Process Thinking in Strategic Organization

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We need more process thinking in research on strategic organization. Others have said this before in different ways (Pettigrew, 1992; Van de Ven, 1992; Meyer, Gaba and Colwell, 2005), but when one looks at the majority of empirical work published in the major journals in strategy, it seems that the message bears repeating. Even *Strategic Organization,* a journal that represents an ideal outlet for this type of research and which, according to the editors, actively welcomes it, has been able to publish only a limited number of empirical papers that embody what I would call process thinking over the first four years of its existence – in my estimate, no more than one or two papers per year. This essay will summarize the case for more process thinking in strategic organization, suggest some ideas for making process thinking more central, and draw attention to some illustrative studies that have shown the way. I begin however with a definition.

What do I mean by process thinking?

Unfortunately, the word "process" has come to take on such a variety of meanings that communication can be difficult. I do not want to embark on a taxonomic discussion here as others have done this before (Van de Ven, 1992; Van de Ven, 2005; Chia and Langley, 2004), but I do need to specify what I mean by process thinking in this essay. For me, process thinking involves considering phenomena dynamically – in terms of movement, activity, events, change and temporal evolution. This corresponds to Van de Ven's (1992) third definition of process (the other two being process as an explanation of a relationship and process as a variable). This is also intended to be inclusive of weaker and stronger views of process as described by Chia and

Langley (2004). Thus, process thinking may involve consideration of how and why things – people, organizations, strategies, environments – change, act and evolve over time (perhaps expressed best by Andrew Pettigrew [1992:11] as catching *"reality in flight"*) or, adopting a more radical process ontology, how such "things" come to be constituted, reproduced, adapted and defined through ongoing processes (expressed nicely in Tsoukas and Chia's [2002] reference to *"organizational becoming"*).

It is also important to situate process thinking with respect to the subfield of "strategy process research" and also with respect to the growing "strategy as practice" movement. As far as the first is concerned, the "strategy process research" domain appears to cover a broad body of work related to the organizational dimensions of strategy formation, surprisingly little of which involves process thinking. Indeed, that disturbing and paradoxical observation partly stimulated the writing of the present essay. A recent review of "strategy process research" by Hutzschenreuter and Kleindienst (2006) included 227 articles published between 1992 and April 2005. While this exhaustive review included several individual articles that are inspired by process thinking, the emerging overall portrait of strategy process research is not strongly processual in terms of understanding the temporal dynamics of strategy-related phenomena. Rather, the review emphasized above all the nomothetic relationships between strategy context, internal organizational processes, content and outcomes, where process is most often reduced to a variable (e.g., the extent of use of formal planning). Hutzschenreuter and Kleindienst's (2006) review is a careful piece of work that is faithful to the dominant orientation of the material it draws on, but that material is not imbued by process thinking.

In contrast, the "strategy as practice" perspective (Whittington, 2003; Jarzabkowski, 2005, Johnson et al., 2007) with its focus on strategy as "something that people do" and with its

orientation towards the detailed description of these activities generally embodies process thinking, despite some explicit distancing from prior strategy process work of the type described in the previous paragraph (as noted also by Chia and McKay, 2007). The strategy as practice school of course adds a focus on micro-level activities and practices. However, process thinking as defined here does not necessarily demand a micro-focus and can be applied to temporally evolving phenomena at a variety of different levels (individual, organizational, sector, field), including phenomena related to strategy content issues.

Why process thinking is needed

We need process thinking because traditional cross-sectional models provide a partial picture of the world that evacuates the role of time (Tsoukas and Hatch, 2001) and assumes an equilibrium state (Meyer et al., 2005; Bromiley and Papenhausen, 2003). The presence of equilibrium is itself belied by the very attempts to apply such models to influence dependent variables such as financial performance or competitive advantage.

The need to incorporate dynamic dimensions has been identified not only by those who have invested heavily in process thinking, but also by the field's most influential producers of cross-sectional theory. For example, in his well-known article on the dynamics of strategy, Porter (1991: 95) noted: *"While there has been considerable progress in developing frameworks that explain competitive success at any given point in time, our understanding of the dynamic processes by which firms perceive and ultimately attain superior market positions is much less developed."* He called for historical research to fill that gap. Barney (2001: 53) further confessed that his formulation of the resource-based view of the firm (Barney, 1991) implicitly assumes that a firm that possesses valuable, rare, inimitable and non-substitutable resources will automatically see which strategies it should choose and will be able to implement them

instantaneously. He concludes that there is a need to incorporate the behavioural (and thus processual) phenomena of choice and implementation into resource-based models.

In sum, while cross-sectional or "variance" theories (Mohr, 1982) are clearly useful for laying out the systemic patterns of relationships surrounding organizational phenomena, they do not provide the temporally embedded accounts that enable us to understand how such patterns come to be. Yet, in practical terms, this is probably the most pressing issue – especially for those who seek guidance on how to improve their performance. Variance-based generalizations can even be misleading in such contexts because they ignore the non-linear effects of action under complexity: actions to improve performance engender reactions that feed back into further actions, often with consequences that such models do not and simply cannot capture. To take a simple example, the observation that organizational size is correlated with performance might lead to a conclusion that small organizations should merge with others to become larger. However, such a facile inference ignores the complex process steps required to achieve that result – steps that will involve the expenditure of material resources, political negotiations, the possible destruction of existing organizational cultures and activity systems – all of which may render the economies of scale displayed in the static cross-sectional models elusive, or at least extremely expensive (Sirower, 1997).

In other words, there is an elephant in the room and it is process. How then to proceed?

Thinking processually

I review here several angles for developing process thinking and illustrate these with some examples. This review is not intended to be exhaustive but provides examples of how process thinking has been and might be more deeply incorporated into research on strategic organization.

Tracing back. A first angle derives directly from the discussion in the previous section. If certain features of strategic organization are associated with performance, then let us look back to see how those features came to emerge *processually*. This requires investment in historical studies of organizations and the tracing of the processes by which they arrived at their favourable or unfavourable positions. Such work may build on cross-sectional theories while adding the dynamic dimension. For example, Siggelkow's (2001; 2002) studies of Liz Claiborne and Vanguard complement work on strategic fit and configurations by showing how strategic elements come to be assembled and disassembled over time. Other studies have contributed to the elaboration of the resource-based view and the dynamic capabilities perspective by illustrating the idiosyncratic processes by which firms cumulate resources and capabilities over time (Collis, 1991; Raff, 2000; Rosenblum, 2000). Processual studies of resource utilization and development over time have shown how firms may sometimes take ordinary and apparently valueless resources and combine them to create value through "bricolage" (Baker and Nelson, 2005), or build a business starting from resource inimitability rather than resource value to develop a unique advantage (Miller, 2003)

Following forward. A second angle is complementary to the first. Instead of working backwards to understand the organizational actions and conditions that generated patterns in the present, follow the ramifications of current events or actions into the future. Examples of this type of work in the field of strategic organization include studies of strategic change. For example, Balogun and Johnson (2004) traced over a full year the way in which middle managers made sense of a major restructuring. Another impressive example of process analysis of this type is Cardinal, Sitkin and Long's (2004) longitudinal study of the evolution of organizational control over the first 10 years of a company's existence. This study illustrates how managers act to

maintain their control system in balance between formal and informal features, resulting in a dynamic cyclical pattern over time as successive managerial moves aimed at correcting imbalances drive the organization in the opposite direction – potentially stimulating an opposite imbalance. The cyclical evolution of organizational phenomena over time in the face of opposing forces is an important revelation of process analysis that is invisible in cross-sectional models. Burgelman's (1991, 1994, 2002) successive studies of Intel using evolutionary theory also illustrate this phenomenon. While the earlier studies show a balance between autonomous and induced strategic processes, the 2002 study shows how extended emphasis on induced processes may weaken the autonomous processes that might enable organizational renewal, generating a need for a rupture and major readjustment. Dialectic tensions that may lead to cyclical oscillation are also visible in Denis et al.'s (2001) studies of the dynamics of change in pluralistic settings.

Outcomes as inputs. A third and related angle to stimulating process thinking is to take what are usually viewed as "outcomes" and consider them explicitly as inputs. Since managers are encouraged to monitor performance and to act on that knowledge, such cybernetic and teleological dynamics are to be expected, generating patterns that may or may not stabilize depending on the accuracy of managerial diagnoses, the types of actions they generate and the delays required for adjustment. Using a simulation model, Sastry (1997) showed how in the context of radical transformation, repeated and increasingly chaotic change tends to occur when organizations respond too quickly to performance assessments that suggest a lack of fit with the environment. Holmqvist (2004) traced qualitatively how performance assessments influenced shifts between exploitation and exploration learning modes. Miller (1990) examined how long periods of success might ultimately lead to failure by reinforcing a narrow view of how performance is achieved. In summary, while some process researchers have emphasized the

importance of relating processes to outcomes (Pettigrew, Woodman and Cameron, 2001), we should not forget that "outcomes" are often rather artificial staging points amid never-ending processes and they can be analyzed as such.

Nouns to verbs. A fourth angle for generative process thinking is the classic one suggested by Weick (1979) – turning nouns into verbs: organizing rather than organization, strategizing rather than strategy, structuring rather than structure, innovating rather than innovation. The use of gerunds immediately adds movement to an initially static and well defined object forcing consideration of how that object is achieved over time, and fixing the researcher's attention on activities and events rather than relationships between things. Building on Weick (1979; 1995), this kind of thinking is reflected in studies of sensemaking and sensegiving among strategists (e.g., Gioia and Chittipeddi, 1991; Rouleau, 2005; Maitlis and Lawrence, 2007). More generally, it also lies behind much of the work in the strategy as practice area. For instance, Dougherty's (2004) study of innovation and Mantere's (2005) study of championing both published in *Strategic Organization* show how organizational participants do activities that contribute to effective product innovation in the first case and strategic novelty in the second. Both of these studies also devote attention to the recursive or adaptive nature of lower level practices (Jarzabkowski, 2004) and how these may be encouraged or constrained by the practices of managers at other levels.

Destabilizing stability. This suggests a fifth related angle for process thinking: focus on phenomena that are usually considered to be invariant and examine how they are constituted through ongoing processes. For example, Feldman's (2000, 2003) qualitative ethnographic studies of the enactment of *routines* describes in depth how they are recursively reproduced and yet adapted each time they are invoked. Her studies as well as those of other researchers (e.g.,

Howard-Grenville, 2005) clearly have important implications for resource-based, knowledge-based and evolutionary views of the firm. Since routines are often seen to be important sites for competitive advantage (Nelson and Winter, 1982), there are opportunities for better understanding how they are maintained, adapted, and replicated in new contexts. *Identity* is another apparently stable concept that has been problematized in recent work (Gioia, Schultz and Corley, 2000). For example, Maguire and Hardy (2003) use the concept of "identity work" to show how individuals involved in interorganizational collaboration discursively construct identities that enable them to maintain legitimacy both with their constituent organizations and within the collaboration itself. Indeed, adding the word "work" to any apparently static and structural concept is an interesting device for forcing consideration of how human agency might operate on it. Recent interest in institutional entrepreneurship is essentially doing the same kind of thing – examining how institutions which are usually considered to embed and constrain organizations and individuals may become objects of agency whose evolution is then described processually (Maguire, Hardy and Lawrence, 2004; Greenwood and Suddaby, 2006)

Listening to language. A final angle for process thinking extends the idea of discursive construction also present in some of the studies mentioned above by focusing specifically on how certain strategic concepts come to acquire currency through language or rhetoric. Oakes et al's (1998) study of how the language of business planning penetrated the Alberta museum sector is one example. Another is Samra-Frederick's (2003) conversation analysis that showed the processes by which a strategic "weakness" was constituted not through a SWOT analysis but through micro-rhetorical moves in conversations among senior leaders. These last two studies (as well as some of those discussed under other "angles") are examples of "strategy process research" that are truly processual.

Methods for process research

Empirical research that incorporates process thinking can take a variety of forms. One form involves the use of agent-based simulations that allow understanding of the dynamic consequences of quite simple sets of basic relationships. Another form involves the use of time series data and event-history analysis (e.g., Monge, 1990; Van de Ven, 1992; Van de Ven, 2005). However, as I have noted previously: *"Quantitative time series constitute rather coarse-grained outcroppings of events and variables over time: they skim the surface of processes rather than plunging into them directly"* (Langley, 1999: 705). With some exceptions, I am often disappointed by the thinness of the representations of process contained in these approaches, although impressed with their theoretical elegance and parsimony.

In contrast, forms of process research that incorporate narrative, interpretative and qualitative data are more immediately appealing for the richness of process detail they provide. In practice, such research is quite hard to do well and the added richness or accuracy may come at the sacrifice of some parsimony and generality. I have elaborated on some of the particular challenges of this type of research elsewhere (Langley, 1999). Nevertheless, when it is done well, it has an incomparable capacity to communicate process understandings in ways that resonate with experience while incorporating theoretical insight.

Interestingly, my perhaps rather subjective reflections about the attractiveness of process research in general and of its qualitative rendering in particular seem to be shared by at least some significant others. Bartunek, Rynes and Ireland's (2006) survey of the most "interesting" empirical articles in management as assessed by members of the editorial board of the *Academy of Management Journal* came up with a list of 160 articles, 17 of which were mentioned more than once. An examination of those 17 articles reveals that ten of them are clearly process studies

– their data are temporally embedded and the theorizations developed are also sensitive to time. Seven of these ten rely almost exclusively on qualitative data and analysis. Of the remaining three, one combines a qualitative narrative with an event-history analysis to model institutional change among law firms (Sherer and Lee, 2002), one examines the mutual influences between academic and professional literatures on culture over time using conceptual mapping and textual analysis of a large corpus of articles (Barley et al., 1988). The third is an award-winning article on competitive interactions in 41 industries over seven years (Ferrier et al., 1999). Finally another four articles among the original set of 17 use qualitative data that have processual elements, although the authors mobilize them to develop variance models. In other words, only three articles of the set of seventeen are quantitative variance studies – illustrating a clear gap between what some academic readers seem to find interesting and what most researchers actually seem to be doing (Phelan et al., 2002; Hutzschenreuter and Kleindienst, 2006).

Closing the gap

This gap confirms that there are still many opportunities for developing process work in strategic organization and that the academic community welcomes and appreciates such thinking. What is less certain, however, is whether significant segments of the academic community will be able to move away from the comfort-zone of variance studies or "process as variable" research to begin to close the gap. Current patterns of research practice appear to be quite deeply ingrained. While mainstream writers on research methodology for strategic management have called for more and better qualitative research and for more attention to dynamic phenomena (Hitt, Boyd and Li, 2005), their messages are embedded in an overall discourse that seems to emphasize above all the need for increased rigor and sophistication in construct development and in statistical analysis (see also Hitt et al., 1998). One cannot disagree with these efforts to improve research

quality. However, the dominant focus on quantitative methodology encourages young researchers to deepen their training and personal investment in these methods, rather than to consider alternative process-based research approaches that may require a different set of skills.

This orientation is enhanced by the convenience and availability of standard archival databases that offer broad scope for elegant number-crunching, but limited richness for detailed process understanding. Based on an analysis of articles published in the *Strategic Management Journal* and *Academy of Management Journal* since 1991, Crook et al. (2006: 418) showed that the use of secondary data bases has generally increased over time. In a comment that illustrates the values of the field, they note: *"It is unlikely that reliance on archival databases will go away anytime soon because scholars (especially those new to the field) need to publish, and to do so quickly. Using archival databases can be relatively less time-intensive than other methods. Additionally, obtaining primary data from executives (where strategic decisions are made) can be a daunting task. Yet the difficulty of obtaining such data does not reduce its importance or justify the lack of research effort in this area. We still need a better understanding of how strategy is created. Perhaps this task falls mainly to senior scholars, given the pragmatic issues facing their junior colleagues."*

It is true that the incorporation of process thinking into research on strategic organization often requires primary data and the investment of time (although particular kinds of archival data may also be useful as shown in some of the examples). And, yes, the development of process thinking requires the attention of senior scholars. However, there is something profoundly ironic and disturbing about the idea that for "pragmatic" reasons, budding teachers of strategy should stay away from the messy reality of strategy as practised in the field. If process research is seen as something that one does only when one's academic legitimacy is already well-established then

the prospects for the development of process thinking will remain limited (not to mention the prospects for teachers who have had some contact with the phenomena they are teaching).

Senior scholars need to encourage junior colleagues and students to become involved in process work, and provide the training and support needed to do it well. The pragmatics of doing process research are perhaps a little different, but they are not unmanageable. Historical studies or studies of micro-processes may not require long term investment in data collection. Faculty with longitudinal research programs can integrate students into them. Students can begin their empirical research earlier than is usual in their doctoral programs. Also, programs of longitudinal research do not simply produce output at the end, but they throw off publication projects at various stages, creating progressively richer contributions. Process thinking is certainly not incompatible with early publication and a successful career as shown by the contributions of researchers trained in schools where faculty have made strong early commitments to such work[1]. In addition, resources for process thinking are becoming more widely available and offer support to those who would like to take up the challenge.[2]

In other words, it can and should be done. So let us get on with the job. May we hope that in five year's time, a survey of the most interesting articles in management will include several process studies published in *Strategic Organization*.

[1] To name but a few: Robert Burgelman trained at Harvard University, Kevin Corley trained at Pennsylvania State University, Quy Nguyen Huy trained at McGill University, Cynthia Hardy trained at Warwick University, Leslie Perlow trained at MIT, Raghu Garud trained at University of Minnesota.

[2] Professional development workshops on process research methods have been held at the Academy of Management meetings since 2004 (see http://www.processresearchmethods.org/) and have emphasized both qualitative and quantitative methods for process analysis. Also, researchers interested in "strategy as practice" have developed a wide variety of activities and resources relevant to the issues described in this paper (http://www.s-as-p.org/).

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