

Daniel Simonovich, Robert LoBue (eds.)

Aspects of Behavioral Strategy

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Introduction

In the dynamic world of modern business, strategy-making has witnessed profound shifts. Gone are the days when strategy was solely governed by stringent analytical models. Today, there's a burgeoning recognition of the role human behavior plays in shaping strategic choices and outcomes. "Aspects of Behavioral Strategy" is a testament to this evolution, offering readers an in-depth exploration of how behavioral insights are entwining with traditional strategic paradigms, reshaping them for the complexities of today's organizations.

This book is the collective brainchild of graduate students and alumni from ESB Business School of Reutlingen University, enriched by contributions from the school's faculty and from INSEAD. With this diverse set of authors, the content presents a blend of academic rigor and practical relevance, making it an invaluable resource for business students, scholars, practitioners, and anyone interested in the nexus between strategy and human behavior.

Part I: Foundations of Behavioral Strategy establishes the foundational pillars of behavioral strategy. Here, readers are introduced to the behavioral theory of the firm, unearthing the intersections of social psychology and cognitive frameworks with strategic practices. As we navigate the turbulence of VUCA (volatile, uncertain, complex, and ambiguous) environments, the significance of cognitive processes in strategic management becomes evident. This section further explores the realms of strategic decision-making, organizational learning, and system dynamics, laying the groundwork for this nascent discipline.

Venturing into **Part II: Tools and Techniques in Strategy**, the spotlight is cast on the continually evolving methods and approaches within strategy. This section invites readers to trace the evolutionary trajectory of strategic tools, grasp the intricacies of formulating and evaluating strategic choices, and familiarize themselves with the "simple rules" approach in strategy. The emphasis throughout is on strategic tools that are attuned to the imperatives of human behavior.

Part III: Further Topics in Behavioral Strategy immerses readers in specialized facets of behavioral strategy. This section dissects the interplay between emotions and strategic initiatives, highlighting the powerful

emotional undertows that can either bolster or hinder strategy execution. Moreover, the promising confluence of neuroscience and strategic management is unveiled, suggesting intriguing avenues for future research. The section rounds off with a deep dive into behavioral game theory, underscoring its pivotal role in strategic decision-making scenarios.

In "Aspects of Behavioral Strategy," you are not just exploring strategy; you are embarking on a journey where strategic models intertwine with the complexities of the human psyche. We invite you to delve into these pages and enrich your understanding of strategic management in the contemporary business milieu.

Welcome to a world where strategy resonates with the human essence.

Daniel Simonovich
Robert LoBue

Part I:
Foundations of
Behavioral Strategy

Behavioral Theory of the Firm

Robert LoBue, Constanze Peters and Simona Rabuzin

Abstract. This article discusses the behavioral theory of firms and how it lays the foundation for behavioral strategy, which combines elements of social psychology and cognitive frameworks with strategic management principles and practices. The goal is to highlight key contributions from various authors by comparing their work. Emphasis is placed on the behavioral theory of firms and its significance to behavioral strategy that integrates social psychology and cognitive aspects with strategic management practices. However, this area of study is still relatively untapped, and more research is needed to develop comprehensive approaches.

Keywords: behavioral theory of the firm, behavioral strategy, behavioral research, organizational decision-making, bounded rationality, cognitive psychology

1. Introduction

Many publications in the fields of strategy and organizational theory have incorporated important concepts of the behavioral theory of the firm as a theoretical basis. Several authors have already addressed implications of the behavioral theory of the firm extensively, for example, in the fields of behavioral finance and behavioral economics (Barber, Heath & Odean, 2003; Nelson & Winter, 1982; Williamson, 1996). However, limited research has examined the importance of the behavioral theory of the firm for behavioral strategy and how this theory has influenced the overall field of strategy. Therefore, the article at hand examines central ideas of the behavioral theory of the firm and its impact on the general field of organizational dynamics, with a specific focus on behavioral strategy.

The examination begins with the following section, where the behavioral theory of the firm is defined and evaluated. Thereafter, the field of behavioral strategy is critically analyzed including its definition and different streams of research. Furthermore, on the basis of this analysis, the behavioral theory of the firm is linked to the topic of behavioral strategy, while the implications of the behavioral theory of the firm for behavioral strategy are examined in detail. Finally, research gaps are defined to

identify further areas of study to potentially widen the field of attention in this topic.

2. Outline of the behavioral theory of the firm

A number of recent scholars, including Argote & Greve, 2007; Gavetti, Levinthal, & Ocasio, 2007; and Gavetti, Greve, Levinthal & Ocasio, 2012, emphasized the importance of the behavioral theory of the firm for organizational theory, as applied to general organizational phenomenon, as well as strategic management. In the following, a brief introduction to behavioral theory of the firm and its historical background is given.

2.1. Historical development of behavioral theory of the firm

According to Băleanu (2007), the impetus for development of the behavioral theory of the firm stemmed from the seminal works of H. A. Simon in the middle of the past century, his book *Administrative Behavior* in 1947 and his article “A Behavioral Model of Rational Choice” in 1955. Gavetti and Levinthal (2004) stated further that many contemporary strategic implications of the theory are contingent on the follow-on books *Organizations* by March and Simon (1958) and *A Behavioral Theory of the Firm* by Cyert and March (1963). As a consequence, these contributions have set the cornerstone for the behavioral theory of the firm. These academic works are also often considered as having formed the early “Carnegie School conceptions”, which were built on three assumptions: “organizations as the ultimate object of study, decision making as the privileged channel for studying organizations, and behavioral plausibility as a core principle underlying theory building” (Gavetti et al., 2007).

In general, the behavioral theory of the firm has a high significance for the overall field of behavioral and organizational theory (Augier, 2013; Augier & March, 2008; Argote & Greve, 2007). However, the behavioral theory of the firm did not only establish one single theory, but, until today, numerous behavioral and organizational theories, all treating different aspects of the firm, have been influenced by the concept of behavioral theory of the firm (Argote & Greve, 2007). Thus, by reason of its very open nature, the concept of the behavioral theory of the firm allows scholars to build on these multiple ideas of the behavioral and organizational theories and develop them further (Miner, 2015). It is hence considered to be a very broad-based theory (Argote & Greve, 2007). However, the core element of the theory has remained the same over the course of time, which is “a

behaviorally grounded approach that treats bounded rationality, adaptive processes, and unresolvable goal conflict and ambiguity as foundational” (Gavetti, et al., 2012). In the following, a definition of the behavioral theory of the firm is presented.

2.2. Definition of the behavioral theory of the firm

While the behavioral theory of the firm is a very broad concept, consisting of multiple and varying aspects, its main premise was predominantly shaped by March and Cyert (1958) and has been employed by many different scholars over the subsequent years (Augier, 2013; Maslach, Liu, Madsen & Desai, 2015; Gavetti & Levinthal, 2004). Originally, the theory was developed as a critique of organizational theory and “viewed macro-level phenomena, such as price setting and resource allocation, as stemming from fundamental decision processes carried out by individuals within organizational entities” (Maslach et al., 2015). It remains a concept that “opens up the black box of the firm and accumulates theory and evidence on how a firm behaves as a result of lower-level processes, possibly involving individuals and groups, and certainly leading to observable decisions on economically important variables” (Gavetti et al., 2012).

The behavioral theory of the firm has been hence constructed on “organizational goals, a bounded rationality conception of expectations, an adaptive conception of rules and aspirations, and a set of ideas about how the interactions among these factors affect decisions in a firm” (Augier & Teece, 2009). Whereas the central idea behind the behavioral theory of the firm is, that a company is no longer viewed as a “mono-objective/mono-decision” entity, as it has been seen in traditional frameworks, but it is rather considered as a “multi-objective/multi-decision” entity where groups such as employees, suppliers, managers, customers, as well as shareholders comprise the entity of the firm (Băleanu, 2007). Each of these groups possesses its individual demands and interests, consequently leading to conflicts, for example, regarding the allocation of a company’s resources (Augier & March, 2008; Băleanu, 2007).

An underlying concept of the behavioral theory of the firm has been the belief that decisions in a firm are intended to be rational but, due to human and organizational limitations, will never be completely rational. Therefore, a crucial assumption has also been that a firm consists of bounded rational individuals and groups (Simon, 1995; Cyert & March, 1963; Blume, Duffy & Franco, 2009) and that decision-making in firms is dependent on finding a satisfying solution rather than looking for the best

possible solution (Cyert & March, 1963). While previous research into the workings of the decision-making process had confirmed and emphasized the importance of a standard procedure for recurring decisions (Allan, 1966), this implied that managing an organization involved handling bounded rationality in a developing business setting (Dew, Read, Sarasvathy & Wiltbank, 2008) and adapting its future strategies and objectives with regard to already gained experience (Augier & March, 2008). This suggested that organizations can learn new objectives, which contrasts with the prevailing opinion that organizations have unchanging values and strategies (Miner, 2015).

As seen in the above-mentioned analysis, the original works by Cyert and March (1963) and by March and Simon (1958) presented a particularly influential concept that still impacts scholars and the directions of their research. In particular, the fields of behavioral economics and behavioral finance have been strongly influenced by the behavioral theory of the firm. In behavioral finance, topics such as the investment behavior of groups vs. the investment behavior of individuals have been assessed (Barber et al., 2003). Fundamental economics concepts such as evolutionary economics and transaction cost economics have also been influenced by the behavioral theory of the firm (Nelson & Winter, 1982; Williamson, 1996). More recently, the topic of behavioral strategy has received increasing attention and has been discussed more frequently in academic literature. However, behavioral strategy has not yet been developed to the same extent as behavioral economics and behavioral finance. Hence, an overview of behavioral strategy is presented below and, afterwards, it is linked to the behavioral theory of the firm.

3. Overview of behavioral strategy

At this point, the term strategic management needs to be clarified since it is a fundamental component of understanding behavioral strategy. Early research was performed in the 1960s and 1970s where scholars such as Anshen and Guth (1973) and Meyer (1978) shaped the theoretical background of strategic management and established sub-topics, such as: strategy concept, evaluation, content, implementation, management process, board of directors and general management roles, and new ventures (Ronda-Pupo, 2015).

Indeed, along with the behavioral theory of the firm (Cyert & March, 1958), strategic management has been influenced by many different behavioral streams of research, such as behavioral decision research

(Kahneman & Lovallo, 1993), cognitive frameworks (Reger & Huff, 1993), and cognitive theory (Hodgkinson & Healey, 2008), as well as important values such as corporate attribution (Salancik & Meindl, 1984), emotions derived from intrinsic and extrinsic motivation (Nickerson & Zenger, 2008), attention of decision makers (Ocasio, 1997), and comparison of the aspiration level (Greve, 1996). However, strategic management in theory and practice has struggled to keep pace with behavioral movements in economics and finance. Strategic management theory lacks a proper psychological grounding, especially concerning the firm's heterogeneity of participants (Powell, Lovallo, & Fox, 2011). This point protrudes, because many firms suffer from poor executive judgement or from company cultures of poor and slow decision-making. Nag, Hambrick & Chen (2007) have also identified this lack of a solid foundation in psychology. Therefore, as was observed much earlier by Mintzberg, "strategic management has yet to gain sufficiently from cognitive psychology" (Ahlstrand & Lampel, 1998). Recent developments have emerged, which provide new opportunities for merging psychology with strategy, to fulfill an imperative where a dense foundation for behavioral strategy is based more specifically on cognitive psychology (Powell et al., 2011).

3.1. Definition of behavioral strategy

As noted earlier in this article, the term behavioral strategy does not arise often in literature and thus has no unanimously accepted definition. According to Powell et al. (2011), it is not possible to define boundaries, show methodological standards, give insights on the conceptual framework or have the chance to rely on supporting institutions, because "Behavioral strategy is a patchwork of theories and findings, and cognitive psychology has not captured the hearts and minds of strategy researchers." Yet, in order to fulfill a fundamental need for a common basis of understanding, these same authors did provide the following definition:

"Behavioral strategy merges cognitive and social psychology with strategic management theory and practice. Behavioral strategy aims to bring realistic assumptions about human cognition, emotions, and social behavior to the strategic management of organizations and, thereby, to enrich strategy theory, empirical research, and real-world practice" (Powell et al., 2011).

To understand how this seemingly clear definition fits together with the premise of disunity of thought in the field of behavioral strategy, the

authors present two assumptions that are essential. The first assumption consists of the identification of a lack of conceptual unity, meaning that the requirement for more psychology research is less critical, per se, than the integration of existing psychology understanding into strategic management theory. The aim is to bring strategic theory closer to the empirical facts and simultaneously embed strategic research into strategic practice.

The second assumption consists of the identification by Powell et al. (2011) that a foundation from psychology is lacking in behavioral strategy, meaning that behavioral strategy requires a theoretical basis from cognitive and social psychology. The authors further stated that it is important to allow for methodological diversity of research in order to provide sufficient evidence for the influence of individuals and of social behavior within firms or organizations. This encourages researchers to see behavioral strategy through slightly different lenses. For example, more recently, authors emphasized that behavioral strategy enables individuals to regroup after periods of separation (Montero & Gillam, 2015) or to have an effective influence on evaluative conditioning-based learning (Ludvik et al., 2015).

3.2. Influence on behavioral strategy by three schools of thought in the empirical domain

To a large degree, the diversity of research on behavioral strategy is due to diversity in the empirical domain. According to Tetlock (2000), the empirical domain consists of the reductionist, pluralist and contextualist schools of thought. The first school of thought holds that, "Reductionist research relies on positivist, realist, and objectivist philosophies of science and favors quantitative hypothesis testing using methods such as mathematical modeling, simulations, and laboratory decision experiments" (Powell et al., 2011). The reductionist school is mainly influenced by scholars who contributed behavioral psychology topics such as the overcoming of cognitive biases (Kahneman, Slovic & Tversky, 1982) and by authors that further developed the strategic decision process (Edwards, Weiss & Weiss, 2009), including a study showing that behavioral game theory is derived from assumptions of reductionist research (Camere, 2003).

The second school of thought as specifically described by Powell et al. (2011) holds that pluralist research builds on "multiple theoretical traditions ... entrenched in positivist, nominalist, pragmatist or evolutionary philosophies of science" and "uses methods ranging from case studies and simulations to large sample field research." The pluralist school focuses on the overall decision-making of the firm which is a result of bounded

rationality, executive decision making in organizations, and group conflict (Powell et al., 2011).

The third school of thought holds that contextualist research encompasses the areas of management perception, the cognitive schema, the spoken language, and enacted environments. The contextualist school is embedded into constructivist, phenomenological philosophies of science and favors qualitative and interpretive methods such as textual analysis. In this area, the subjective beliefs or cognitive frames matter more than explicit decisions, which rarely comply with what firms actually do (Powell et al., 2011).

Powell et al. (2011) found, “diversity is the only reasonable option and that leveraging and integrating the three schools of thought need to become the first priority of behavioral strategy” and all the tools need to be applied in order to solve the research problems posed by behavioral strategy. This leads to examination of the impacts of the behavioral theory of the firm on behavioral strategy in the following section.

4. Impact of the behavioral theory of the firm on behavioral strategy

Reflecting on the impact of behavioral theory on behavioral strategy, Bromiley (2005) highlighted the potential of the behavioral theory of the firm, and thus cognitive approaches, to explain organizations’ strategic behavior. This perspective is further supported by literature which followed in the strategy field (e.g. Gavetti et al., 2012; Argote & Greve, 2007; Augier & Teece, 2009).

The behavioral theory of the firm emphasizes the importance of the decision-making process to success and, in turn, reveals the difficulty of merging firm-level aims with the goals of all groups within a firm. Cyert and March’s (1963) research into the cognitive foundations of decision-making in combination with the reductionist and contextualist school concepts provides a genuine foundation for a successful behavioral strategy (Gavetti et al., 2012). Freeman (1999) utilized the pluralistic school perspective to argue that behavioral theory could likely provide a theoretical base as a starting point of understanding behavioral strategy through linking aspects of psychology to organizational strategy.

Bromiley (2005) argued that even though the topic of behavioral strategy developed out of different streams of research, recent research topics form a foundation to describe a potential unifying framework of crucial aspects for this emerging field (Gavetti & Levinthal, 2004). In the

following table, the main research streams of strategy, which are based on the behavioral theory of the firm, are highlighted.

Topics	Research streams in strategy that have a behavioral foundation
Population ecology - attempts to explain the structure of a company by considering births and deaths.	<ul style="list-style-type: none"> • Hanan & Freeman (1984) and Amburgey et al. (1993) highlighted the importance of routines at the working-place • Hanan & Freeman (1977, 1984) observed that firms require acceptance from the public • Amburgey, Kelly & Barnett (1993) and Amburgey & Miner (1992) identified the cost imposed by change
Managerial cognition - fit of bounded rationally and cognition	<ul style="list-style-type: none"> • Schweiger, Sandberg & Rechner (1989) sought improvement in managerial decision-making by addressing conflict • Meindl, Stubbart & Porac (1996) and Sutcliffe & Huber (1998) showed that managers perceive certain situations subjectively rather than objectively • Barr (1998) and Barr, Stimpert & Huff (1992) indicated how strategic behavior is influenced by management's personal understanding
Top management teams - the structure and practice of top management teams	<ul style="list-style-type: none"> • Simons, Pelled & Smith (1999) indicated how conflict and performance are influenced by the group's dynamic • Rau (2001) showed how knowledge management of top management teams influences a firm's performance
Organizational decision-making - how firms make their decisions	<ul style="list-style-type: none"> • Eisenhardt (1989) and Bourgeois & Eisenhardt (1988) indicated how the quality of decisions is influenced by the structure of the decision-making process • McNamara & Bromiley (1997) assessed risky decisions • Greve (1998) examined how corporate decisions are made
Social networks research - information flow in firms	<ul style="list-style-type: none"> • Bell (1999) and Bell & Zaheer (2001) examined the different forms of networks and what information is shared on a network

Table: Research streams in strategy that are consistent with the behavioral theory of the firm (own representation based on Bromiley, 2005).

As demonstrated through the different scholars reviewed in previous sections above and by taking the different research streams of the table into account, it can be concluded that many aspects of the strategy field can be linked to underlying implications from the behavioral theory of the firm. However, it can also be expected that the field of strategy will continuously search for new, unifying approaches, that often build upon and include existing foundational concepts. With this in mind, Bromiley (2005) suggested that behavioral theory appears as a great opportunity, specifically that "The edifice is under construction." While Powell et al. (2011) pointed out that behavioral strategy builds on "past research in cognition,

behavioral decision theory, organizational behavior, and strategy”, but that this is just an early stage of research and many studies need to be conducted going forward. This is further supported by Durand, Grant & Madsen in their 2017 article “The expanding domain of strategic management research and the quest for integration” along with their citing of Mahoney & McGahan from 10 years earlier who recommended “the core agenda of the field of strategic management be extended” to include promising concepts, among others, such as social psychology and the behavioral theory of the firm.

5. Research gaps and future implications in the field of behavioral strategy

As shown in the preceding examination of the status of research, gaps in the understanding of behavioral strategy should be filled in order to fully define and reinforce its unique character and differentiate it from other accepted aspects of strategy. Based on the current status of scientific literature four questions are established that can provide a basis for further research:

- Is it possible to establish and define behavioral strategy as a unifying framework and, if so, what are its limitations?
- Which areas of research should be conducted and how can this be done to overcome the lack of psychological grounding of behavioral strategy?
- Can behavioral strategy rely on cognitive research already conducted in the field of the behavioral theory of the firm?
- How can already established ideas and information regarding the decision-making process as well as the best practices of the behavioral theory of the firm be transferred to the field of behavioral strategy?

Clearly, scholars have to marry the behavioral theory of the firm with the fairly new topic of behavioral strategy to attain new, profound insights and relevant conclusions for management practice. It should hence be helpful to fully establish behavioral strategy as a fundamental research stream in the field of strategy.

6. Conclusion

According to the review of the current and past literature, it is apparent that pioneers including Simon, Cyert and March were able to create a theoretical framework based on behavioral psychology, which offers a broad basis for an organization-centered behavioral approach (Gavetti et al., 2012). By reason of its very open nature, this approach permits additional scholars to build on its numerous behavioral concepts and further develop and elaborate upon them (Miner, 2015). Thus, these early authors were able to establish and contribute a highly respected and accepted concept, the behavioral theory of the firm, which remains relevant in today's business setting, influencing many behavioral research streams in business, management, and economics. The behavioral theory of the firm is therefore now a fully open concept consisting of many ideas that have been utilized by and influencers that have inspired many research streams in various directions, including, more recently, in the direction of behavioral strategy. Powell et al. (2011) have also more recently contributed a construct for the definition of the field of behavioral strategy. The behavioral theory of the firm in combination with behavioral strategy represents an emerging and promising field within organizational studies (Bromiley, 2005). Scholars agree that the development of the field of behavioral strategy calls for further research to seek a unifying approach, which could be achieved through the inclusion of already existing fundamental organization concepts, in particular, the behavioral theory of the firm.

References

- Allan, H. T. (1966). An empirical test of choice and decision postulates in the Cyert-March behavioral theory of the firm. *Administrative Science Quarterly*, 11(3), 405-413.
- Amburgey, T. L., Kelly, D., & Barnett, W. P. (1993). Resetting the clock: The dynamics of organizational change and failure. *Administrative Science Quarterly*, 38(1), 51-73.
- Amburgey, T. L., & Miner, A. S. (1992). Strategic momentum: The effects of repetitive, positional, and contextual momentum on merger activity. *Strategic Management Journal*, 13(5), 335-48.
- Anshen M., & Guth W. D. (1973). Strategies for research in policy formulation. *Journal of Business*, October, 499- 511.
- Argote, L., & Greve, H.R. (2007). A Behavioral Theory of the Firm—40 years and counting: Introduction and impact. *Organization Science*, 18(3), 337–349.
- Augier, M. (2013). The early evolution of the foundations for behavioral organization theory and strategy. *European Management Journal*, 31(1), 72-81.

- Augier, M., & March, J. G. (2008). A retrospective look at A Behavioral Theory of the Firm. *Journal of Economic Behavior & Organization*, 66(1) 1–6. doi:10.1016/j.jebo.2008.01.005
- Augier, M., & Teece, D., J. (2009). Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization Science*, 20(2), 410–421.
- Băleanu, V. (2007). The economic basis in organisational behaviour—behavioural theory of the firm. *Annals of the University of Petroșani Economics*, 7, 729–736.
- Barber B. M., Heath, C., & Odean T. (2003). Good reasons sell: reason-based choice among group and individual investors in the stock market. *Management Science* 49(12), 1636–1652.
- Barr, P. (1998). Adapting to unfamiliar environmental events: A look at the evaluation of interpretation and its role in strategic change. *Organization Science*, 9(6), 644–669.
- Barr, P., Stimpert J. L., & Huff, A. S. (1992). Cognitive change, strategic action, and organizational renewal. *Strategic Management Journal*, 13(S1), 15–36.
- Bell, G. G. (1999). *The Influence of Geographic Location and Network Position on Innovation in the Canadian Mutual Fund Industry*. PHD. Dissertation. University of Minnesota.
- Bell, G. G., & Zaheer, A. (2001). Instrumental but not enough: The influence of individual and organizational networks on communication flows. Paper presented at *The 2001 Academy of Management Meetings*, Washington, D.C.
- Blume, A., Duffy, J., & Franco, A. M. (2009). Decentralized organizational learning: An experimental investigation. *American Economic Review*, 99(4), 1178–1205.
- Bourgeois, L. J. III & Eisenhardt, K. M. (1988). Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. *Management Science*, 34(7), 816–835.
- Bromiley, P. (2005). *The behavioral foundations of strategic management*. *Theories of Strategic Management*. Malden, MA USA: Blackwell.
- Camerer, C. (2003). *Behavioral game theory: experiments in strategic interaction*. Russell Sage Foundation; Princeton University Press.
- Cyert, R. M., & March, J. G. (1963). *A Behavioral Theory of the Firm*. Englewood Cliffs, NJ USA: Prentice-Hall.
- Dew, N., Read, S., Sarasvathy, S. D., & Wiltbank, R. (2008). Outlines of a behavioral theory of the entrepreneurial firm. *Journal of Economic Behavior & Organization*, 66(1) 37–59. doi:10.1016/j.jebo.2006.10.008
- Durand R., Grant, R. M., & Madsen, T. L. (2017), The expanding domain of strategic management research and the quest for integration. *Strategic Management Journal*, 38(1), 4–16. <https://doi.org/10.1002/smj.2607>
- Edwards, W., Weiss, J. W., & Weiss, D. J. (2009). *A Science of Decision Making: the Legacy of Ward Edwards*. Oxford University Press.

- Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, 32(3), 543-576. doi:10.2307/256434
- Freeman, J. (1999). Efficiency and rationality in organizations. *Administrative Science Quarterly*, 44(1), 163-175.
- Gavetti, G., Greve, H., Levinthal, D., & Ocasio, W. (2012). The Behavioral Theory of the Firm: Assessment and Prospects. *The Academy of Management Annals*, 6(1), 1-40.
- Gavetti, G., & Levinthal, D. (2004). The strategy field from the perspective of management science: Divergent strands and possible integration. *Management Science*, 50(10), 1309-1318.
- Gavetti, G., Levinthal, D., & Ocasio, W. (2007). Neo-Carnegie: The Carnegie school's past, present, and reconstructing for the future. *Organization Science*, 18(3), 523 - 536.
- Greve, H. R. (1996). Performance, aspirations and risky organizational change. *Academy of Management Proceedings*, 1996(1), 224-228. <http://doi.org/10.5465/AMBPP.1996.4980460>
- Greve, H. R. (1998). Performance, aspirations and risky organizational change. *Administrative Science Quarterly*, 43(1), 58-86.
- Hanan, M. T., & Freeman, J. (1977). The population ecology of organizations. *The American Journal of Sociology*, 82(5), 929-964.
- Hanan, M. T., & Freeman, J. (1984). Structural inertia and organizational change. *American Sociological Review*, 49(2), 149-164.
- Hodgkinson, G. P., & Healey, M. P. (2008). Cognition in organizations. *Annual Review of Psychology*, 59(1), 387-417. <http://doi.org/10.1146/annurev.psych.59.103006.093612>
- Kahneman, D., & Lovallo, D. (1993). Timid choices and bold forecasts: A cognitive perspective on risk taking. *Management Science*, 39(1), 17-31. <http://doi.org/10.1287/mnsc.39.1.17>
- Kahneman, D., Slovic, P., & Tversky, A. (Eds.). (1982). *Judgment under uncertainty: heuristics and biases*. Cambridge, UK: Cambridge University Press.
- Levitt, B., & March, J. G. (1988). Organizational learning. *Annual Review of Sociology*, 14(1), 319-343.
- Ludvik, D., Boschen, M. J., & Neumann, D. L. (2015). Effective behavioural strategies for reducing disgust in contamination-related OCD: A review. *Clinical Psychology Review*, 42, 116-129. <http://doi.org/10.1016/j.cpr.2015.07.001>
- Mahoney, J. T. & McGahan, A. M. (2007). The field of strategic management within the evolving science of strategic management. *Strategic Organization*, 5(1), 79-99. <https://doi.org/10.1177/1476127006074160>
- March, J. G., & Simon, H. A. (1958). *Organizations*. New York: John Wiley & Co.
- Maslach, D., Liu, C., Madsen, P., & Desai, V. (2015). The robust beauty of "little ideas": The past and future of A Behavioral Theory of the Firm. *Journal of Management Inquiry*, 24(3) 318-320.

- McNamara, G. & Bromiley, R. (1997). Decision-making in an organizational setting: cognitive and organizational influences on risk assessment in commercial bank lending. *Academy of Management Journal*, 40(5), 1063-1088.
- Meindl, J. R., Stubbart, C. & Porac, J. F. (1996). *Cognition in and Between Organizations*. Thousand Oaks, CA: Sage.
- Meyer MW. (1978). *Environment and Organizations*. San Francisco: Jossey-Bass Publishers.
- Miner, A. (2015). The fecundity of authentic but incomplete designs and the future of the Behavioral Theory of the Firm. *Journal of Management Inquiry*, 24(3) 329–331.
- Mintzberg, H., Ahlstrand, B. W., & Lampel, J. (1998). *Strategy safari: a guided tour through the wilds of strategic management*. New York: Free Press.
- Montero, B. K., & Gillam, E. H. (2015). Behavioural strategies associated with using an ephemeral roosting resource in Spix's disc-winged bat. *Animal Behaviour*, 108, 81–89. <http://doi.org/10.1016/j.anbehav.2015.07.014>
- Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economic change*. Cambridge, MA USA: Harvard University Press.
- Nag, R., Hambrick, D. C., & Chen, M.-J. (2007). What is strategic management, really? Inductive derivation of a consensus definition of the field. *Strategic Management Journal*, 28(9), 935–955. <http://doi.org/10.1002/smj.615>
- Nickerson, J. A., & Zenger, T. R. (2008). Envy, comparison costs, and the economic theory of the firm. *Strategic Management Journal*, 29(13), 1429–1449. <http://doi.org/10.1002/smj.718>
- Ocasio, W. (1997). Towards an attention-based view of the firm. *Strategic Management Journal*, 18, 187–206.
- Powell, T. C., Lovallo, D., & Fox, C. R. (2011). Behavioral strategy. *Strategic Management Journal*, 32(13), 1369–1386. <http://doi.org/10.1002/smj.968>
- Rau, D. (2001). *Knowing Who Knows What: The Effect of Transactive Memory on the Expertise, Diversity-Decision Quality Relationship in Managerial Teams*. Ph.D. Dissertation, University of Minnesota, Carlson School of Management.
- Reger, R. K., & Huff, A. S. (1993). Strategic groups: A cognitive perspective. *Strategic Management Journal*, 14(2), 103–123. <http://doi.org/10.1002/smj.4250140203>
- Ronda-Pupo, G. A. (2015). Growth and consolidation of strategic management research: Insights for the future development of strategic management. *Academy of Strategic Management Journal*, 14(2), 155–169.
- Salancik, G. R., & Meindl, J. R. (1984). Corporate attributions as strategic illusions of management control. *Administrative Science Quarterly*, 29(2), 238-254.
- Schweiger, D. M., Sandberg, W. R., & Rechner, P. L. (1989). Experiential effects of dialectical inquiry, devil's advocacy, and consensus approaches to strategic decision making. *Academy of Management Journal*, 32(4), 745-772.
- Simon, H. A. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics*, 69(1), 99-118.

- Simon, H. A. (1947). *Administrative Behavior*. New York: Free Press.
- Simons, T., Pelled, L. H., & Smith, K. A. (1999). Making use of difference: Diversity, debate, and decision comprehensiveness in top management teams. *Academy of Management Journal*, 42(6), 662-673.
- Sutcliffe, K. M., & Huber, G. P. (1998). Firm and industry as determinants of executive perceptions of the environment. *Strategic Management Journal*, 19(2), 793-807.
- Tetlock, P. E. (2000). Cognitive biases and organizational correctives: Do both disease and cure depend on the politics of the beholder? *Administrative Science Quarterly*, 45(2), 293-326. <http://doi.org/10.2307/2667073>
- Williamson, O. E. (1996) Transition cost economics and the Carnegie connection, *Journal of Economic Behavior and Organization*, 31(2), 149-155.