BEHAVIORAL STRATEGY AND THE COVID-19 DISRUPTION[1]

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ABSTRACT

What can strategic management research do to help to make sense of the Covid-19 disruption, and what are the implications of the disruption for the strategy field? I argue that among the streams in strategy research, behavioral strategy is uniquely situated in terms of providing a psychologically-based interpretive lens that could lend great insight into decision-making in extreme conditions. However, the disruption also points to weakness in current behavioral strategy thinking, notably with respect to the role of models *vis-á-vis* judgment in strategic decision-making, the deeply social (political, institutional) nature of strategy making, and the treatment of fundamental uncertainty.

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INTRODUCTION

Strategy research features numerous frameworks and theories, some of which are (intended to be) general (e.g., the resource-based view, the positioning view) and some of which deal with more partial aspects of strategy (e.g., alliances, strategic human capital). However, among these many frameworks, none are dedicated to the understanding the strategic implications of disruptions, that is, radical and at least partially unforeseen changes that are exogenous to a set of interacting firms, such as industries or ecosystems. Schumpeterian theories of competition deal with change coming from within this set (Nelson & Winter, 1982). The dynamic capabilities view may offer insight into adaptation, but does so at a high level of abstraction (Teece, Pisano, & Shuen, 1997). The real options view (Kogut & Kulatilaka, 2001) rests on a probabilistic framework that doesn't easily accommodate the kind of event that Covid-19 was: While Covid-19 may not have been entirely unanticipated in the epidemiological community (Maxmen, 2020), no one in the business community appears to have anticipated it (i.e., placed a probability on it happening).

In this Editorial Commentary I argue that the emerging behavioral strategy view offers unique insight into decision-making in a situation of disruption, understood here as a situation in which a low probability or even entirely unanticipated event emerges that has drastic impact and consequences at a systemic level, upsetting not just relations between firms and their stakeholders within a single industry, but hitting at the level of the entire economy. It is hard to dispute that the Covid-19 disruption was a systemic disturbance, potentially exacerbated by both behavioral responses to the virus itself (Andersen, Hansen, Johannesen, & Sheridan, 2020) and by government interventions aimed at locking down much of the economy (Baker, Bloom, Davis, Kost, Sammon, & Viratyosin, 2020).

BEHAVIORAL STRATEGY

Behavioral strategy refers to the application of insights from psychology and behavioral economics to the research and practice of strategic management. In one definition of the field, "[b]ehavioral 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, Lovallo & Fox, 2011: 1371).

While the notion of "behavioral strategy" is of rather recent origin (Lovallo & Sibony, 2010), the use of psychology in strategy research started decades ago. Thus, the behavioral theory of the firm (Cyert & March, 1963; Gavetti et al., 2012) is often seen as an important source theory for strategy. Work on dominant logics (Prahalad & Bettis, 1986), competitive interaction attention (Ocasio, 1997) and the role of various cognitive constructs held at the firm or top manager level for competitive rivalry (Porac and Thomas, 1990; Lant and Baum, 1995) and strategic interaction (Chen, Smith & Grimm, 1992) are framed as contributions to strategic management. Although psychology-based, or at least psychology-inspired, work on the role of aspirations (Greve, 1998), goals (Lindenberg & Foss, 2011), sensemaking (Weick, 1995), routines (Cyert & March, 1963), decision theory (Kahneman and Lovallo, 1993), hubris (Bollaert and Petit, 2010), top management teams (Hambrick and Mason, 1984), and learning (Levinthal and March, 1993) may be framed as contributions to organization theory, change, and innovation, such work has distinct strategic implications (cf. Powell et al., 2011). However, these streams are also quite heterogeneous, raising the issue of what is the core of behavioral strategy (see also Hambrick & Crossland, 2019).

In short, behavioral strategy addresses the established core issues in strategic management (e.g., CEO and top management team behaviors, entry decisions, competitive interaction, firm heterogeneity) in a particular way, specifically,

1) it is microfoundational (Felin, Foss, & Ployhardt, 2015), building insight into higher-level strategic phenomena from psychology-based insights on the behaviors of individuals;
2) all fields of psychology, as well as relevant parts of behavioral economics and sociology, are potentially relevant;
3) assumptions about behaviors and interactions are to be based in evidence rather than the extent to which they are "elegant" or similar.

Behavioral strategy may then be pragmatically defined as a commitment to understanding the (social, cognitive, motivational) psychology of strategists and other organizational members to the extent that these matter to the key phenomena of interest to strategy research (ultimately, sustained competitive advantage).

APPLYING BEHAVIORAL STRATEGY INSIGHTS TO THE COVID-19 CRISIS

In the following I exemplify how a number of typical behavioral strategy themes illuminate decision making during the Covid-19 disruption.

Sense-making and Covid-19 strategies

The notion of sense-making emerged as an attempt to argue that decisions take place against a backdrop of shared emergent meaning and that it also serves as retrospective developments of plausible images or narratives that rationalize and justify collective decision-making (Weick, 1995). While Weick seems to think of sense-making as a general phenomenon, it is arguable that it becomes of particular importance during a disruption. The reasons lie in the deeply uncertain and ambiguous nature of the initial phases of the Covid-19 disruption as well as in the *ex post* rationalizations of the decisions made in these initial phases. Decision-making in these phases was characterized by "novelty, complexity and open-endedness" (Mintzberg et al., 1976: 250), and lack of clarity on what should be ordered responses to the situation.

Decision-makers did not have a precise understanding of the dynamics of the spread of the disease, the epidemiological parameters, the possible role of superspreaders and how contact patterns mattered, the spatial variation in incidence, and so on. Moreover, how Covid-19 may influence the economy was fundamentally ambiguous (Ehrig & Foss, 2020), as was the full set of possible policy actions and the outcomes of such actions under different scenarios.

Indeed, one can question whether Gaussian risk-management applies at all in a disruption such as Covid-19 (Taleb, 2007), and whether it makes sense to posit the existence of optimal response strategies (e.g., maximizing the life-years saved, minimizing the drop of GNP, taking the number of deaths as a constraint). These may sound like profoundly "philosophical" issues, but ultimately they matter for assessing failures and success *post* the pandemic. For example, have we in fact witnessed massive expert failure during the pandemic (e.g., some wildly unrealistic projections of the number of deaths from the virus; a misguided emphasis on herd immunity)? Have we witnessed massive regulatory failure (notably the failure to keep the virus out of the homes of the old and vulnerable)? Or, is it pointless to blame anyone given the epistemic conditions existing at the onset of the pandemic?

Research suggests that decision-making under these conditions follows a groping, iterative approach as decision-makers seem to literally make sense out of the situation, which certainly describes decision-making throughout spring of 2020. The clear exception to this is those decision-makers who were in fact able to engage in rapid, correct sensemaking, based on prior experience. For example, Taiwan was able to move quickly and successfully because Taiwanese decision-makers read the early signals correctly based on their earlier experience with the SARS virus.

Focused attention and situationally dependent preferences

For those decision-makers without such experience, the initial decision-making, which mainly consisted of implementing lock-downs, took place under a sudden and drastic change of how events

were interpreted. While initially health authorities (e.g., in Europe) had refrained from doing much more than issuing warnings against flying to certain destinations in China or taking arriving passengers' temperatures in airports, political decision makers became alarmed in the first weeks of March by a sudden and surprising spike of hospitalization cases in countries outside of the original Chinese epicenter, which seemed to align with drastic projections of the number of fatalities from the virus (e.g., Walker et al., 2020).

Their attention entirely refocused (Ocasio, 1997), politicians acted swiftly on a minimax (or "precautionary") principle and implemented emergency legislation or made administrative decisions that in most cases (across the world's nations) led to unprecedented lockdowns. Some suggest that the costs of these lockdowns have so far been so high that they exceed the savings in terms of life years valued using standard health economics methods and exceed the resources that political decision-makers are usually willing to expend on saving life years from non-Covid 19 diseases. This may be taken as evidence that decision-makers' preferences are situation-dependent as situations shape attention (March & Shapira, 1992).

Interestingly, these reactions to threats were in some cases not endorsed by epidemiologists. Indeed, in parts of the epidemiological community, obtaining herd immunity (absent vaccination) was seen as natural, unavoidable and not to be resisted. However, politicians face very different incentives than publicly employed health bureaucrats or professors, and could focus largely on the notion that potentially massive deaths because of Covid 19 is politically unacceptable. As a result, the initial coalitions between politicians and top epidemiological and other health experts were strained (e.g., Denmark) and in some cases even broken up (UK). In the sole country that has more or less explicitly followed an official policy of herd immunity, namely Sweden, the coalition between politicians and experts seems to have become stronger, perhaps reflecting escalating commitment in the face of external critique.

Biases, group think and the absence of diverse perspectives

Throughout the Covid-19 crisis, examples can be found of the biased decision-making resulting from more or less automatic application of heuristics that the biases and heuristics literature details (for an introduction, see Kahneman, 2011). In fact, these were an important part of the process of sensemaking throughout the crisis. The heuristic that steered most countries' Covid-19 strategies was to put a heavy weight in decision making on the scenarios that emerge from pandemic modeling (Ehrig & Foss, 2020). This was accompanied by group think potentially aggravated by a mélange of worst-case forecasts, media sensationalism, and general public fear. In turn, this was reinforced by potentially misleading reference points, such as dramatic footage from pandemic epicenters like Wuhan and Lombardy, confirmation biases supporting the choice of such reference points and leading to escalation of commitment to the chosen courses of action. The point here isn't whether the strategies that were adopted were the right ones or not, but rather that conditions were created under which certain strategies were quickly identified as "right" and other perspectives that would allow for the identification of other alternatives did not enter high-level decision-making and public discourse until long into the Covid-19 crisis. As a perhaps telling example, only Norway appears to have created an expert group with a representation of expertise other than medical and epidemiological expertise.

DISCUSSION: IMPLICATIONS OF THE COVID DISRUPTION FOR BEHAVIORAL STRATEGY

Challenge #1: The role of models and forecasts for decision-making

As an approach to strategic decision-making, behavioral strategy suggests that strategists are not likely to be good at using formal models, rules, forecasts and so on. The usual reason given is that most decision-makers are not natural statisticians (e.g., Kahneman, 2011). There is evidence of such behavior during the disruption. For example, some decision-makers took even the most

extreme model projections at face value as not only highly unlikely worst case scenarios but as actual deterministic predictions. Decision makers seemed not to complain about, or understand the consequences of, the lack of error bands around the initial forecasts. However, there is another dimension that is relevant, namely that decision-makers may "over-rely" on those models, data and forecast that are actually available. This is particularly problematic exactly when the problems faced by decision-makers are ill-structured (Mintzberg et al., 1976) and it may be important to also bring intuition and "soft data" to bear on the issues (Foss & Klein, 2012), or when it is important to act very quickly. As an example of how this can be made researchable, Choudhury, Starr, and Agarwal (2020) experimentally examine biased decision-making under uncertainty and in the context of (and partly brought about by) machine learning, and show how specific domain expertise of users can help to mitigate biases.

Challenge #2: The inherently social nature of strategy-making

Our basic strategy frameworks typically slice out and highlight a small portion of social reality, which is justified by asserting that this particular slice (e.g., as represented by the Porterian five forces) has a particularly strong impact on firm performance. However, the disruption reminds us that sometimes the slice expands or even becomes irrelevant as other forces become dominant. In general, strategy-making does not take place in a vacuum, but is a deeply social process. While this may sound banal, it is arguable that strategy research does not take it sufficiently into account. For example, the Covid-19 disruption exemplifies not only, for example, socially transmitted reference points for decision-making, but also the impact of different experts and expert groups, disciplines and particular modelling approaches. These have varying social standing and prestige, so that their influencing on what information will be collected and attended to differ.

In terms of future research, this can potentially be examined by looking at the advice networks of top-level decision makers (cf. Mcdonald, Khanna, & Westphal, 2008). How do major

disturbances that dramatically increase perceived uncertainty and complexity influence such networks? Do we see more or less exclusive reliance on some experts at the expense of other experts (as has, arguably, been the case during the Covid 19-disruption (Ehrig & Foss, 2020))? How does this differ depending on the nature of the disturbance (e.g., natural disasters versus social disturbances, such as uprisings)?

Challenge #3: Uncertainty

The Covid-19 disruption illustrates that strategy in general, and behavioral strategy more specifically, do not have strong frameworks for dealing with uncertainty that goes beyond standard treatments of risky decision-making in various ways (fat-tailed distributions, ill-defined outcome space, diffuse priors, etc.). Existing thinking on ill-structured problems (Mintzberg et al., 1976) and sense-making (Bettis & Prahalad, 1986; Weick, 1995) assume such conditions but do not offer much analytical detail when it comes to describing them. The behavioral theory of the firm (Cyert & March, 1963; Gavetti et al., 2012) may also apply to situations of uncertainty, but it is not clear in this theory whether there are significant behavioral differences between reactions to risk and reactions to uncertainty. Most behavioral decision theory is ultimately based on a probabilistic framework.

Moreover, we do not have good models for describing how situations of deep uncertainty may be transformed into more situations where Gaussian risk management techniques may be applied, what Ehrig and Foss (2020) call "epistemic funneling." This process is not a "natural" one, but (cf. pt. 2 above) a social process in which deliberate information gathering, the reliance on some experts rather than other experts, etc. shape the funnel. A core issue here is how to best manage this process to arrive at precise, early estimates of costs and benefits of alternative strategic actions.

As Ehrig and Jost (2020) points out, while strategy scholars have often argued that the core of strategy is simplification, very little rigorous thinking exists on this issue and it is not clear how

simplification varies with uncertainty. One may expect simplification to reduce as uncertainty increases. However, Ehrig and Jost show that the exact opposite holds, and suggest that adopting the better simplifications may hold the key to sustainable advantage. The intuition is that situations like the Covid-19 disruptions are characterized by so many unknown, interacting factors that trying to get a sophisticated grip on the situation is going to lead to overload and decision paralysis. Acting on simple strategies is better, because it stabilizes the situation. Over time the situation may become so stable that uncertainty is transformed to risk. In the context of the Covid-19 disruption, some may wish to argue that those countries that early on adopted very simple strategies to cope with the disruption (e.g., complete lockdown across the board) fared better in terms of life years saved than those countries that tried to adopt more sophisticated strategies (e.g., compare Norway and Sweden).

However, a key issue is where the initial simple strategies adopted to cope with disruptions come from. Here the potential insights from the second challenge above becomes pertinent. Which coalitions hold power? What is the structure of the advice network that top decision makers are placed in? Which institutional logics dominate?

CODA

The disruption induced by Covid-19 will be studied by social scientists, psychologists, and historians for years to come. As suggested above, behavioral strategy may serve as a highly useful interpretive lens for such endeavors (see Jacobides, 2007, for an excellent model for such studies). In fact, what is particularly interesting about the disruption is that a whole panoply of behavioral strategy insights are applicable, as briefly suggested above. However, the Covid disruption may also point to some areas where behavioral strategy research is currently relatively weak, but where plenty of opportunities exist for interesting behavioral strategy research.

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