Process philosophy's potential contributions to innovation process research within organization studies

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Abstract

Purpose – The purpose of this paper is to discuss process philosophy's potential contributions to understanding and investigation of innovation processes associated with organizational contexts.

Design/methodology/approach – The paper is a theoretical piece that examines the concept of process philosophy by relating it to the relevant literature and use of examples.

Findings – In particular, the authors develop some ideas and encourage future discussion around two aspects: process philosophy-oriented conceptualizations of innovation processes and process philosophy-oriented methods of investigation about innovation processes. The authors conclude that more process philosophy-oriented research of innovation processes must be conceptually multidimensional and methodologically performative.

Originality/value – There is a recent claim about a "process turn" within organization studies, which is partly represented by attempts to develop and apply a deeper meaning of process. The presentation of the concept is novel, and does add to the literature. These aspects provide clarification regarding implications of thinking and enquiring procedurally into innovation processes.

Keyword Research

Paper type Conceptual paper

Introduction

There is a recent claim about a "process turn" within organization studies (OS), which is partly represented by attempts to develop and apply a deeper meaning of process. (Van de Ven, 2007; Langley *et al.*, 2013; Hernes, 2014). According to Hernes (2008, p. 10), "ideas are brought forward from early philosophical works and later sociological works, the aim being to explore the ontological and epistemological implications of taking different process views." As a result of these debates, the organization is characterized by its processual

nature, which is a view contrary to the traditional notion of the organization as a context where activities give rise to processes. Therefore, this new perspective affects the way in which an organization as a phenomenon of study shall be conceptualized, interpreted and analyzed and how the actors produce new rules, routines or practices at the same time while performing their activities (Hussenot and Missonier, 2016). Further, viewing an organization as a process implicates a review of concepts, theories and methods traditionally used on OS.

Helin *et al.* (2014, p. 3) define process philosophy as an umbrella under which there are process philosophers interested:

> In understanding and showing how the world is a world of organizing, how things swell, how life – including human lives - never reaches the settlement we presume or hope it might.

According to a strong view, things are processes. In other words, the world is made of processes instead of things or stable-fixed substances. What we perceive as things are collections or constellations of dynamic and interactive processes. On the other side, according to a weak view, things are subordinated to processes in the sense that things depend on processes to be what they are. As pointed out by Olsen (2011), modern process philosophers tend to adhere to the weak view in the sense that a substance is not denied even though there is prioritizing of the process over the substance.

As a way to investigate organizational life, process philosophy suggests going-along-with-things "rather than an attempting to capture, to fix, or to measure things." (Helin *et al.*, 2014, p. 10). Method, in this sense, means to follow a (unique, own) way. It also means making use of language as a way to affect the world we experience. Moreover, more importantly, doing research under a process view signifies taking action in the sense of being actively related to the becoming of life. As such, it demands the development of a very special capacity for understanding and describing the richness of (the empirical) life-in-process through actions and interactions carefully suited to different contexts of research.

Our aim with this theoretical essay is to discuss process philosophy's potential contributions to an understanding and investigation of innovation processes associated with organizational contexts. Particularly, we develop some ideas and encourage future discussion around two main aspects:

(1) process philosophy-oriented conceptualizations of innovation processes; and

(2) process philosophy-oriented methods of investigation into innovation processes.

As such, these complementary aspects provide clarification regarding implications of thinking and enquiring procedurally into innovation processes.

The work was organized as follows: besides the introduction, the next section described ontological and epistemological principles derived from process philosophy. Following that, we develop two propositions about what we consider to be more process philosophy-oriented research of innovation processes. We also illustrate how these two specific ideas have been put in practice – according to our analysis – in theoretical–empirical studies of innovation processes. Finally, we conclude by stressing the potentiality and limitations of process philosophy-oriented research within OS and innovation studies.

"Process is what process does": ontological and epistemological dimensions applicable to innovation process studies

The title of this section was borrowed from the work of Helin *et al.* (2014). By analyzing the thoughts of many important process philosophers, they have recognized five aspects in common: temporality, wholeness, openness, force and potentiality.

In summary, temporality allows us to understand the constant process of becoming that reveals a forever-emergent present. This notion of temporality as perishability of the world also gives us a new lens to understand the emergent nature of innovation-oriented events and practices within organizational settings. We may use the notion of temporality to define and understand innovation processes from the distinction between moments of becoming and being. While the becoming reveals transformation and creation, the being allows the perception of the duration of things. For example, by observing innovation processes, we may identify and differentiate actions of creation, which characterize the appearance of new ideas, process and so on, from actions of maintenance, which allow the conservation of practices or elements related to the surge of innovations. The notion of temporality may also permit new ways of perceiving the process of becoming and may amplify of the capacity to understand the relations and interactions between past, present and future in the innovation processes.

Alternatively, the idea of wholeness offers insights into the way in which events and practices develop into widespread phenomena and vice versa. It is also important in the conceptualization of innovation processes because it focuses on the interconnected nature of reality and draws attention to the mutual influence between potentially influential elements and the creation of things through processes. Also, assuming an analytical distinction between the "parts" and the "whole" allows a better understanding of dynamics between interactional elements of processes and the results of these mutual and complex influences.

Openness, as opposed to a closed and finished view of the world, provides an essential feature for comprehension of the continuous process of self-accomplishment and social accomplishment. It also reveals the inherent messiness, ambiguity and inconclusiveness of the world and any attempt to create finalized accounts of the world. We may apply the idea of openness to characterize different innovation processes from levels of permeability (or sensibility to external information) on and between individuals, groups, organizations and material elements involved in the creative process of economic-focused innovation to transform a novel idea into an implemented reality. At the same time, the notion of openness allows the categorization of innovation processes based on the capacity of many human and non-human agents to create new patterns or orders from new and often non-aggregated data or information, translating them into innovation.

Force, in turn, exposes the creative energy of process and enables us to understand the innovation process within organizational context beyond traditional categories, such as position and structure. Accordingly, from a process-oriented view, dominant and dominated forces are the shapers of limits, possibilities and activities. The notion of force may also be applied as a way to define and differentiate types of innovation processes on the basis of dynamic and mutual influential forces (active or reactive; negatives or positives), which, at the same time, constitute and boost processes in many directions. For example, we may have an improved understanding of innovation process dynamics by observing conflicts between agents involved in networked interactions, which lead to the creation of alternative paths of action. By observing movements, actions and reactions, we may also visualize tendencies regarding intents and outcomes within innovation processes.

Finally, potentiality qualifies the process as the production of the new. It is a recognition that the being is an abstraction from its becoming in the sense that all life is characterized by a virtual power of becoming. We may define innovation processes by the application of the potentiality notion. This is related to the power of affecting and being affected as a result of the interaction between temporality and force. It is the ongoing inner possibility of becoming in a dynamic world constituted of connections. Creation, according to this point of view, is the realization (or actualization) of the virtual by making itself perceptible. Real and virtual

are not distinct substances but different conditions of being. Here is the ontogenesis of innovation because the notion of potentiality, as noted by Helin *et al.* (2014), shows the potential to imagine, to strive, to open up and to move to accompany the evolution of being. In defining and studying innovation processes, potentiality implicates the sensibility of the researcher to the non-visible. It also demands the ability to see the intrinsic relation between virtual and real as complementary faces of reality.

Regarding the operationalization of constructs in the context of organizational research, according to a process philosophy-oriented perspective, Helin *et al.* (2014) synthesize the main aspects related to the "way of doing Process Research" under three labels or subsections: belonging to and becoming with the world, the particular and performativity.

Belonging to and becoming with the world demands the development of a very special capacity to understand and to describe the richness of (the empirical) life-in-process through actions and interactions carefully suited to different contexts of research. Langley *et al.* (2013) help us to understand some practical implications of this process-oriented positioning in organizational research by highlighting the necessary use of varied sources of longitudinal data and mixed methods as a way to observe how processes unfold over time. They also mention the notion of "interactional expertise" (as proposed by Collins, 2004, p. 6) as a "kind of knowledge required for one to communicate about a domain without necessarily being able to practice in that domain."

The particular is a notion derived from the idea that "each thing is a multiplicity of 'becomings' relative to the connections it makes (and is potentially capable of)" (Helin *et al.*, 2014, p. 13). By developing an increased ability to, at the same time, perceive this multiplicity and focus on particular aspects relevant to the study, the researcher may be able to see more, listen more and understand better. The "particular," in this sense, is that aspect capable of significantly altering the perception of the whole: "One aspect in your field study story, when focused on, alters 'the whole' that the story is about" (Helin *et al.*, 2014, p. 13). The particular generates connections which reveal "beings" and "becomings" in a mutual relation with the context.

Finally, performativity means doing research of a nonrepresentational nature. In this sense, the world is not something "out there" to be described, measured or modeled. Research as a performative activity implies a kind of temporal-rooted productive experimentation through discourse and play. It is the abandonment of theoretical and methodological regulating structures by acknowledging the transformative and creative power of researching similar to many other types of acting. It implicates a more imaginative and realistic type of theorizing. The particular, as mentioned before, becomes what it becomes in relation to connections. Therefore, doing performative research involves a creative and conscious use of experience and thought in dealing, shaping and changing practices. It means "to write the world while participating in it" (Helin *et al.*, 2014, p. 14).

Discussion

In this section, we illustrate how ideas discussed before have been put in practice – according to our analysis – in theoretical–empirical studies of innovation processes. We also develop two propositions about what we consider to be a more process philosophy-oriented research of innovation process.

Based on our purpose, we have chosen two studies. The first was the work of Hoholm and Olsen (2012) about an industrial food product innovation project called "Salma." The authors structured their analysis – aimed at investigating the evolution of interactive innovation processes over time – into a kind of bipolar process model. One of the processes involved in the networked innovation processes in the study was characterized by relatively

stabilized interacted business networks, which were aimed to reproduce a self-reinforcing cycle. The other networked processes were characterized by their emergence and by a change-oriented network of relations and actions. Between these two types of processes, the concept of friction or controversy was used as a way of explaining the outcomes of the interaction between movement-oriented relationships and stability-oriented structures involved in the innovation project.

The second investigation used as a basis for an illustration of the proposed discussion was the work of Jay (2013) about change and innovation processes in hybrid organizations. The investigation is an in-depth field study of the public–private Cambridge Energy Alliance and investigates the unintended consequences of hybrid organizations' efforts to generate innovative solutions to complex problems:

P1. Process philosophy-oriented studies of innovation processes imply conceptual multidimensionality by embracing notions such as temporality, wholeness, openness, force and potentiality.

The study of Hoholm and Olsen (2012) illustrates the notion of temporality as an essential element of innovation processes. For example, the necessary interactions within both processes-stability and movement-involved in innovation creation are:

Closely related to past experience, present interaction, and future expectations. Altogether, this resembles a research perspective investigating 'the social creation of reality through interaction' over time (Medlin, 2002, p. 4) (in Hoholm and Olsen, 2012, p. 3).

Interactions, we may say, are "beings" focused on the "becoming." In some sense, they can be considered as evidence of future states intended by actors involved in the interactions. They also allow the apprehension of duration in the context of the innovation processes, as they also expose contents (such as different types of resources) and forms (such as actors involved, frequency and ways of interaction) taken by actions.

Hoholm and Olsen (2012) also illustrate the notion of wholeness by showing how mutual influence between the two types of processes affects the creation of innovation and also demonstrate the interconnected nature of innovation processes by showing how forces affect resources both directly and indirectly: "[. . .] effects are never merely local; they distribute through friction across interfaces to other resources – transforming them too" (Hoholm and Olsen, 2012, p. 3).

The notion of openness may also be inferred from the study. First, by describing a creative process as a result of friction between two opposite processes, it calls our attention to a highly probable difference in levels of permeability between different contexts of innovation. Presumably, in empirical situations where stability-oriented networks are predominant as a force, the level of sensibility to external information may be expected to be small. On the other side, when movement-oriented networks are predominant as a force, the permeability is expected to be high. Second, by placing innovation processes "between the social and the material, and in the relation/association of events over time," it draws attention to the process of order emergence through interactional and repetitive interactional practices between heterogeneous human and non-human actors: "This ordering process is about shaping recursive patterns, and when interconnecting multiple such orderings, a complexity emerges [. . .]" (Hoholm and Olsen, 2012, p. 4).

The notion of force emerges in the sense that the study characterizes innovation processes involved in the empirical case by their role as productively interactive and mutually influential forces that constitute and boost the phenomena as a whole. In other

words, the friction or controversy between the aims and the means of both processes makes the innovation outcome possible.

Potentiality is revealed in the study by assuming a principle of actor network theory (ANT), which states that "entities take their form and acquire their attributes as a result of their relations with other entities" (Law, 1999, as cited in Hoholm and Olsen, 2012, p. 4). In this sense, sociality is constituted as a "circulating entity," which is also characterized by multiple continuously negotiated realities. According to Latour (1988, 1996, as cited by Hoholm and Olsen, 2012, p. 8), networks "should be understood as processes of translation, association, deformation and transformation."

The interaction between temporality and force, as it is presupposed in the scope of the notion of potentiality also reveals how innovation processes may be simultaneously characterized by intended and unintended transformations. It also demonstrates potentiality as a dimension of innovation processes with ongoing unpredictable possibilities in a dynamic context constituted by connections. They are also a result of constant friction or controversies between inner processes marked by recursive patterns of relations and actions, which permit the actualization of the virtual into the real:

> *P2.* Process philosophy-oriented studies of innovation processes demands that the researcher has the capacity to study contextualized "life-in-process," to focus on particular aspects relevant to the study and to adopt a performative and investigative attitude.

The study of Jay (2013) illustrates the idea of belonging to and becoming with the world, as proposed within process philosophy in applying an inductive, theory-building, multi- and mixed-method qualitative strategy. The investigation was conducted based on a two-year ethnographic field study combined with elements of action research that were focused on understanding and describing how actors and organizations change over time. Data gathering included participant observation, semi-structured interviews and archival data analyses.

The study also exemplifies the capacity to focus on particular aspects relevant to the study in the sense of an ability to also perceive the multiplicity of elements involved and focus on particular aspects relevant to the study. As described by the researcher:

> I noticed [. . .] that certain meetings were particularly valuable to observe because they consolidate topics from multiple different conversations; they focused on those actions, outcomes, and issues [that] people were most eager to interpret (Jay, 2013, p. 143).

The "particular," as mentioned before, is also that aspect capable of significantly altering the perception of the whole. For example, when the researcher identified some contradictions between organization members and clients' points of view about a subject matter, it was possible to identify the implications of these contradictions to the organization's business model and identity. Alternatively, as another example of "particular," we may stress the observed reframing in the prevalent institutional logic as a key mechanism in generating organizational structural changes:

> They took new actions that produced new outcomes, continuing the iterative process. As people became more reflexive and aware of the paradox, these shifts in organizational identity gradually supported more innovative action. (Jay, 2013, p. 146).

Finally, details from participant observation reveal the performative investigative attitude taken by the researcher. As an engaged organizational historian, he periodically shared his findings with organization members and, by doing this, generated a collaborating and

contributing process of mutual interpretations. The interactive methodology also embraced reflexiveness, transparency, triangulation and self-awareness about the researcher's own impact on the organizational processes under study. The researcher demonstrated the performative investigative attitude by documenting the moments in which he felt his feedback may have influenced the thinking inside an organization: "Latour (2005) called this the 'fourth notebook': the space for documentation of the researcher as actor influencing the system he or she is observing" (Jay, 2013, p. 143).

Conclusions
The inspirational quality of the early twentieth-century process philosophy is not an entire novelty inside organizational and innovation studies. The actor network theory, for example, is rooted in many process metaphysics fundaments. However, recent claims about the process philosophy's potential contributions to OS raise old and new questions about its value in understanding organizational-related issues, such as innovation processes.

By considering processes of innovation as characterized by complex and dynamic interactions, more radical process-based conceptualizations of the innovation process phenomena may inspire more insightful ideas about the interactional phenomena and on the elements involved in creative relations.

This paper's objective represents only a small, modest step in the direction of a better understanding of process philosophy's potential contributions to innovation process research within OS. At the same time, we hope to contribute to showing potential relations between analytical constructs inspired by the process philosophy perspective and the empirical phenomenon of the innovation process. Alternatively, rather, we may talk about innovation processes (in the plural) in that there are multiple possible empirical manifestations of this type of event.

In applying the dimensions proposed by Helin *et al.* (2014), we also follow previous considerations offered by Olsen (2011, 2013) about limitations and possibilities of a more strongly process view within OS and innovation studies. We particularly recognize – as the author explains – that process philosophy, as a perspective, is not a competing or substitutional paradigm when compared to other scientific paradigms but an alternative and complementary conceptual framework. Moreover, in many senses, process philosophy-oriented research is an alternative to typical social science. The search for a covering-law representation of fixed things is replaced by a way of following things in life. As such, this way of researching may enrich studies of innovation processes. It may also impregnate research with localized and contextualized views of the world represented by researchers actively connected to life-in-process empirical settings. Process research informed by process philosophy involves experiencing the world – including its practices in everyday life – in a performative way. According to this view, process research shapes the world and is more realistic in the sense that things only become within particular contexts and relationships. For this reason, process philosophy may contribute to research on innovation processes because it demands a view of experience and thought "as temporal and partly irreversible processes rooted in transformative action involving sociality and materiality (Charles Sanders Peirce)" (Helin *et al.*, 2014, p. 14).

We finish the discussion proposed in this paper by borrowing the expression "ontological training" used by Koskela and Kagioglou (2006), which represents a demand that we break out of our dominant Western metaphysics way of thinking within management and OS. We believe that a renewed interest in process philosophy is a fruitful way of doing it.

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