March'ing towards "a behavioral theory of the firm"

James G. March and the early evolution of behavioral organization theory

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Abstract *While the history of modern ideas in business education in general, and organization theory and organizational economics in particular, has several different intellectual roots, two books in particular were influential in initiating the field that is now broadly recognized as behavioral theories of organizations:* A Behavioral Theory of the Firm, *written by Richard Cyert and James G. March; and* Organizations, *written by Herbert Simon and James March. These two books set the stage for several subsequent developments in organization and management theory including research in learning, strategic management, and organizational routines. The behavioral view of the firm was also important to modern developments such as evolutionary theory and transaction cost economics. This paper examines part of this history and development, focusing in particular on the contributions of March.*

1. Introduction

James G. March (born 1928) received his PhD in Political Science from Yale University in 1953 and went to Carnegie Mellon University (then Carnegie Tech) where he contributed to the origins of modern organization and management theory, most significantly through his co-authorship of the two classic books, *Organizations* (March and Simon, 1958) and *A Behavioral Theory of the Firm* (Cyert and March, 1963).

March stayed at Carnegie until 1964 where he went to Irvine to become a professor of psychology and sociology and the dean of the School of Social Sciences at the University of California, Irvine. He began there (with Michael Cohen) a study of leadership and ambiguity in the context of American college presidency (Cyert and March, 1963). This book discusses the loose coupling between decision-making problems and solutions to these problems and gives reasons for leaders to encourage ambiguity, rather than prediction and control. The idea that choice is fundamentally ambiguous is a central theme to ideas about "Garbage can decision processes" (Cohen

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et al., 1972) which also emphasize the temporal sorting of problems and solutions. The general implications of such ideas were explored with Olsen in the book *Ambiguity and Choice in Organizations* (March and Olsen, 1976), a collaboration that later led to two books exploring an institutional and organizational perspective on politics and governance. This essay takes discusses some of March's ideas and contributions, and indicates its significance for the evolution of management thought.

Viewed in a historical context, the work of March represents a continuation of the behavioral economic program developed at Carnegie in the 1950s and 1960s, a tradition deeply influenced by roots in political science. March's formal education was in political science, as was the education of Herbert A. Simon, although they both diverged later from their early territories. March's central research question was in many ways the same as the ones that guided Herbert A. Simon and Richard Cyert: "What is the proper way to understand human action and decision making?", and, more specifically, "How can theories rationality and intelligence be aligned with the facts of the world?". In order to pursue these questions, *Organizations* (March and Simon, 1958, 1993) was written, as was *A Behavioral Theory of the Firm* (Cyert and March, 1963), both part of the development of the behavioral economics program at Carnegie Mellon University.

March's research has spanned five decades and (at least) as many disciplines, and his research centers on questions relating to organization theory, learning and human behavior (in organizations and elsewhere). The most consistent theme in March's work, one that runs through the entire publication list, is the study of organizations. And, while we cannot easily classify him as a "sociologist", "political scientist" or "economist", there can be no question of his greatness as an organization theorist. For example, he was a co-author of perhaps the first seminal contributions to the field (March and Simon, 1958, 1993; Cyert and March, 1963) as well as the first editor of the *Handbook of Organization Studies* (March, 1965). March's academic career has been focused on understanding and analyzing human decision making and behavior. The basic thesis that he has pursued is that human action is neither optimal (or unboundedly rational) nor random, but nevertheless reasonably comprehensible (March, 1978, 1994, 1999). The ideas that were developed in order to understand human behavior in organizations in March's early work in the analysis of how people deal with an uncertain and ambiguous world included, among other things, the concepts of bounded rationality and satisficing (March and Simon, 1958, 1993).

In this rest of this paper, I will outline part of the evolution of March's work framework he has developed in order to understand human action in often complex situations. In particular, this framework became clear and was shaped by his background at the interdisciplinary environment at Carnegie Mellon in the 1950s and 1960s. Understanding his contributions and ideas of March and his colleagues in the early years, and the background of their seminal work, we will also be able to understand the interdisciplinary legacy present in our field(s) today.

2. Early ideas and work

Born on January 15, 1928 in Cleveland, Ohio, James G. March finished his high-school years in 1945 in Madison, Wisconsin, where the March family had moved in 1937. As a young boy March was an "all around American boy", playing all sports and also serving as captain of his junior high-school football team (March, 2001). He liked school

and became interested in politics. While he took all the mathematics courses available in high-school, March had at that time no particular intention of going in to a "hard-science" career. Rather, he felt a strong interested in government. As a result, although he had offers from both the military academy and the naval academy, March decided instead to go into political science. "Had I gone the other way, I supposed I would have become an engineer", March (2001) later recalled.

Living through the post-war years, March had no clear idea how his career would turn out. He went to study for his bachelor degree in political science at the University of Wisconsin (later continued with doctoral studies in the same field at Yale University). Having spent time in the army (1946-1948), March was eager to complete his undergraduate, obtaining his BA from Wisconsin in 1949. Although it might be possible to speculate that an institutional influence might have emerged at Wisconsin, March does not recall being particularly influenced by anyone there, although he was attracted to the strong academic environment[1]. He did most of his work there in political science, but also took courses in economics (mostly public finance), statistics; yet he had "very little exposure" to fiends such as sociology or psychology (March, 1998).

Having completed his undergraduate years, March went on to graduate school at Yale. The time at Yale was good in the particular sense that, because of faculty disputes, March was afforded a high degree of intellectual freedom. "Mostly for perverse reasons", March (1953, p. iii) explained in the preface to his thesis:

> the political science department at Yale was a good place for a Wisconsin innocent in 1949-1953. One large segment of the faculty had recently left in a huff; several senior faculty members were hardly talking to each other; there were mutually abusive intellectual and personal factions; some of the smartest people were also the least house-broken; and the university kept trying to find an outsider who would take over as chairman and somehow bring order to it all. There were young faculty doing their work and ducking the shrapnel, students wondering whose side to pick, and the main combatants providing an utterly unbearable but charming introduction to the low correlation between IQ and good sense.

As a result of this situation, faculty had little time interfering with the student's education, and March received must of his education from the library. He also took a job at the Yale Center for Alchohol studies, originally to study colleagues' drinking habits. However, March was as much influenced by the ideas of people as from books. Interaction with political scientists such as Robert Dahl and V.O. Key, economist Charles Lindblom, anthropologist George Peter Murdoch, and sociologist Fred Strodtbeck, awakened in March a broad interest in the social sciences. Taking courses in such different fields did not bother March in the least; on the contrary, what might seem to some a schizophrenic existence, March found essential for pursuing his interest and lived quite happily in many different disciplinary worlds at once.

Determined to analyze and understand human decision making and behavior, March felt comfortable with the tools of linear algebra and statistics early on, and felt that these tools were important to model building in the social sciences (Lave and March, 1976). At the same time, however, he also had a deep concern for empirical data and for historical and institutional approaches to economics, political theory, psychology, and other social sciences. This interdisciplinary and cross-disciplinary interest had been fostered early on; he grew up in Wisconsin with a father who was a student of J.R. Commons. March's interdisciplinary interests made him an interesting

candidate for the then-beginning behavioral perspective on human decision making, which was just emerging around Herbert Simon at Carnegie Institute of Technology (later Carnegie Mellon University). In keeping with March's views, they would develop a strategy for crossing disciplinary boundaries in order to understand human action. This needed the understanding of both the historical perspectives of theories and empirical investigations. As such, March seems to have had little patience with either thoroughgoing empirical research or fully specified theory, which is to say, with the most typical products of academic (perhaps in particular economic) research. Not for him the narrow positivist examination of evidence for and against previously specified hypothesis, March preferred to survey other approaches, other ideas, for the pregnant new fact that would set off a new train of thought, often finding that Plato and Aristotle thought of things in a way significant to our times. The first quote in his dissertation put an interesting twist to his sense of the intellectual project:

> And this knowledge of the nature and habits of men's souls will be of the greatest use in that art which has the management of them; and that art, if I am not mistaken, is politics (Plato, quoted in March, 1953, p. 1).

Notwithstanding his unusual ability to bring together different aspects of different disciplines, March did see himself as mostly a political scientist early on, as evidenced by the fact that when he first began thinking about jobs, it was political science departments that were on his radar screen (March, 2001). Certainly, he was not thinking about business schools; yet it was at a business school that March got his first academic job. So why in 1953 did he leave Yale for a business school at Carnegie Mellon University (then Carnegie Tech) where he would spend the next 11 years of his career? Why Pittsburgh? He certainly could have stayed in political science. He had a degree from a good university with a good reputation in political science, he was staying at Yale as a SSRC post-doctoral fellow, so staying at the east coast would probably have been easier.

It seems likely that at some point March looked at the way his intellectual life was developing and realized that he would soon have to choose between a life in political science and one of interdisciplinary scholarly activity. March had plenty of ideas, some of which connected to organizational studies, and it was time to pursue them or give them up. His dissertation had opened multiple avenues for future interdisciplinary research.

The move to Pittsburgh was a decision to continue living in an interdisciplinary space and to pursue research on decision making in organizations fully, and a decision to engage in a collaboration with Herbert Simon, who at the time was helping to recruit for the Carnegie Institute of Technology's business school. Simon knew Robert Dahl, March's principal dissertation advisor, and asked him for prospective students to meet and Simon went to interview March. Simon recalled about their first meeting:

> We were building up this faculty, so Lee Bach and I were doing most of the hiring. In those days, you didn't have those big committees, advertising jobs for 6 months and such nonsense. We went to schools where we thought that interesting things were happening and where interesting people were. And then we asked our friends about who were the good doctoral students. So someone gave me Jim March's name, and we had dinner, and I think I phoned Lee back that same night and told him that I was offering Jim a job. That simple it was then. He was tops (interview with Simon, in Augier, 2001, p. 271)[2].

Although March had warmed up to the idea of studying organizational issues in the dissertation, the theory of the firm itself was "little more than a set of words to me", March (1998) would later recall. However, March decided that it would be interesting to work with Simon, and off he went to Pittsburgh where he helped shape the development of Carnegie Mellon University's new Graduate School of Industrial Administration. "The thing that was attractive about GSIA", March (2001) recalled, "was Herb Simon. I didn't know much else about the school, and I certainly didn't know anything about Pittsburgh. But Simon was smart, and he was talking about doing this review of organization studies, and by that time I was kind of thinking that may be that was the direction I wanted to go".

While March felt comfortable at the school, he was a political scientist and not, at least at that time, particularly interested in business or organization theory *per se*. This would soon change. March first taught courses in political science and later took over the course on "the history of ideas in social change". One of his students (who would later become a pioneer in the field of computer science and artificial intelligence), Edward Feigenbaum, remembers that it was this course which attracted Feigenbaum to the school and in particular that March taught ideas from game theory, which was at that time at a very early stage of development, and before any substantial developments had taken place in non-cooperative game theory. "That was fascinating – absolutely fascinating to me", Feigenbaum (2001) recalls. "That one could apply analytic and careful models to social phenomena". The fact that game theory was taught side by side with social psychology, sociology, and statistics, by a professor educated in political science, is just one sign of the interdisciplinary spirit at Carnegie.

Only gradually did March move into teaching organizations/business course teaching. However, he quickly established very good work relations with Simon and also with Richard Cyert. He also had many conversations with other colleagues such as Bill Cooper, Fred Tonge, Harold Guetzkow, Allen Newell and Jack Muth, but his principal collaborators were Simon and Cyert.

The 1950s and early 1960s was an important period in the history of ideas, and Carnegie Mellon University during those years proved to be a very stimulating and very productive place where several important ideas were fostered. March, along with Richard Cyert and Herbert Simon developed the field of behavioral economics, which has proved an important alternative to neoclassical economics. Furthermore, it was the place where several other modern developments in economics and organization theory were initiated, such as transaction cost theory and evolutionary economics (Williamson, 2001), not to mention rational expectations theory and linear and dynamic programming. Carnegie was also very important to the development of March's intellectual formation and early ideas. As a context for accommodating and appreciating his interdisciplinary curiosity and interest, Carnegie Mellon greatly influenced the content of March's research, early as well as later in his career. "I think it would be very hard for anyone who has an academic career", March (2001) said in looking back, "not to find the first ten years of his career very, perhaps the most, influential. And this was a place with a lot of excitement and drive". Furthermore, it was at Carnegie that his thoughts became centered on organizations. While he had a vague notion of organizations before he went to Carnegie, "It certainly became much clearer at Carnegie", he said. "If I look at everything I have done subsequently, I can see the seeds of all of it at Carnegie" (March, 2001). This is the view of a man whose

essential intellectual project over the next four decades was driven by the need to understand behavior and bounded rational, yet intelligent, decision making in individuals and organizations. Just so, as the pattern of his subsequent research can be best understood as at attempt to develop and refine the views developed at Carnegie, we must examine and understand the thoughts and ideas that were kicking around at Carnegie at the time. This brings us to issues such as "How did the idea of behavioral science emerge?", and "Why did the Ford Foundation decide to sponsor the research of March and colleagues at Carnegie?". It also relates to the history of management/business education in general.

3. Business education and Carnegie

When business schools began in the USA over a century ago, it was initially Wharton and UC Berkeley that led the way. Early business schools developed their roles to provide managerial training for railroad executives – the first big businesses to emerge. In the USA, early business schools had difficulty establishing academic legitimacy. Fortunately, however, several scholars did start on university campuses, providing a future opportunity to reach out to scholars in other disciplines.

However, early business schools in the USA were not considered as serious participants in the world of academic scholarship and intellectual pursuits. They often defined their role primarily in terms of codifying and communicating good business practice, as exemplified by business case writing and teaching. Indeed, many early faculty positions were filled with experienced businessmen (e.g. Arthur Andersen) rather than young scholars. Despite the efforts of some deans and faculty to migrate towards more academic pursuits, the schools emphasized practical, not theoretical courses; applied, not basic science; and the contributions of faculty were more often publishing in practitioner magazines than in academic journals. Simon (1991, p. 138), who witnessed and contributed to the transformation of business education, reflected in his autobiography:

> Accurately or not, we perceived American business education at that time as a wasteland of vocationalism that needed to be transformed into science-based professionalism, as medicine and engineering had been transformed a generation or two earlier.

The immediate post-war period was an era that glorified big science (Leslie, 1993; Zachary, 1999). The social and behavioral sciences became more quantitative, more analytical, and more committed to scientific principles. A report by Robert Gordon at Berkeley and James Howell at Stanford defined a watershed in business education when it advocated the adoption of analytical approaches to management education. Spurred by this study (Gordon-Howell Report in 1959), the Ford Foundation dedicated more than 35 million dollars during the 1960s to successful efforts to reform business schools (Schlossman *et al.*, 1987).

The Ford Foundation had at that time formulated a program for "the study of man" (which became known as "the behavioral science research area") the specific objective of which was stated as follows:

> The Ford Foundation will support scientific activities designed to increase knowledge of factors which influence or determine human conduct, and to extend such knowledge for the maximum benefit of individuals and of society (Simon, 1951).

Research had to be scientific; embodied in the Ford Foundation's understanding of the behavioral science concept was "its emphasis upon the scientific approach to problem solution" (Simon, 1951, p. 4). And it had to be practical, to some extend at least, given the foundation's interest not in knowledge *per se*, but in "knowledge which promises at some point to serve human needs". Furthermore, it explicitly encouraged interdisciplinary research:

> The program is interdisciplinary and inter-field. Its goal is to acquire and apply knowledge of human behavior, and segments of all fields and disciplines will make contributions in varying degrees.

Carnegie Mellon University (then the Carnegie Institute of Technology), through its Graduate School of Industrial Administration, became the role model for a research, based, disciplinary-oriented (but very interdisciplinary) approach to business education and an invigoration of fundamental interdisciplinary research in accounting, finance, marketing, operations research, microeconomics, and organizations. *Organizations* (March and Simon, 1958, 1993) and *A Behavioral Theory of the Firm* (Cyert and March, 1963) are two significant results of the early work on business research at Carnegie. In addition to filling a need in the establishment of the behavioral sciences, research on organizations became the emergent discipline of business school education, bringing together different disciplines in the study of decision making and behavior in organizations.

It was the image of the Ford Foundation's behavioral vision that Herbert Simon, one of the first to arrive at the Carnegie Campus, had in mind when forming the GSIA group. As a result, he hired young faculty with similar interests who had the technical skills, but also a broader knowledge in social science. In addition to March, we find among his hires Harold Guetzkow and Allan Newell. The group at Carnegie soon consisted of many talented young scholars who were all eager to contribute to this newly formed vision of behavioral science. The spirit at Carnegie was such that everybody interacted with everybody else; discussing each others' ideas and research in a way that encouraged collaborative teams to work together, as well as across projects. Despite different disciplines, interests and despite different disciplines and despite varying degrees of admiration for the idea of rationality, these teams always worked together in a friendly way. For instance, while much of Simon's research centered around bounded rationality, the work of Franco Modigliani had a high rational component to it. Regardless of the differences in their intellectual models, they respected each other worked well together, since at Carnegie, intellectual curiosity and dedication was highly appreciated and mattered more than disciplinary boundaries. This interdisciplinary, yet disciplined, way of working because pioneering for subsequent developments in economics – and spurred the development of entirely new areas of interdisciplinary research on organizations and organizational decision making.

It was a business school, but they thought of themselves as reforming economics. In keeping with this, and with spirit of the Ford Foundation emphasis, the two major projects, *Organizations* and *A Behavioral Theory of the Firm*, sought to integrate economics ideas with those coming from the more soft disciplines of sociology and social psychology. In keeping with March's background and perspective (and the ideas of Simon and others), this was a style of analysis and strategy that best suited the

emerging business school, but one with very little attention for the boundaries of disciplines.

The following section takes a closer look at these early major works.

4. The emerging behavioral perspectives on firms and organizations

At Carnegie, March worked mostly on organizations (March and Simon, 1958, 1993), the behavioral theory of the firm (Cyert and March, 1963, see below), and the concept of power in the study of social systems. The major goal of *Organizations* was to make a "propositional inventory" about organization theory in order to list generalizations and to assess empirical evidence to support them (March and Simon, 1958, 1993, p. 1). In their view, organization theory builds on ideas from sociology, social psychology and economics, but also borrows from game theory and statistical decision theory. Again, in keeping with the view of the Ford Foundation's, they wanted to unite empirical data-gathering research with rigorous theorizing in order to create a rigorous empirical theory that could organize and so give meaning to empirical facts with legitimate theory. Science, they believed, was the product of the organization of empirical facts into conceptual schemes, and the progress of science was based on the development of more sophisticated and elegant theoretical systems, but not necessarily the discovery of new facts. "It was hard work", March (2001) recalled, "but also fun".

Acknowledging debts to Parsonian social theory, the conceptual framework of structural-functional analysis is seen as underlying much of existing organization theory. A good example is the Barnard-Simon inducement-contributions schema as it is evident in the use of terms such as "purpose" and "process" in the description of departmentalization and generally, in the view of organizations as adaptive, self-maintaining systems.

By the time *Organizations* was written, March was also publishing articles relating to *A Behavioral Theory of the Firm*. So for a time, the projects overlapped. Cyert (1998) recalled about his early collaboration with March:

> I came to Carnegie in 1948 and Jim came in 1953, and we really hit it off. I had been doing quite a bit of reading and had come to the conclusion that we weren't ever going to get a theory of how oligopoly priced without going inside the firm. And I talked to Jim about it and thought that we might be able to do something with organization theory and oligopoly theory. Fortunately, Jim was very interested and we started having our lunches together ... [I]t was really an exiting time, because we would talk, get ideas, write something down and eventually we would produce a paper ... [I]t was a big thrill for us and the school of course was pleased as well. So we continued working together ... I was (and I still am) very pleased with our work ... That became the basis of deciding to do a book together. We had I think 8-10 papers that were different and were all beginning to focus on the same thing called behavioral economics. We worked together even though I became the dean of the school in 1962 and it was a really exiting time. By that time we had finished the book and it was published in 1963 ... That is really how *The Behavioral Theory of the Firm* got started.

It was to be a friendship that lasted until Cyert's death (March, 1998). Their first co-authored paper, "Organizational behavior and pricing behavior in an oligopolistic market" was published in the *American Economic Review* in 1955, and about seven years later they completed *The Behavioral Theory of the Firm*. Their last collaborative work was the "Epilogue" to the second edition of that work, published in 1992. Many of their conversations would take place behind the auditorium in GSIA, during lunch, "so

no-one could find us", March (2001) recalled. Occasionally, conversations on the theory of the firm would continue at baseball games while watching the Pittsburgh Pirats play.

The particular set-up for *A Behavioral Theory of the Firm* was a little different than for *Organizations*. While both grew out of the Ford Foundation's concern for behavioral theory, *Organizations* was largely written by two people, Simon and March (with the assistance of Harold Guetzkow), whereas *A Behavioral Theory of the Firm* was a truly collaborative effort, led by Cyert and March, assisted by graduate students such as William Starbuck, Edward Feigenbaum, Julian Feldman and Oliver Williamson. Perhaps this difference in set up was as much a function of the growth of GSIA than anything else; by the time *A Behavioral Theory of the Firm* got started, there were more students around to work on the projects.

A Behavioral Theory of the Firm was also more distinctly oriented towards economics. The authors wanted to present a theory of the firm that was not so much an alternative to the neoclassical theory of the firm as it was an attempt to develop a theory that could be used to study decision making in firms, not just comparative statistics, as in mainstream price theory[3].

At the center of *A Behavioral Theory of the Firm* is the idea of the firm as an adaptive political coalition (also presented in March, 1962), a coalition between different individuals and groups of individuals in the firm, each having different goals and hence the possibility of conflict of interest. "Since the existence of unresolved conflict is a conspicuous feature of organizations", the authors stated, "it is exceedingly difficult to construct a useful positive theory of organizational decision making if we insist on internal goal consistency. As a result, recent theories of organizational objectives describe goals as the result of a continuous bargaining-learning process. Such a process will not necessarily produce consistent goals" (Cyert and March, 1963, p. 28). Another insight from the behavioral theory of the firm is the idea of the firm as an adaptive system, whose experience is embodied in a number of "standard operating procedures" (routines); procedures for solutions to problems which the firm in the past has managed to solve. As time passes and experience changes, the firm's routines change through processes of organizational search and learning. As a result, the firm is seen not as a static entity, but as a system of slack, search, and rules that changes over time in response to experience, as that experience is interpreted in terms of the relation between performance and aspirations. Elements of this view of the firm can now be found in modern developments, such as transaction cost economics (Williamson, 1985, 1996) and evolutionary theory (Nelson and Winter, 1982).

The books, however, also had many similarities. They were both written in a setting in which the interaction between March, Simon and Cyert was very strong. So the ideas therefore merged a lot. In retrospect, March thinks of the two books as having different objectives, more than different ideas. March and Simon was an attempt to create an inventory; to organize everything known about organization theory; whereas Cyert and March was much more oriented towards finding something relevant to say about the theory of the firm. The latter focused on issues such as problemistic search; it focused on the relevance of learning to the theory of the firm. A more substantial difference, perhaps, is that, although there is at least one chapter on conflict of interest in *Organizations*, it was much more central to *A Behavioral Theory of the Firm*.

Also, although March and Simon (1958, 1993) is predominantly a descriptive theory, it also makes occasional forays into the prescriptive domain, more than does Cyert and March (1963). However, the idea of organizational slack is more important to Cyert and March (1963) than it is to March and Simon (1958, 1993), as is the idea of uncertainly avoidance. On the other hand, classical issues such as satisfaction, planning and motivation are importance ingredients in March and Simon (1958, 1993), but less so in Cyert and March (1963). Finally, whereas Cyert and March was very focused on (economic) theories of the firm, March and Simon had a broader organizational focus. This is also reflected in the fact that it was *A Behavioral Theory of the Firm*, not *Organizations*, which received reviews in mainstream economics journals such as *Quarterly Journal of Economics*, *Econometrica* and *American Economic Review* and was reviewed by economists such as Day (1964) and Winter (1964), both of whom would later contribute to the development of some thoughts associated with the behavioral project.

In both of these works, March and his early co-authors thus proposed to include a more inclusive range of limitations on human knowledge and human computation that prevent organizations and individuals in the real world from behaving in ways that approximate the predictions of neoclassical theory. For example, decision makers are sometimes confronted by the need to optimize several, sometimes incommensurable, goals (Cyert and March, 1963), goals that are unclear, changing, and to some degree endogenous (March and Olsen, 1976; March, 1978). Furthermore, instead of assuming a fixed set of alternatives among which a decision maker chooses, March postulated a process for generating search and alternatives and analyzing decision processes through the idea of aspiration levels (March and Simon, 1958, 1993), a process that is regulated in part by variations in organizational slack (Cyert and March, 1963). These are all themes deeply embedded in today's work in organization theory and strategy (Teece *et al.*, 2002).

5. Conclusion

The idea of rational action starts from the idea that individuals should not make systematic mistakes. Agents are not stupid; they learn from their mistakes and draw intelligent inferences about the future from what is happening around them. Various ideas originating from the (broad) concept of bounded rationality underpins many modern developments in research on organizations. Although Herbert Simon was the first promoter of bounded rationality and the early view was embedded in the work of *Organizations* (March and Simon, 1958, 1993), the initial focus on methods for improving the behavior of boundedly rational agents subsequently changed (in particularly in March's work) to accommodating (and perhaps even expanding) the boundaries of rationality, rather than trying to fix them. It was this focus which led March to develop themes such as foolishness, intelligences, adaptive aspirations, and search and to address their relation to organizational behavior, and to an emphasis on learning – themes which are central to today's field of organization theory.

Notes

1. There is, of course, a strong institutionalist component to research at Wisconsin (Rutherford, 2001). Moreover, there also are strong ties between behavioral economics and Wisconsin; both March and Simon grew up in Wisconsin (as did one of their students, Oliver

Williamson). Further note that while March's father was a student of John R. Commons, so was Simon's uncle. Yet, despite these early connections, neither Simon nor March seemed particularly biased early on towards the institutionalist tradition, though retrospective speculations surely could attribute more to such connections.

2. March (1998) also recalled: "Herbert Simon, who was a political scientist by training, knew Dahl fairly well at that time. Herb wanted someone he could work with at came to Yale. He talked to me over a dinner, and then he hired me. That was back in the days when hiring was a little more informal than it is now".
3. As Cyert and March (1963, p. 16) noted: "Ultimately, a new theory of firm decision making behavior might be used as a basis for a theory of markets, but at least in the short run we should distinguish between a theory of microbehavior, on the one hand, and the micro assumptions appropriate to a theory of aggregate economic behavior on the other. In the present volume we will argue that we have developed the rudiments of a reasonable theory of firm decision making".

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