is able to determine all the unique implications of individual and collective behaviors, is at least utopian; in fact, the totality of variables and their interrelated mechanisms that govern our reasoning are still unknown." (p.185).

At the end of this investigation, I would add that the strength of what March leaves us with is that his vision of the organization celebrates the life that animates it. Far from any ideology or normative vision, he naturally recognizes the ambiguities, the part played by roles, the flamboyant behaviors (such as Don Quixote or Othello) far from a rational optimistic conception. In March's view, organizational actors often decide without understanding the choice procedures (Garbage Can), individuals sometimes invest themselves well beyond what is expected of them (organizational slack) and may decide against their own value (role-constrained decisions). Centered on the realization of the individual rather than on the collective, this conception of the organization is undoubtedly the one that is the most adaptable to the future evolution of our companies, but the least ductile for forging a theory.

March's ideas are often against the tide, or even provocative, with regard to management paradigms and standards. They are often based on his intuitions, on the results of simulation

models or on the simple observation of cutting-edge literary figures. This is undoubtedly a weakness in terms of the scientific proof that must be provided for them to be seen as perfectly serious and beyond reproach. They should certainly be tested to give them the strength of conviction. This is not always simple, as shown, for example, by the very limited number of applications of the Garbage Can Model to this day (Romelaer - Huault 1996; Cusin 2007). The applications relate almost exclusively to case studies (see Romelaer, 1994) and have not given rise to direct statistical studies. It has been constructed as a model of reality based on case studies. More generally, while March's ideas remain modern and relevant (Gavetti - Greve - Levinthal - Ocasi, 2012), they now benefit from new developments in various fields such as psychology. Nevertheless, it is undoubtedly on the methodological level that progress has been strongest. If March's work, much of which is based on case studies, were subject to the methodological requirements of good qualitative research (Yin, 2008; Goffin et al., 2019), some arguments would probably be less successful. Indeed, Yin would in many passages require transparency of the empirical protocol. If we take March's contribution to the Garbage Can Model as an example, the case study dimension is barely sketched out at the beginning of the article (and yet a lot of field work on university governance has been done with his co-author, Mickael Cohen). In terms of case-study-based innovation research, Goffin et al. (2019) lay the groundwork for what should be unassailable academic research. With the criteria they propose in terms of research design, data collection and data analysis in particular, they point out that most research on this topic over the last two decades would no longer pass the threshold of editorial acceptability. Even so, we can also agree that with these requirements, many ideas and concepts would never have reached us. March (2005), using his sense of his own formulas, considers that a piece of writing often flows beyond its author by suggesting meanings to the reader that he did not foresee. The text thus escapes the author's control a bit like images suggested in a poem.

More generally, there is a wide and sometimes confusing variety of methodologies employed by March. They range from mathematical models, to econometric simulations, to pure speculation drawn from famous literary figures or great myths. This pluralism of methods (see the chapter on these methods in Weil's 2000 book) has been present in his work since his thesis where he already uses several econometric models to confirm a correlation. This is an obvious weakness of March's work, if we place it in the perspective of constructing a theory of management. However, this culture of interlocking methods also demonstrates the

infinite respect that this researcher has for human reasoning. In his supervision of doctoral research, March never imposed a method. He always left the choice of weapons open. But once chosen, he remained uncompromising about the rigor of the arguments used in coherence with one's choice. Travelling through the work of this author, or rubbing shoulders with him in the construction of academic research, always privileges creativity over the pretension of modeling our world. In search of some kind of academic recognition, March favored the emergence of new ideas in his work. This is undoubtedly his sense of play that he acquired throughout his experiences. It also privileges the understanding of the causal shades underlying particular phenomena that account for a complex reality compared to the proposal of general paradigms. If one accepts that in management science there is a multiplicity of methods referring to the opposition between Cartesian and experimental approaches, between positivism and constructivism, March's work is a perfect illustration of this. In management, a plumber can become a scientist. However, they never fall into the excesses of "blind technique, pure ideology, generalized sophistry and mutilating scientism" (Martinet, 1990).

A business school student discovering March's work could easily be disconcerted by the insufficiency of management methods proposed and by the lack of operationality of the concepts developed. The shortage of reassuring certainties may disturb a student when, like a doctor, one is looking at all the forms of pathology developed by an organism in transformation. In his teaching, March avoids the utilitarian temptation that often makes the reputation of these schools claiming to train the managers of tomorrow. Throughout his teaching involvement in these institutions, he has never considered a student as a consumer thirsting for directly operational managerial solutions. For March, neither consultants nor professors can claim to say what should be done because, unlike managers, they do not know the context of the decision. Therefore, when reading his work, students and young researchers will perhaps have the feeling of a greater lack of understanding of organizational phenomena. This is because for March, the social scientist must help to understand rather than trying to produce effective actions. Generating empirical knowledge is perhaps a modest vision of science compared to the objective of wanting to produce operational solutions or theoretical paradigms (Kuhn, 1970), but it is a necessary step in the construction of our social sciences.

March did not believe in the transposition of the scientific paradigm into the field of social sciences. He demonstrated this in his early research in the 1960s alongside Simon by defending the concept of bounded rationality. He confirmed his intention a little later with Cyert (1963-1992) by proposing a behavioral theory of the firm, i.e. a theory based on the observation of actors' behavior. Essentially, he could not conceive that at the social level our organizations are driven by well-controlled cause/effect relationships. His conception is closer to that of engineers who, in order to obtain a state in a system, simply specify the minimal conditions. The realization of a desired effect results from the implementation of sufficient conditions without claiming to master the interactions between the different parts of the system. In all his research, he tries to leave behind the positivist paradigm to go towards the real behavior of companies. As Segal-Bruce (2017) explain about the practices of Welch at GE, it is about imposing an ethics of authenticity instead of scientific management.

A complete reading of his work shows us that everything he has undertaken is dedicated to theories of adaptation. In doing so, he touches upon an essential problem of our human societies, which conditions their survival. Within this very broad framework, March was more specifically interested in the theories of the diffusion of experience, decision making, innovation and organizational change. In March's world, economic agents do not maximize profit or utility in comfortable time horizons where they take time for rational calculation and anticipatory foresight. For him, the reality of organizations is more rudimentary. It is made up of trial-and-error processes integrating behavioral variables where the attention of the agents in action is limited and where the absence of an optimization objective is explicit. This realism comes partly from the fact that organizations are, most of the time, confronted with very short decision time horizons where ambiguity is the order of the day rather than the control of cause/effect relationships.

But it is not enough to refer to bounded rationality or to mobilize the concept of trust in a model to follow March's ideas. Vigilance is necessary, and March himself was aware of the possible drifts resulting from an essentially "utilitarian" use of his research. Some economic research has, for example, has integrated the idea of bounded rationality, but it is rendered meaningless in models that are more rational than bounded. The same applies to the concept of trust, which in some developments of decision theories is reduced to a simple reputation

effect in repeated dynamic games. In order for this pragmatic and more natural than rational conception of science to endure, and for our much-needed troublemaker never to die, we must remain vigilant against these sterile utilitarian drifts.

This behavioral theory of the firm has already borne fruit by irrigating, in the decade following its publication, numerous fields of research such as the theories of teams (Marschak - Radner, 1972), of incremental adaptation (Di Maggio Powell, 1983), of transaction costs (Williamson) or of agency theory (Fama, 1980). The adoption of a deliberately normative approach to the firm, as close as possible to real behavior, is what, in our opinion, gives March's research its strength and the reason for its continued relevance.

#### **CONCLUSION**

It is not difficult to show that March's work is in line with a postmodern intellectual approach (Donaldson, 1996), given the organizational functioning he gives us to see. It is full of reasoning that welcomes complexity and ambiguity, sources of interpretations of a social object that looks more like a construction than an objective reality. In this social object, individuals circulate who are animated as much by reason as by madness, attitudes that are far removed from a ideal phantasized world of normative behaviors with an essentially performative purpose.

Our contribution proposes a logic that the author did not necessarily follow linearly during the course of his thought over several decades and which would translate his contributions at each stage of what we characterize as the organizational phenomenon. This path starts from the individual who is at the origin of the action and the decision. What March says in various passages of his writings is very different from the image given by the economic notion of homo economicus and has its roots in the work initiated with Simon, more particularly in the GSIA experience which gave rise to the notion of bounded rationality. This concept, which Simon constantly enriched throughout his academic research by giving it dimensions that were further and further removed from standard performativity, was a useful stepping stone for March to go even further by incorporating organizational dimensions relating to the functioning of structures and their desire for change. By delving into the logics of exploration that are at work in organizational structures, he has brought out concepts that have gone largely unnoticed and that reinforce the postmodern roots of March's thinking. These central concepts in organizations push their mode of operation far beyond

normative representations by showing the importance of organizational slack resources, references to myths in action, ambiguity of knowledge and the great leap into the void that the innovation process sometimes involves. The model we propose is obviously not a theory. It is in keeping with the idea of presenting a compass that will allow us to better orient ourselves in March's work and in this social concept of organization that has been the object of all his attention.

Thus, March cannot be reduced to M&S. The use of literary figures allows him to detach himself from neo-rationalist forms of decision making that are always in search of coherence and decisions that appeal to reason. According to Jouillé (2018), structural-functional-Positivism frameworks tend towards performativity, but if we accept that social phenomena are non-predictable, they cannot be finally performative. As in real life, leaders can make decisions far removed from the consequentialist concern with maximizing profits or seeking rewards for action in the form of utility. Characters in novels or plays better reflect this human part of the decision where the pleasure of daily action simply allows us to assert our social identity.

March is difficult to grasp in his entirety because he is on all fronts of the organizational phenomenon, from decision making, to learning and change, to conflict management. The strength of what he highlights is that he has tackled all the stages of the organizational dynamics of the microeconomic decision-making process, its routine functioning, its transformation and innovation. One comes away from this dive into the world of March with the feeling that one has a better understanding of these organizations because the decisions that are made and the behavior that is observed are in line with what one perceives of reality. Individuals are rational, but sometimes act without calculation in accordance with an ideal. Leadership is a balancing act between these opposing elements according to March (Patriotta, 2019). They have values they believe in, but the theatre of decision-making forces them to play roles that deviate from them. March honored life too much not to try to keep science from straying away from it.

In this article we have chosen not to confine March, as is often the case, to his early collaboration with Simon through his participation in the GSIA. A broader look at March's work clearly reveals a distancing from this successful offensive against the proponents of strong economic rationality (Von Neuman - Morgenstern 1947; Savage 1954) and which led to the concept of Bounded Rationality. In various works after M&S (1958), March went

beyond the framework of bounded rationality, which had certainly broadened what could be considered rational, but remained clearly inscribed in a performative perspective of management whose intention is to control decisions and predict their results. With other authors with whom he associated, he explored different forms of rationality, such as when decisions are made as role based (March - Olsen, 1975). In the Garbage Can model, he broke with the performative objective to describe indeterminate decision behavior based on logics of temporal proximity with past decisions and on processes of exploration by trial and error (Cohen - March - Olsen, 1972). In so doing, he renders impossible any prospect of a unified theory of management, a chimera in which he never believed. For he admits that organizational phenomena are neither predictable, nor therefore determined in advance (Joullié, 2018). If the actors in the organization lose the idea of optimizing in the Garbage Can, they gain a freedom of action from experiential learning. This is in line with the managerial proposals outlined by Peter Drucker (1986) who proposes managerial freedom instead of a management theory.

Although it does not seek to achieve a theory of management, March's work is nonetheless a major guide to understanding managerial decisions and organizational behavior. His developments on the role played by experience, intuition, resource slacks and myths are all compasses for understanding the human reasoning behind decisions. In order to identify his contributions, we have divided March's work into three parts, from individual decisions to the collective dimension of organizational functioning and its reinvention. We first analyzed his contributions to the premises of decision making, highlighting the influence of experimentation on learning, intuition in the modes of reasoning and the logic of appropriation through roles. Secondly, through the interactions of individuals in organizations, March's various works reveal two dimensions influencing the functioning of the organization. On the one hand, these are the generation of slack resources that accelerate certain processes and orientate behavior (such as the primacy of business over engineering in certain situations), and on the other hand, the inspiring role of symbolic actions for the actors, making it possible, for example, to obtain support for change. Finally, faced with the need to transform themselves, organizations will, for March, go through processes suggested by ambiguous knowledge and through the highly risky exploration of unknown territories by seeking innovation and creativity. It should be noted that in this attempt to articulate March's contributions to management, neither the interactions within organizations, nor the

perception of change are predetermined. They appear spontaneously in the course of action and are the result of it. March's work is rooted in postmodernity because it describes a management where reason and foolishness coexist (March, 1981), free from any unifying theory that is necessarily false and simplifying (Soullié, 2018).

One hundred years after its inception, the management literature is still far from a unified theory of the organization or management. However, we can say without too much confusion that in a large number of his works, he has laid a solid foundation (Weick, 2017) for understanding the organizational determinants that would enable such a change to be envisaged without too much disruption. March's work promises us many extensions. Today, for example, we may have more need for a inter-firm behavioral theory (Garvetti et al., 2012) given the evolution of business networks and the openness of innovation. But in this perspective, he leaves us the accuracy and attention necessary to produce concepts that do not betray the shortcomings of reality.

The limitation of our work is that it remains essentially speculative as to its influence on future research. Recent concepts such as the notion of effectuation (Sarasvathy, 2001) in entrepreneurship seem very promising to characterize original, but reason-based managerial behavior as stated by Simon (1997). However, historical hindsight may not be sufficient to measure the robustness of the concept. As we have said, March is very inspiring, he is much quoted by researchers and a theoretical filiation of new approaches should be done. We have not been able to do this here.

March wrote about organization, "There is a bit of magic in the world and madness in human beings yet organization is one of the many things that fail to produce miracles" (March, 1971). It is undoubtedly in his poetry books he wrote that he found the beauty he was looking for, more than in the academic concepts where beauty is often lacking. What fascinates March about the beauty produced in poetry is that it says more than the poet knows. The same should be true of the vision produced by leaders. If March seeks eternity in his poetry and accepts an expiration date for the concepts he has highlighted in his research, we believe that his traces will be lasting because they are close to real behaviors. By pointing out the dark side of our organizational behavior in our decision-making, in our learning and in our efforts to innovate, he does not exclude consequentialist. However, he reminds us that rule-

based decisions and ambiguous learning are as much a part of our behavior as are more compliant forms.

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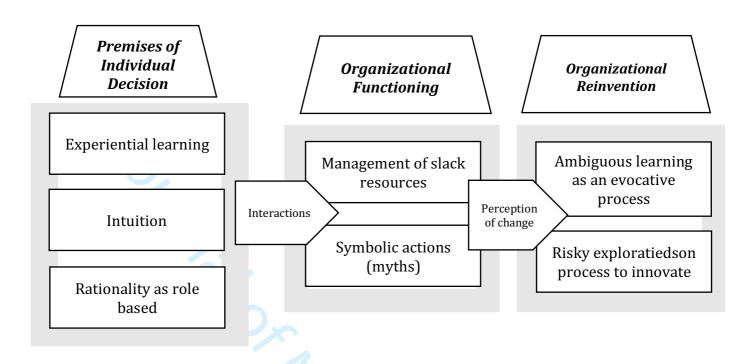


Figure : Guides for organizational functioning and adaptation according to March (source: the author)