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'Processualizing' Innovation Research: A deconstructive analysis of organizing while innovating

Introduction

“How can theorizing on organization structures be aligned with the facts of the innovation journey?” Managing the innovation journey, where the journey is defined as “a sequence of events in which new ideas are developed and implemented by people who engage in relationships with others and make the adjustments needed to achieve desired outcomes within an institutional or organisational context” (Van de Ven, et al., 1999, p. 181), is vexing and fraught with ambiguity. Empirical research is replete with happy accidents, serial failures, unforeseen mutations, confrontational exchanges and a gleeful determination to upset the status quo [Examples include (Dougherty & Hardy, 1996); (Jelinek & Schoonhoven, 1990) and (Thomke, 2003)]. And yet, current theories on innovating appear inadequate for capturing and explaining the dynamic process of innovating.

Predominantly, theories on organizational structures have been developed to explain ‘stability’. Due to emphasis on order and control, theorists are often handicapped when they want to understand the process of innovating. Put differently, theorists construe stability and change ‘as antitheses where one works at the expense of the other’ (Hernes, 2008, p. 110). As Weick (1998, p. 543) aptly puts it, “Since the term “organization” itself denotes orderly arrangements for cooperation, it is not surprising that mechanisms for rearranging these orders in the interest of adaptation have not been developed as fully.”

This suggests that the theorizing process investigating organizing while innovating has been the theoretical equivalent of square pegs for round holes. Therefore, there is a need to distance ourselves from the caricaturist theories which graft mechanisms for ‘process’ onto concepts that basically are built to explain order. For this, we have to undertake a concerted effort to rebuild our theories by privileging ‘process’.

In this paper, I initiate this rebuilding effort by extracting ideas from the philosophical oeuvres of William James (1909/2011), Alfred North Whitehead ([1929] 1978); and Henri Bergson ([1911]/1998); squeezing the ideas for meaning. This meaning is then infused into a theoretical reconceptualization which is sensitive to process, embraces complexity and makes links between abstract analysis and lived experiences. I then apply these insights to ‘problematize’ (Alvesson & Karreman, 2007, pp. 1265-66) existing theories of organizational structures guiding innovating. Put differently, by embracing a theorizing approach which focuses on ‘organizational becoming’ as opposed to organizational ‘being’, organizational structures guiding innovating are re-conceptualized as an emergent property of change. Aligned with the sub-theme, such an approach, I believe, would allow an integration of the creative and collective effort driving the co-creation process while innovating.

Challenges in Organizing for Innovation

Executing an innovative idea, within an organisation, begins with the constitution of a team. Existing theories on innovation suggest that the innovation capacity of teams is a function of both individual skills and the working relationship between them (Edmonson & Nembhard, 2009); (Govindarajan & Trimble, 2010, p. 31). Therefore, organizations must pay particular attention while constituting the team responsible for innovating. Organisational structuring defined as “configurations or arrangements which enable the integration of expertise and information across organisational silos created by functions, business units and distributed company locations” (Edmonson & Nembhard, 2009, p. 125) is vital while implementing innovation. Organisation structuring can thus constraint or unleash the flexibility to innovate within an organisation. However, such theory offer little or explanation for the process through which this constraint or liberation is realised. Since, the execution of all innovations emanates within an organizational structure, an understanding of how this structure came to be and the subsequent impact of both the innovation process on the structure and vice versa becomes an interesting point of entry for our investigation into the dynamics while innovating.

Beginning with Burns and Stalker’s (1961) ‘The Management of Innovation’, organizational theory pertaining to innovation management has largely been anchored in what Poole and Van de Ven (2010) would call a substantial ontology, where organizations are conceptualized as social entities or structures. Subsequent innovation research has restricted its focus, primarily to the study of innovation strategy at the industry level [e.g. (Burgelman & Sayles,

1986) and (Van de Ven, et al., 1999)]. Such studies offer very little help to general managers in illuminating what actually went right or wrong while implementing the innovation. Early scholars like Burgelman (1983) and Kanter (1983) who have looked into the organisational issues while innovating within corporations have thus far only managed to scratch the surface of general management issues concerning innovations. They suggest that management should keep finding ways to remain flexible, to permit sufficient power to concentrate on innovation, to build access to technical competencies and to listen attentively to the views of those directly responsible for implementation – valuable but not particularly useful to general managers navigating the innovation journey.

Business research has been pre-occupied for about three decades trying to resolve the ‘uneasy alliance’ (Clark, et al., 1985) between the demand for efficiency and desire for innovation within organizations. If one assumes that organizations are primarily designed for efficiency and not innovation (Galbraith, 1982); (Dougherty & Hardy, 1996); (Govindarajan & Trimble, 2010), then, it is not difficult to see why people who are simultaneously assigned to sustain excellence in on-going operations as well as execute an innovation, fail at innovating or in both. This assumption had been supported by empirical research which concluded that structures and strategies in mature organizations reinforce existing practices and are therefore hostile to creativity (Burgelman & Sayles, 1986). James March (1991) has characterized this dilemma as one between exploration and exploitation. According to March, a strategy reliant on exploitation without exploration leads to obsolescence whereas the alternative strategy relying on exploration without exploitation could be a route to elimination (March, 2008, p. 109). In trying to prescribe a balance, Dougherty and Hardy (1996) suggest that mature organizations must successfully make the innovations – to- organization connections in three key areas (Dougherty & Hardy, 1996):

- a) make resources available for new products,
- b) provide collaborative structures and processes to solve problems creatively and connect innovations to existing businesses, and
- c) Incorporate innovation as a meaningful component of the organization’s strategy.

Research on organizational structures reveal that one of the early advocates for a dedicated innovation team was Jay R Galbraith. Galbraith (1982, p. 6) suggested that organisations which want to innovate or revitalise themselves would require a bifurcation of organisational structures and functions creating an operating organisation and an innovating organisation.

The rationale for such a division is that structures and systems within an organisation are conventionally designed to support functional excellence rather than cross-functional team effectiveness (Edmonson & Nembhard, 2009),

When this bi-furcation theory which I call the ‘Cartesian theory on innovation structuring’ was tested on the field by organizational research scholars, the theory failed to live up to empirical scrutiny. For brevity’s sake, I shall restrict my in depth analysis to one particular study. The study which I use to illustrate my analysis is ‘Sustained Product Innovation in Mature Organizations: Overcoming the Innovation to Organization Problems’ by Dougherty and Hardy (1996). Dougherty and Hardy visited firms and interviewed executives to study their respective experiences with innovations and conclude:

“..... innovation owed much to the efforts of individuals who used their organizational positions to acquire resources, establish collaborative processes and structures, and create strategic meaning for individual projects “ (Dougherty & Hardy, 1996, p. 1134).

On the problem of organizational design, the researchers observed that despite, ‘Cartesian’ innovation teams being set up within these organizations, as proposed by Galbraith, they could not connect product innovations with their resources, structures and strategies effectively (Dougherty & Hardy, 1996, p. 1124). Why? Dougherty and Hardy write:

“Structures and processes nurtured functional fiefdoms and conservative decisions rather than encouraging cross-functional activity and risk taking. Even though collaborative structures existed, they did not really lead to collaborative working processes, because of power imbalances and a lack of commitment to collaboration. So although cross-functional teams were formed, they were often incomplete and ineffective. And there were no organization wide mechanisms for weaving new products into on-going production processes.” (Dougherty & Hardy, 1996, p. 1140)..... “In summary, the anti-innovation configuration of resources, processes, and meaning in these firms made sustained innovation very unlikely, and even separate innovation projects were vulnerable” (Dougherty & Hardy, 1996, p. 1146).

Dougherty and Hardy’s observations might not have come as a surprise to “process scholars” (this concept is elaborated upon later) investigating innovation. Writing about the core problems which prevent organisations from developing and maintaining a culture of innovation and entrepreneurship, Van de Ven (1986) characterised the problems associated with the ‘Cartesian theory on innovation structuring’ as the structural problem of managing the part-whole relationships. According to Van de Ven, such a problem emerges from the proliferation of ideas, people and transactions as an innovation develops over time. He writes:

“A common characteristic of the innovation process is that multiple functions, resources and disciplines are needed to transform an innovative idea into a concrete reality – so much so that individuals involved in individual transactions lose sight of the whole innovation effort. How does one put the whole into the parts?” (Van De Ven, 1986, p. 591).

Therefore, we can see that a simple separation of the organization units into a ‘performance engine’ and ‘innovation engine’ (Govindarajan & Trimble, 2010) would not solve the innovating problems within organization.

The call for a more ‘dynamic’ organizational analysis emerged in the 1990s with the rise of cautious, and perhaps more realistic reformers like Schoonhoven and Jelinek (1990). For them, innovativeness hinges on the ability to create what they call a “dynamic tension” between chaos and structure, mixing freedom with tight controls. Rejecting “unstructured adhocracy”, a term coined by Mintzberg (1979), they advocate a “hybrid situation”; systematic approaches but not bureaucratic rigidity, authoritarian management, or overemphasis on the “forms”. Whatever else one makes of such advice, it is immediately apparent that the idea of a *de-bureaucratized organization* borders on the oxymoronic and threatens implementers with a seemingly insurmountable set of practical contradictions (Kunda, 1997). “Corporate culture”, was thus introduced as a way out of this impasse. However, bundling the innovating experience into a single phrase “corporate culture”, desperately requires unpacking because it is the very nature of this process that makes innovating possible and separates good from bad innovation practices.

This unpacking was taken up by Brown and Eisenhardt (1997) who compared successful and less successful firms to show that successful multiple product innovation blends limited structure around responsibilities and priorities with extensive communication and design freedom to create improvisation within current projects. From their analyses, they developed the ideas of ~”semi- structures,” “links in time,” and “sequenced steps”; to crystalize the key properties of these continuously changing organizations and extend the thinking about complexity theory, time-paced evolution, and the nature of core capabilities (Brown & Eisenhardt, 1997, p. 1). Despite the introduction of new concepts, the researchers concentrating on the ‘what’ fail to explain how and why these concepts emerge.

Davis, Eisenhardt and Bingham (2009) argue that organizations with too little structure are too confused and lack efficiency, while organizations with too much structure are too constrained and lack flexibility. By contrast, moderate structure balances between these two

states is likely to be high performing (2009, p. 416). This argument for structural balance is also supported in other areas of organizational studies in which loose coupling, ambidexterity and improvisation are key, including creativity, innovation and organizational change (Tushman & O'Reilly III, 1996). .But this finding just perhaps, validates the importance of structures within organizations, offering no explanation for how they came to be or how they impact the phenomena being investigated.

The leitmotif of academics theorising about innovation and change based on a substantial ontology, has been the neglect of dynamism; a dynamism which arises from assorted interconnected choices: choices with respect to work routines, decisions, organizational structures, capabilities, and resources in inherently uncertain conditions. To paraphrase Whitehead's (1925, p. 86) colourful expression, in almost all of these theories, innovation and change is construed as an incident which shoots across a background of endurance within an organization.

The recurring dilemma articulated in the structural theories discussed so far, is between the autonomy requirements of the innovating participants and their situatedness within organizational and inter-organizational settings that demand integration of project activities within organization command and control routines and/or inter-organizational coordination efforts. While traditional contextual views with emphasis on the impact of structures on social interaction can be inferred from structural theories, the role of agency in giving life to structures and contexts can only be teased out using 'processual' theories.

The growing awareness, within the 'static' camp, for a need to study the dynamics of the phenomena being investigated was evident in a recent article, by Davis and Eisenhardt (2011), where they acknowledge that organizing involves dynamic organizational processes associated with collaboration partners and leadership roles (rotating leadership roles) that solve critical innovation problems related to recombination across boundaries. However, much of this research is still grounded in what Chia (1999) might refer to as an 'entitative' thinking, where the a priori assumption is of the world as consisting of entities, whose interaction constitutes processes.

Processual Analysis and Organizational Studies: A sketch

'Organizations' have been conceptualized in two competing perspectives in organisational studies; namely, the substantial and the processual. The substantial perspective regards an

organisation as a social entity or structure where as a processual perspective posits that organisations are composed of organising processes (Tsoukas & Chia, 2002). The substantialist view of an ‘organization’ “foregrounds organizations as clearly circumscribed, legitimate objects of analysis, whilst at the same time deny the status of the network of ‘organizing’ from which this theoretical object has been abstracted” (Chia, 1997, p. 691). The processual view of organizations embraces the dynamic and precariously balanced nature of social reality by adopting transience, flux and transformation over the dominant notions of permanence, stability and endurance which have been the dominant characteristics of discourse in organizational theory. Therefore, adopting a particular perspective can have profound impact on the research and understanding of organizations. An explicit analysis of these underpinnings is required to keep organizational studies alive and vital. To paraphrase Whitehead’s (1925, p. 17) concern, if organizational studies are not to degenerate into a medley of ad hoc hypotheses, it must become philosophical and must enter upon a thorough criticism of its own foundations.

This observation requires some clarification. The substantialist ontology in organizational studies stems from a neo-positivist view of the social world as a concrete structure or being, thus encouraging an epistemology (relationship between reality and the researcher) which emphasizes the importance of studying the nature of relationships among the elements constituting the structure (Morgan & Smircich, 1980). The assumption is that a manager versed in relevant theory would know that doing x under conditions α will lead with reasonable certainty to results β . This tendency arises from a modernist/ representationalist view of knowledge in which the central task of research is the accurate description and representation of reality (Chia, 1996, p. 6). Therefore for a neo-positivist, it is possible to accurately perceive and describe reality (though linguistics has challenged this notion).

There are severe limitations of adopting a neo-positivist view in organisational studies. One such major limitation is that in experimental activity the scientists are not the producers of the causal laws they identify but only the causal agents of the patterns of events, generated under conditions of closure, through which they gain access to causal laws. But causal agents can only be identified in closed systems. Since social science deals with the open world, it is impossible to construct conditions of closure and that means that the goals of social sciences are primarily explanatory and not predictive (Tsoukas, 1989).

The processual ontology on the other hand stems from a pragmatist/interpretivist view of the social world as constituting of processes which are constantly becoming. For pragmatists, reality is not what draws us to the scientific process of inquiry. Rather it is only when a number of realities begin to compete for legitimacy that the scientific approach emerges as a useful reference point for adjudicating between differing accounts of reality (Chia, 1996, p. 15). In contrast to the neo-positivists who privilege thinking in terms of discrete and static entities, events and effects rather than relationships, movement, process and emergence, pragmatism allows process theorists adopt a style which is able to accommodate the notions of causality as that which allows the strong linking of one discrete aspect of our phenomenal experience to another.

A useful metaphor to visualise the ontological difference between the two perspectives was the crystal and smoke metaphor used by Taylor and Van Every (2000, p. 31). Taylor and Van Every equate the organizations conceptualized in the substantialist ontology to crystals which exhibit repetition, regularity, redundancy, and the preservation of many distributed conversations whose outcomes are unpredictable and transient. Organizations, it is said are:

“talked into existence when portions of smoke like conversation are preserved in crystal-like texts that are then articulated by agents speaking on behalf of an emerging collectivity” (cited in Weick, 2006, p. 1725).

Organizations, in other words are a product of the ‘translucency of realisation’ (Whitehead, 1925, p. 171). By this I mean, reified outcomes of an “initially undifferentiated flux of fleeting sense impressions, the brute aboriginal flux of lived experience, from which attention carves out and conception names” Chia (2000, p. 517).

In order to comprehend how the collective activities of a group of people got reified into a firm or organizational level analyses, we need to understand the difference between ‘organization theory’ and ‘theory of organizations’. Rapoport and Horvath (1968) make this invaluable distinction. Whilst a ‘theory of organizations’ is what, broadly speaking, may be described as a sociological approach to organizations, organizational theory, for Rapoport and Horvath, is better understood as the study of organizational principles applicable to any system exhibiting ‘organized complexity’. Viewed thus, organization theory is an extension of mathematical physics drawing from fields as diverse as cybernetics, topology, decision theory, information theory and game theory as well as social theory. As Chia (1996, pp. 13-14) writes:

A seldom realised issue with such reification is what Robert Irwin has called ‘compounded abstraction’. The essence of compounded abstractions is found in one of Irwin’s favourite maxims: ‘seeing is forgetting the name of the thing seen’ (quoted in Weick, 2006, p. 1726). As social complexity increase, people shift from perceptually based knowing to categorical based knowing in the interest of co-ordination. The result is that now people know less and less about more and more (Weick, 2006).

It can be seen from the above example that thought is abstract and the intolerant use of abstractions is the major vice of the intellect. This vice is not wholly corrected by the recurrence to concrete experience. For after all, you need only to attend to those aspects of your concrete experience which lie within some limited scheme. It is my submission that organizational studies on innovation have paid too heavy a penalty by falling prey to this ‘Splitting Inversion Model of Discovery’.

In his poem, *Essay on Man*, Alexander Pope wrote:

Know then thyself, presume not God to scan
The proper study of Mankind is Man

Similarly, if we want to understand and design better organizations, we need a better understanding of the organizers, namely the people and how they organize. Prior research reveals that most of the innovation studies focus on organizations neglecting the people and the organizing elements of any intelligent comprehension of reality. Traditionally, bulk of comparative research on organizations has been nomothetic, devoted to discovering law like relationships between organizational characteristics, or between organizational and environmental variables, through the investigation of a large number of organizations. Enamoured by methods transplanted from natural sciences, most social scientists have forgotten that the basic building block in the social sciences, the elementary unit of explanation, is individual action guided by some intention. (Ghoshal, 2005). Such an understanding allows us to ‘problematize’, by which I mean, ‘to challenge the value of a theory and to explore its weakness and problems in relation to the phenomena it is supposed to explicate’ (Alvesson & Kärreman, 2007, pp. 1265-66), theories guiding organizing while innovating.

The deconstructive analysis

Let us re-examine the Brown and Eisenhardt (1997) study which postulated the concepts of 'semi-structure' and 'links in time.' It is clearly evident that the researchers work from a 'substantial' ontology, using the data gathered from retrospective interviews to create concepts. Trapped in this mode of thinking, the researchers favour 'stability' over change and conclude:

“Finally, sustaining this semi structured state is challenging because it is a dissipative equilibrium and so requires constant managerial vigilance to avoid slipping into pure chaos or pure structures” (Brown & Eisenhardt, 1997, p. 29).

Many existing theories of innovating are inadequate because they fail to take account of the on-going activities and the forces sustaining it when a substitute activity is proposed. The concepts which emerge from such theorizing are abstractions which are too distant from local situations to provide explanations for how things evolve. Outcomes of a process are reified into nouns such as organization, strategy, semi-structure and so on, and were not chosen because they could be seen to emerge from processes that make them, for them to re-enter those processes in turn, but because they were implicitly seen as quasi-stable states, forming stable contexts for process (Bakken & Hernes, 2006, p. 1613). The problem with such theorizing is that it might tempt the theorist to naively propose manager intervention which often gets in the way of activities that have their own self-regulation, form and self-correction tendencies (Weick, 1979, p. 8).

When viewed through the processual lens, we begin with the premise that reality is change and the semi-structures are formed by the 'organizing' activities of the actors who try to make sense of the reality and do what they deem 'appropriate'. Hence, what is privileged is the 'becoming' rather than 'being' of a 'semi-structure'. Therefore, contrary to the previous theoretical treatment which reifies and sweeps the complexities of the manifestations of the process under the carpet of 'chaos theory', the process approach allows social scientists, an intelligible conceptualization of this reality. The problem with adapting in organisations such as the one described by Brown and Eisenhardt is that structurally loose enactment is apt to be misread and "tightened" during the reflection and perception that occur in selection. The perceiver will imagine that a more orderly action was responsible for his or her adaptive success than in fact was the case.

Probing for insights through this new approach allows social scientists to explicate the process and the analyse actions by the actors who are impacted and who in turn impact the process. It is this knowledge which is vital for manager's to sustain or eliminate semi-structures if and when required. This is the potential richness of insights that 'hard' process theory (Chia & Langley, 2005) delivers. A 'hard process lens' shows us that orderliness might be overestimated and erroneously given credit for adaptive success. Having been predicted, orderly actions are implemented again in the future, perhaps tightened even more, and suddenly the organisations find itself is out of touch with changes that are occurring and finds itself saddled with an antiquated, tight structure (Weick, 1979, p. 186), which Brown and Eisenhardt 'try' and sustain.

Next let us consider the insights from Burgelman (1983) and Burgelman and Sayles' (1986) research. In this study, the researchers looked systematically and over time at how new ideas gelled within the R&D unit of a large business corporation and chronicled its growth into a fledgling new ventures (Burgelman & Sayles, 1986, p. 7). Using this data, which was primarily gathered by interviewing managers across the various hierarchical levels, they went on to conceptualize a process model of internal corporate venturing (ICV). This process model was conceptualized around 'core processes' which contained key activities of the process and 'overlying processes' which contained, what was labelled 'peripheral activities' (Burgelman & Sayles, 1986). The reason for this distinction was explained thus:

At one level, we would be discussing the "evolving constraints," which change through the development cycle and which comprise such elements as user requirements and demands; the achievement of technical feasibility, marketability, and reasonable cost; external related technological developments; the actions of competitors; changing corporate profitability, "slack," and interests; and other changing environmental forces. At another level, we will be discussing the relatively "fixed constraints" within which the developmental cycle unfolds. These include such elements as corporate culture, values, and the strategic orientations, interdivisional competitiveness, and functional technical criteria applied by the various groups that get involved in the process (Burgelman & Sayles, 1986, p. 13).

This study made a significant contribution to the understanding of how innovation unfolds and what the corporate structures nurturing them look like or should look like. The method deployed, stresses on how and when events occur and who is involved But a major limitation of studies designed along these lines is that after identifying factors such as 'evolving constraints' and 'fixed constraints', they then take their presence as a given in the process without striving to explain why these constraints and activities became or come to become

key and peripheral activities. This tension, which I believe, stems from the strain between the desire to explain a process and account for 'stable states' becomes obvious when the researchers caution thus:

The emphasis on key activities should not, however, lead us to ignore the more peripheral activities that we have observed. We believe strongly that those peripheral activities need to gain in relative importance in order to manage the ICV process better (Burgelman & Sayles, 1986, p. 147).

The problem, it appears to be with what is referred to as deviation amplifying causal loops. When more than one causal loop exists and when some of these loops suggest the system will explode while others suggest the system will remain stable, there is the problem of knowing how to analyse such a situation. The authors seem to ignore the significance of causal loops by prematurely categorizing 'evolving' and 'fixed' constraints thereby ignoring the core ontology of process research in which social reality is fluid and flowing. Had a hard process view been adopted, we would have been able to identify the deviation amplifying loops impacting the process and then truly determine fixed and evolving constraints.

Consider another finding from this study:

The present model, however, proposes that large, resource rich firms are likely to possess a reservoir of entrepreneurial potential at the operational levels that will express itself in autonomous strategic initiatives. Autonomous strategic behaviour introduces new categories for the definition of opportunities (Burgelman & Sayles, 1986, p. 174).

In this case, by accepting the states which were observed in the process, the authors have once again fallen into the 'being' trap. The reason why unexpected manifestations conveniently labelled 'autonomous' occurred was because the researchers neglected actions or dynamics which drive the processes, the consequences of which are the observed 'autonomous' states. Processes cannot be explained just by reference to individual or collective agency. Actions are embedded in contexts which limit their information, insight and influence (Pettigrew, 1997, p. 338). Here, by context, I refer not just a stimulus environment but a nested arrangement of process networks, some of which stabilizes into structures, where the subjective interpretations of actors perceiving, learning and remembering help shape process and in turn, the context. Had a 'strong' process theory been adopted, we would have been able to explain how and why these 'process' led to the observed states. A better illustration of the 'potential', the term process held in this study can be explained using Herbert Simon's notion of recipe.

Simon's (1962) equates recipes with process descriptions, and he contrasts these with state descriptions or blueprints, the focus of Burgelman and Sayles. A state description reads, "A circle is the locus of all points equidistant from a given point." A recipe for that circle would read, "Rotate a compass with one arm fixed until the other arm has returned to its starting point." Recipes provide the means to generate structures that have the characteristics you want. The trick in organizations is to co-ordinate blueprints and recipes. The prototypic question in organizations becomes: given that blueprint, what recipe will produce it? Adapted to organizing for innovating, the question becomes: given our need for a sensible enacted environment, how do we produce it? (Weick, 1979, pp. 46-47)

For uncritical thinkers, the Burgelman and Sayles' (1986) study has the effect of inducing premature abandonment of ideas because even if problems are not being solved, the appearance of progress requires moving on to the next batch of problems. Thus, "old questions are not answered;-they only go out of fashion" (Schon, 1971, p. 142). Not so for Andrew Van de Ven and his colleagues who set up the Minnesota Innovation Research Program (MIRP).

The MIRP was initiated in 1983 to answer the question "How and why do innovations develop over time from concept stage to implementation?" (Van de Ven, et al., 1999, p. ix). The MIRP which is arguably the most extensive empirical field research on innovation till date used a five concept framework to study how new

- 1) ideas were developed to achieve
- 2) outcomes by
- 3) people who engaged in
- 4) transactions with each other in changing organizational
- 5) contexts (Van de Ven, et al., 1999, p. 6)

One of the major findings from this study was that innovation was a non-linear dynamic model where outcomes, rather than being final, stable states, were instead partially stable and likely to give rise to spin off ideas and projects. The 'travellers' in the innovation journey did not resemble the popular notion of an entrepreneur leading a fixed set of people over time, but rather, were fluidly forming and loosely bounded group with multiple members taking a variety of roles over time.

The outcomes from this research are primarily the establishment of the fact that innovation unlike its linear model representation is actually a highly complex non-linear dynamic process. However, the practitioner insights from the research exercise are limited and the findings have little to offer general managers who demand a better understanding of processes in an intra-organisational context. One of the primary reasons for this is because their analysis is at a project level, working outwards from there to the industry level, sidelining individuals and interpersonal processes (Edmondson, 2000). For instance, it is important for a general manager to know how and when different component in the innovation system emerge and are organised over time. The roles and actors who create and perform these components and what consequences various arrangements of this structure have on the time and cost that it may take to develop and commercialise innovations. The research serves as a useful platform to launch a deeper, and more nuanced exploration of the various findings.

The role of organizational structure was not explicitly tackled in this otherwise comprehensive research on innovation. In discussing management systems, previous social scientists have usually followed one of two paths. They have either accepted the organization chart and manual conception as the 'formal organization' – an imposed system of control, information, and authority to which seniors try to get their sub-ordinates to conform – or have barked back to Weber's ideal type of bureaucratic structure and proposed this as a rationalistic interpretation of the working organization of a concern (Burns & Stalker, 1961, pp. 106-7). In the MIRP projects, the case data gathered by the researchers provide enough evidence to conclude that the researchers accepted the organization chart structure as their starting point. However, their findings from the process data have highlighted the impotence of imposing either a 'system of control' or the futility of Weber's ideal type structure while innovating. Research till date has not been able to draw any clear conclusions on the comparative merits of alternative organisational arrangements for innovation

Let us re-examine, the insights from the MIRP project pioneered by Van de Ven (1999) with our new theoretical lens. The study postulates a non-linear dynamic model of learning during innovating and calls for an expanded definition of learning that examines not only how action outcome relationships develop but also how prerequisite knowledge of alternatives actions, outcomes and contexts emerge. They (1999, p. 81) write:

“This expanded definition distinguishes learning by discovery from learning by testing. In particular, our research findings suggest that learning by discovery in chaotic conditions is an expanding and diverging process of discovering possible action alternatives, outcome preference and contextual stings. Learning by testing during more stable periodic conditions is a narrowing and converging process of testing, which actions are related to which outcomes. Moreover, because learning by discovery is a precondition for learning by testing, we must examine how transitions occur between chaotic and orderly learning patterns.”

In many ways, Van de Ven and his colleagues are much more rigorous thinkers about the ‘processes. They have identified and explicated two processes ‘learning by testing’ and ‘learning by discovery’ but by restricting their analytical foundations in a ‘substantialist’ ontology (Van de Ven & Poole, 2005), the researcher’s uncritically differentiate and privilege ‘stability’ over ‘change’ and ‘discovery’ over ‘testing’ in the innovation journey. From a ‘hard’ process perspective, the deficiency of such a treatment is well expressed by Tsoukas and Chia when they write:

“Such knowledge is generated by approaching “change” from the outside and, typically, it takes the form of a stage model in which the entity that undergoes change is shown to have distinct states at different points in time. Such synoptic accounts have been useful insofar as they have provided us with snapshots of the key dimensions of organizations at different points in time along with their trajectories” (Tsoukas & Chia, 2002, p. 570).

I’m inclined to conclude that Van de Ven was implicitly aware of such a risk. This can be inferred when he writes:

“If the innovation journey is to be explained as a learning process, the origination of true novelty should begin with a profound ignorance not only with respect to what actions people take but also with respect to what outcomes they desire and the institutional contexts in which they operate. The idea that preferences are not in existence a priori should motivate further study about how preferences are created in situations of high ambiguity” (Van de Ven, et al., 1999, p. 93).

Above all, adopting such a critical stance ensures that process concepts are developed by generalizations from observed behaviour and not from the inferences of their consequences.

Conclusion

When Erving Goffman, was criticised for being too specific and too ready to wrap a concept around every situation he analysed, his bluntly yet eloquently response was ‘it is better perhaps (to have) different coats to clothe the children well than a single, splendid tent, in which they all shiver’ (Goffman, 1961, p. xiv). Organization theorists researching innovation have often been guilty of building the splendid tents in which theory suffers. The need of the hour is more coats and fewer tents.

Keeping with the 'process' sub-theme of this conference, in this paper, I seek to illuminate the tradition of thought from which existing theories of organizational structures guiding innovation originally emerged. I then contrast it with an alternative, enriching mode of theorizing which draws inspiration from a processual ontological and epistemological world view. A conceptual integration of process philosophy with theory on organizational structures and theory on innovating was carried out. I then, apply this juxtaposition to 'deconstruct' the influential theories on organizational structures guiding innovation. I conclude by suggesting that this 'meta-analysis' of the 'organization of thought' can revitalize theories and further their functional utility while innovating within organizations, by reconstructing it along improved lines.

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