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Conviction, narratives, ambivalence, and constructive doubt: Reflections on six expert commentaries

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1 | INTRODUCTION

We are grateful to the authors of six expert commentaries for their thoughtful responses to our article and to the editor George Wright, for the opportunity to respond. It is particularly gratifying to have such valuable commentaries from scholars and practitioners whose work we admire.

At the time of writing our original article, the world was fully in the grip of the uncertainties of a global pandemic. As we write this rejoinder article, there is a land war in Europe. Putin, the archetypal autocratic leader, would rather wage war on civilians, hospitals and schools than risk any challenge to his conviction in his single story of his country's future. Like many other autocratic and hubristic leaders, he has acted successfully to incentivize those who report to him, the Russian media, and much of the wider Russian population, not to offer information or perspectives that can challenge conviction in his narrative. In the terms of

conviction narrative theory, he has constructed his local environment to maintain a divided state in which data, opinions, theories, emotions, and thoughts that do not fit the prevailing narrative exist in a disconnected and ignored state and do not count. The symbolism of the vast space between him and his team in television appearances is striking and telling.

Faced with war, pandemic, climate change, technological disruption, and major migration of human populations, the world is not getting less uncertain anytime soon. Yet the world is not short of leaders in governments and business who avoid uncertainty. Rather than face the anxiety of uncertainty, such leaders flee into the embrace of passionate conviction in a single story of the future, and, as Hodgkinson and Healey (2022) describe, "escalate commitment to courses of action borne of emotional and cognitive fixations that bind them irrationally to a future fundamentally rooted in past and present choices."

Mark Fenton-O'Creevy and David Tuckett contributed equally to this study.

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2 | DEEPENING THE CONVERSATION ABOUT THE ROLE OF EMOTIONS

The commentary from Hodgkinson and Healey (2022) is all the more welcome given their championing of taking emotions seriously in the study of strategic management. In their commentary, as in their prior work, they argue for the importance of moving from a “cold-cognition” model of the strategic decision-maker to attending to the role of emotion in interacting with and modulating cognitive processes in strategy and foresight work.

As an example, they discuss the micro-foundations of Teece's (2007) dynamic capabilities framework. We agree that conviction narrative theory (CNT) can support additional insights into the micro-foundations of dynamic capabilities among other strategy theories. We suggest (as do Hodgkinson & Healey, 2011), that the more important challenge for strategic decision-makers is not the availability of new information, but their emotional reactions to it and the consequences for the attention it gets. In this context, CNT implies that sensing capabilities depend markedly on whether strategic narratives are adopted in an (integrated state) mindset and organizational configuration which supports open curiosity and tolerance of ambivalence.

If, as Teece et al. (2016, p. 26) suggest, capabilities for transforming organisations in response to opportunities depend on “breaking conventional modes of thinking,” then the open curiosity and tolerance of ambivalence associated with negative capability and integrated state is an important precondition for transformation.

We would though suggest, that rather than characterize CNT as part of a “kitbag of tools and techniques,” it is better seen as a potentially unifying perspective for many strategy approaches, offering practitioners insight into the mindful use of tools, calculations, models and other components of future-facing narratives that supports recognizing the useful but fictional nature of the futures they describe, and the emotions they necessarily provoke.

We agree there is a sense in which narratives can serve as a source of bias, because by closing off alternate future options they leave things out. However, bias (as a maladaptive response) is an underlying normative concept, itself suffering from hindsight bias. If we take seriously the significant limits to how far the past helps us to know the future (i.e., if we take radical uncertainty contexts to be quite usual) then many “small world” normative concepts, including that of bias need reconceptualizing. We try to do this in relation to the two paradigmatic mindsets in which conviction is developed (divided vs. integrated state). The maladaptive response, that CNT is concerned with avoiding, is developing conviction in a divided state - thus becoming unhelpfully locked in a single story about the future, be this subsequently shown to be too “optimistic” or “pessimistic.” Second, as Klein et al. (2011) suggest, in conditions of radical uncertainty the emphasis should shift from forecasts and their biases (certainly single forecasts) to “expert gambles with attention” to make sense of an unfolding situation.

3 | ARE CONVICTION NARRATIVES UBIQUITOUS AND MAGIC?

von der Gracht (2022), invites us to consider whether conviction narratives are not more widely important than solely in situations of radical uncertainty. He asks “[w]hat activity in daily life is even theoretically conceivable—without a conviction narrative?” (p. 1). We agree that conviction narratives are ubiquitous. Many of the narratives that allow us to function in our daily lives are largely unattended shared narratives; socially constructed institutional “facts” of our quotidian lives that support the conviction to act, but pass unnoticed until disrupted.

We have, though, chosen to focus on the role of conviction narratives in conditions of radical uncertainty, since it is in these conditions that ambivalence must be faced (or defended against). Certainly, these conditions apply well beyond the bounds of foresight practice. Perhaps one lesson of a recent pandemic and war is that our mundane shared narratives about the world often serve to mask a great deal of the radical uncertainty that we face. As we note in our original article, existing foresight approaches, including causal layered analysis (Inayatullah & Milojevic, 2015), have an important role in deconstructing unattended shared narratives that lead us to treat the future as a version of the past. We hope that the insights offered by CNT about the central role of emotions and ambivalence in developing and modulating conviction may be useful in these endeavors.

Light-heartedly describing the persuasive powers of narrative as “magic,” von der Gracht links our discussion of the role of emotions in developing conviction to the sociology of expectations (van Lente, 2012). Conviction narratives are of course not magic but the product of human sentient and imaginative capabilities evolved because the world humans inhabit required them to navigate uncertainty and to innovate and adapt. This is something that much of normatively based cognitive science and economics has ignored or forgotten while chasing what we see as the phantastic object of making social science like physics, or in imagining brains to be like computers¹. While our understanding of the physical world and how we use it has changed a lot in the last two millennia, the rules governing it have not. Economic or computer models based on stationarity and similar assumptions cannot possibly forecast future events—indeed macroeconomic models consistently miss turning points and struggle with even 2 years ahead.

We agree that there are important links to be made between CNT and the sociology of expectations; both in the central role of emotion and in the importance of treating future expectations, and the narratives that underlie them, as fictional acts of imagination. This idea of “fictional expectations” (in contrast to the idea of “rational expectations” in neo-classical economic theory) has been central to the work of Beckert (2016), whose commentary we now turn to.

4 | NARRATIVES, POWER, AND THE AGENCY OF CALCULATIVE DEVICES

Beckert (2022), who has blazed a trail in sociology demanding attention to “imaginaries” opens his commentary with a rejection of the universal applicability of rational calculation of optimal solutions, a common assumption in economics but a dangerous assumption in most high-impact real-world decision-making contexts. He suggests that “normative theories of optimizing reach their limits when radical uncertainty is taken seriously” (p. 1); he correctly identifies this as an important underpinning basis of our work.

In unpacking some of the elements of our paper, he suggests some areas that require further elaboration, in particular the role of power in narrative adaptation and adoption, the role of technological and calculative devices in narratives and decision-making, and the appropriate boundaries to draw around the productivity of ambivalence.

Turning first to the role of power, we agree that this deserves greater attention in examining the processes through which conviction is built. This question of power is a tacit element, for example, of the story we retell about Nokia. There is little doubt that an important element of power as exercised in most organisations and social groups is the power to frame the terms on which debate is conducted and the narrative elements considered to be legitimate. Similarly, the competing interests of different groups mean that narrative assembly and adoption is often a contested process. There is good work by scholars such as Boje (see e.g., Boje et al., 2016) on narrative resistance to the stories of dominant elites (counter-narratives) and there is scope here for more attention to the role of emotion and ambivalence in how and when such counter-narratives achieve purchase, and to the role of power structures and dynamics in the development of conviction.

We are clear in our account, that narrative elements may include calculations, models, images, graphical representations, and other calculative devices. However, we agree with Beckert, that there is more to be done to explore how adoption of such devices shapes narratives, conviction, and thus action. Good examples include work on the way in which financial models do not just describe markets but actively shape them (MacKenzie 2006) through their influence on dominant market narratives, and the widely accepted view that Moore's law in computing (the doubling of the number of transistors on a silicon wafer every 18 months) quickly moved from a description of past data to a self-fulfilling prophecy, as manufacturers began to use it as part of their narratives about what would be needed to compete successfully (Garud et al., 2014).

An important task in all new theory elaboration is to establish boundaries of applicability. Beckert suggests one such boundary when he argues that ambivalence may be less productive in the context of radical entrepreneurial innovation. Here we disagree, entrepreneurship research is a field that, more than most, has taken radical uncertainty seriously and there is ample evidence that entrepreneurial success is often more in a willingness to pivot, and reuse resources, relationships, and learning in new ways rather than

in pursuit of a monolithic and unalterable narrative about the future (see e.g., Dew et al., 2008; Garud et al., 2014; Sarasvathy, 2001). The effective sensing and interpretation of weak signals required to make timely entrepreneurial pivots seems likely to depend on an ability to tolerate ambivalence and maintain constructive doubt and negative capability.

5 | DEEPENING THE CONVERSATION ABOUT UNCERTAINTY

While, many economists have focused primarily on contexts of (probabilistic) risk at the expense of treating radical uncertainty seriously, John Kay is an important counter example (e.g., Kay & King, 2020). In his (2022) commentary on our article, he opens with a useful discussion of the lack of serious treatment of uncertainty in economics and takes issue with how rationality has been understood in economics. He argues that “when information is imperfect and unequally distributed, it is irrational even to hold, far less act on, subjective probabilities of events and outcomes, which are often incompletely specified and ambiguously determined” (p. 1).

As Langlois and Cosgel put it, much of the framing of uncertainty in business and economics research has been influenced by the oversimplistic interpretation that *by risk Knight meant situations in which one could assign probabilities to outcomes and by uncertainty situations in which one could not* (1993, p. 457). It was, at the time, a way of framing the distinction that fitted in well with the rhetoric of the debate between proponents of an objective theory of probability and adherents to subjective probability theory (e.g., Arrow, 1951). Within the realm of theoretical economics, framing uncertainty as ambiguity and insisting that subjective probabilities can always be articulated *made it possible to ignore situations of uncertainty entirely...By definition, all probabilistic situations are matters of risk* (Langlois & Cosgel, 1993; p. 457). However, this framing of uncertainty ignores Knight's insistence that uncertainty is not just founded in lack of a basis to infer probabilities but also in our inability to know all relevant future states of the world. A further element of Knight's discussion of uncertainty, that has been widely ignored, concerns the problem of categorization and framing. Knight discusses at length the ways in which we comprehend phenomena by imposing systems of categorization and the necessary simplifications and assumptions we make in doing so, arguing that to treat uncertainty seriously it is necessary to grapple with the nature of knowledge.

Considering how decision-makers might find the courage to act in the face of uncertainty whilst avoiding unjustified conviction, Kay suggests the value of a mediating hierarchy perspective (Blair & Stout, 1998) on firm governance. We agree that forms of leadership in which the leader's role “is not to tell everyone what to do but to assemble views and clarify that a decision has been taken and what that decision is at the end of a process of debate and negotiation” (Kay, 2022; p. 2) may be useful in achieving the open debate that can support an integrated state. However, this is clearly not a sufficient condition.

First, Blair and Stout's formulation of mediating hierarchy, developed as a reaction to the dominance of agency theory and its emphasis on shareholder primacy, considers the role of boards of directors to be to balance the claims of competing stakeholders. This brings us back to Beckert's reminder of the importance of power and competing interests in the assembly and adoption of narratives. Whether consequential decisions are taken in a divided or integrated state may depend importantly on the power dynamics within management, teams, boards and groups of stakeholders. Rayner (2012), for example, has written compellingly of how fragile coalitions actively work to ignore or downplay uncomfortable knowledge which could threaten alliances.

Second, as the Nokia example illustrates, avoiding a divided state requires more than plurality of perspectives, it requires attention to the emotional dynamics in a board, or wider organization, that may support or hinder attention to a sufficiently wide range of perspectives, information and interests, regardless of whether they provoke anxiety.

6 | MAKING CONVICTION NARRATIVE THEORY PRODUCTIVE IN FORESIGHT PRACTICE

The final two commentaries we discuss, are from authors combining both a scholarly interest in foresight with deep experience as foresight practitioners (Derbyshire, 2021; Wilkinson & Flowers, 2022).

Derbyshire describes a practice episode which nicely encapsulates the points discussed earlier about the role of power dynamics in supporting or hindering an integrated state. The chairman of the company he describes was highly identified with their modelling approach and unable to countenance debate about its value in the face of failure to predict the credit crunch. Derbyshire relates this to a lack of negative capability in the management team, an unwillingness to tolerate ambivalence and doubt, despite training in this very facet of management.

A key issue may be that individual capabilities are insufficient for deciding and acting in an integrated state (which requires open debate). Organization structures and routines also matter. For example, as we recount in our original article, Nokia paid great attention to their rules of engagement in board and management meetings and to routines for the generation and consideration of a wide range of alternative perspectives and futures before being able to make the bold strategic move to completely refocus their business (Vuori & Huy, 2022).

Wilkinson and Flowers find much to agree with in our article, but take us to task for the phrase “selecting futures.” We welcome the opportunity to clarify our intent in using this phrase. We agree with their (prescriptive) suggestion that crafting better futures requires cocreation by diverse participants who are open to experimentation in dialogue and with appropriate experience and skill. However, in outlining conviction narrative theory as a framework with

applications to foresight work our aim has been primarily descriptive (how decisions are made rather than how they should be made). First, in our account, conviction narratives are not created *de novo*. Rather, generating conviction narratives is a process of *selection*, adaptation, and assembly of narrative components from the local social context. Second, to act organisations and their leaders must choose (however provisionally) a preferred conviction narrative.

Among other interesting insights Wilkinson and Flowers offer from their foresight practice is the value of stressing the status of future-focussed narratives as fictional to reduce anxiety and barriers to engagement and create a safe space. There is an important rider to add to this insight. The anxiety associated with ambivalence and uncertainty must always be faced (or defended against) eventually. As the emphasis moves from debate, in a safely fictional space, to consequential decisions and actions, the anxiety must be re-encountered. Thus as we stress in the conclusion to our target article, foresight work needs to extend to enabling the conditions in organisations that can support making high-impact decisions in an integrated state and that “organizations aiming to benefit from effective foresight need incentives, structures, routines, and leaders that support constructive doubt and ambivalence, that support treating decisions as experiments, and which recognize the need to support the emotion work involved in tolerating ambivalence and not knowing, while still being willing to act” (Fenton-O’Creevy & Tuckett, 2021; p. 12). Otherwise, the risk is that, as too often happens, participants in foresight processes have an intellectually stimulating and emotionally engaging experience but fail to take different actions as a result.

7 | THE NEED FOR FURTHER RESEARCH

Several of the commentaries emphasize the need for empirical research which tests and builds on the conceptual foundation our article has set out. Hodgkinson and Healey call for empirical work to validate our conceptual contribution. Beckert calls for work on a more fully developed and predictive account of the conditions in which narratives become credible. He suggests that work is needed, *inter alia*, to elaborate how the factors which we identify relate to each other and the conditions in which they are more or less important. Derbyshire calls for work on ways in which scenario planning practices can be developed to support negative capability. Von der Gracht highlights the potential to explore the “abuse potential” of conviction narratives, examining, for example, the ways in which narrative tricks and emotion manipulation are used to promote climate change denial.

As we stated in the target article, CNT is a theory of choice under radical uncertainty—situations where outcomes cannot be enumerated and probabilities cannot be assigned Johnson et al. (2020). It is novel in the field because most theories of choice assume that people rely on probabilistic judgments, although, certainly in business and government, such as those already discussed in the target article, the commentaries and this rejoinder, very few contexts actually exist in

which that is possible. Among other issues nonstationary and non-ergodic systems are common. Humans have agency and so are unpredictable and there are information limits, specification limits, generation limits and capacity limits to any kind of Bayesian solution to the formation of beliefs about most situations in which real-world decision-makers find themselves. In our view, therefore, there is overwhelming evidence that clinging to almost any aspect of the normative utility maximising tradition as a micro-foundation for decision-making should be a non-starter, particularly for the field of foresight studies. Indeed, it is argued, in the case of economics, that the divorce from reality is the product of a divided state (Mehrling, 2012).

CNT proposes that using narratives rather than probabilities to make decisions about future action solves two core problems for decision-makers if faced with uncertainty. First, narratives help decision-makers to form beliefs that make sense of situations. Second, they help them to combine beliefs and goals to create action. Narratives for this dual purpose arise from the interplay between embodied individual cognition (i.e., including emotion) and the social environment. So, decision-makers adopt a narrative that feels “right” both to explain the available data and affectively to evaluate imagined futures. The theory places the achievement of conviction at centre stage.

There is extensive evidence from many areas of the cognitive, behavioral, and social sciences to support the components of the basic CNT model, including lab experiments, interview studies, and econometric analyses, some of which were set out in the target paper. There is also extensive evidence to show decision-makers do not, by and large, behave in alignment to the normative principles of neo-classical rationality. A more thorough theoretical and empirical basis for the deeper cognitive principles that CNT uses to explain the four inter-related processes (explanation, simulation, affective evaluation, communication) that narratives enable, has been set out in Johnson et al. (2020), which will shortly be the target for wide-ranging interdisciplinary discussion in Behavioral and Brain Sciences.

Our concern here is future research in foresight and related studies and their ability to improve decision-making. The proposition is that the framework of integrated and divided states can enrich organizational design and research into organizational successes and failure in implementing forward-looking action. A core aim is to shift research focus from exploring whether or not decisions prove successful to how it is they come about—that is, in what state they come about. We hypothesize that organizational arrangements that allow emotional and other conflicts, or failures to be searched out and surfaced, will best protect an organization against the main stumbling block it faces either when trying to reach or monitor decisions made under uncertainty: namely, organizational unwillingness to commit at scale or to capture and learn from relevant data and change course.

If a radical uncertainty, real-world, context is assumed, then agile and effective firms and governments might experiment with organizational systems that try to ensure the conviction underlying decisions that depend on future developments are developed in an

integrated rather than divided State. This would mean taking active steps to monitor and learn rapidly as the outcomes of decisions start to play out. It would also mean shifting organizational culture from safety and blame focused optimal “one shot” decisions towards learning to treat decisions as monitored experiments that play out through time. It seems likely such organizational cultures would have open attitudes towards recognizing emotional textures.

Three types of decisions, which require commitment at scale after looking at the future, might be particularly interesting to study and compare: future pandemic prevention, environmental regulation and climate change mitigation, and economic “levelling up.” Each one involves multiple coordination activities and cannot be done in small measures. By Levelling Up we refer to the efforts many governments are now engaged in across the world to address the significant spatial inequalities that have opened up. In the United Kingdom, as well as elsewhere, there is clear evidence that heavily centralized governance, in part based on anxiety about loss of control and fear of failure, is a major cause of policy ineffectiveness over 40 years (McCann, 2021).

The three types of decisions highlighted are all examples of policies that are necessarily contextualized by radical uncertainty. Past policies have been timid. But inaction is no longer an option. The challenge is that, meanwhile, passivity, cynicism, and hopelessness tend to infuse government departments responsible, who are also risk-averse and captured by optimizing theories about decision-making.

In all three cases, potential generic knowledge of what to do (e.g., formal learning from past efforts) exists. But what it indicates is that although frameworks can be set centrally, implementation has to be at scale and mixed with local knowledge, experimentation and local empowerment (Collier & Tuckett, 2021). Decisions at scale create large opportunity for loss or gain but the center does not know best how to make it work and nor does anyone else. In this context multiple experiments and decentralizing decisions are the way forward but raise formidable issues of control (Ditchley, 2022) and emotion interacting with the political, given the likelihood that policy has to resolve goal conflict as well as potentially create winners and losers.

The CNT hypothesis is that in such situations a successful narrative, governing future action, developed in an integrated state, would include a commitment to nuanced ongoing evaluation, horizon scanning, and rapid learning and that this will generate emotion. For example, many such narratives envisage exciting “tech clusters” exploiting local university knowledge and new businesses or inward investment to create a new Silicon Valley. Whether this aspiration is a divided state “phantastic object” narrative or not, might be evaluated by exploring the depth and detail of the work developed to test the plan and how far appropriately subtle and transparently measurable intermediate steps have been spelt out along with willingness and mechanisms to monitor progress, engage in horizon scanning to identify relevant weak signals (Rowe et al., 2017), and adapt and learn as events alter expectations. In the design of a field experiment, careful attention is given to envisioning the responses to an

intervention in such a way they can be subtly and independently measured. Very little government policy is formulated in this way. Policy (such as energy policy), therefore, is timid, so that the likelihood of enough effort to meet the objective is diminished in an already self-defeating way and, in the past, has tended to switch quickly and incoherently from one approach to another without learning. In such situations, policy based on normative decision theory, such as standard cost–benefit analysis, has proved disastrous.

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ENDNOTE

¹ Bruner, one of the key figures in the cognitive revolution that overthrew behaviourism in psychology has argued that this movement was originally founded on the insight that a core concern of psychology should be how meaning is constructed. He has suggested that, as the brain as computer metaphor took hold, the emphasis shifted from meaning to information processing leading to an under-appreciation of the central role of narrative reasoning in human life (Bruner, 1990). We are story processors, not logic processors (Haidt, 2012).

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