RESEARCHING BOUNDARIES IN BUSINESS NETWORKS

Simone Guercini
Università degli Studi di Firenze
Florence,
ITALY

Christopher John Medlin
Adelaide Business School
University of Adelaide, 5005
AUSTRALIA

simone.guercini@unifi.it

chris.medlin@adelaide.edu.au

INTRODUCTION

Boundaries are an important subject in the field of business, be they of an enterprise, organization, industry or any other contexts. Boundaries are socially produced and linked to space and time symbols, as well as physical features. Certainly time and temporalities are socially constructed (Bluedorn, 2002) and so are the categories of space, including physical features (Lefebvre, 2004). But boundaries are sometimes imperceptible, at least until one is met, and then at first one only senses a barrier, an awareness of a type of wall through which there is no passage. How can we research such objects, which as often as not are also conceptually bound in an interactive business world?

Business networks provide a view of the interactive world as flow, without boundaries. But the flows are directed and follow purpose, and so boundaries shape business networks. The networks of futures are found all ready in the networks of pasts and presents according to boundaries that are imperceptible until within business interactions. Boundaries are found throughout business networks (Munksgaard, Olsen, & Prenkert, 2017), however, with the focus on flow their conceptualization within the IMP approach has lagged. In line with an IMP approach we define a boundary as an interaction zone of spaces and times where differences are created, maintained and changed. This definition contrasts with borders, which are conceptual or representational artefacts. The distinction is important because boundaries are important in defining different meanings of firms (Araujo, Dubois, & Gadde, 2003), as well as business relationships and parts of networks (Munksgaard et al., 2017). Given that parts of the business network can be developed according to different intentions, logics and business purpose (Håkansson & Johanson, 1988; Möller & Halinen, 2017; Möller, Rajala, & Svahn, 2005), we presume that different boundary zone forms are likely. Thus, our broad research question is: how are boundary zones socially created for parts of a business network?

However, we immediately arrive at a conundrum. First, many managers are not aware of business network thinking (Czakon & Kawa, 2018). One reason for network myopia is, we presume, the lack of education concerning the role of connected business relationships, or the predominance of economics as the base for managerial education. Hence, with a strong realist ontology found in managerial education the thought that boundaries are created and held in place according to interaction between firms is not considered. The second part of the conundrum is now apparent, how do we research boundaries when our informants cannot comprehend our questions in ways that lead to open and useful discussions? Thus, the specific purpose of this paper is an elaboration of a research approach for exploring how boundary zones are socially created for parts of a business network. Our purpose is to provide solutions to our second conundrum

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Our direction is given by the idea that boundaries are socially created. Thus we choose and discuss a constructivist approach. The research approach we seek needs to bridge the experience of managers and their intuitively generated understandings with our research understanding of business networks and boundaries. Our solution is the use of metaphors. A metaphor is a way of thinking to gain scientific insights (Tsoukas, 1993). Researchers have long recognized the role of metaphors as a means in developing understanding, especially in undertaking exploratory research (Cornelissen, 2006; Prawat, 1999; Weick, 1989). Metaphors are particularly apt for the study of socially created and applied boundaries because they allow translation of concepts between contexts (Arndt, 1985; Tsoukas, 1991). However, accepting metaphors as a solution for the research problem we face should, apart from the practicalities, be justified on the basis of ontological foundations (Lee, 2012). Further, choosing foundations constrains understanding, but also provide hints to improve a metaphor approach.

The remainder of the paper is structured in the following manner. In the next section we introduce constructivist epistemology and in particular we turn attention to radical constructivist approaches. In the following section we address pointers for researchers adopting a radical constructivist perspective when interviewing informants. In the third section we discuss and present an exemplification of using metaphors to research boundaries in business networks. We complete this conceptual paper with research implications.

CONSTRUCTIONIST TO RADICAL CONSTRUCTIVIST

The divide between a constructivist researcher and their informant is either possible within a social relationship or somewhat achievable and bridgeable by sharing contexts. The first sense is found in a constructionist ontological position. Hence, according to Gergen (1985, 267) the world is understandable as "social artifacts, products of historically situated interchanges among people. From the constructionist position the process of understanding is not automatically driven by the forces of nature, but is the result of an active, cooperative enterprise of persons in relationship." The second sense is found in radical constructivist thinking, in which humans never completely share their understandings because knowledge is only ever individual. The ontological distinctions are concerning the social.

By comparison the moderate constructivist research approach in IMP literature (Järvensivu & Törnroos, 2010) is more attuned with a constructionist perspective. Järvensivu and Törnroos (2010) position moderate constructivism as critical/weak constructionism that is not bound to the flaws of naïve relativism. Rather moderate constructivism views the world as created within communities. However, the dimensionality from naïve realism to naïve relativism does not hold the position of a radical constructivist researcher. Instead, for a radical constructivist the ontology shifts to allow individuals to hold different world views according to their experience. Again the ontological distinctions are concerning the social. But the radical constructivist perspective also steps aside from concerns with epistemology (Noddings, 1990). The stronger individual positioning of radical constructivism means that the standard meanings of knowledge, truth and objectivity cannot apply (Von Glasersfeld, 1991). The meanings can only have relevance when there is a standard, for example one given authority by a community. The distinction, as an example, is that between one's own knowledge and tacit world understanding versus formal knowledge found in an academic community (see Tsoukas, 1994). For a radical constructivist researcher there is an ontological understanding of how people exist in a socially created world where language and

representation are the forms of information transmission, but knowledge is always first personal and transitive over a life-time. There is a recognition, by a radical constructivist, that others must hold different understandings of knowledge. Conversely, a social constructivist accepts what might be knowledge within a community, which also means knowledge is transitive.

Given these distinctions and the difficulty of researching often imperceptible boundaries in business networks, and with informants who are not necessarily applying the same educational or community context, we see that a radical constructivist researcher approach offers some ideas about method.

RADICAL CONSTRUCTIVIST THOUGHTS ON RESEARCHING

The principles of a radical constructivist ontology according to Von Glasersfeld (1991, 233) are:
"1.a Knowledge is not passively received either through the senses or by way of communication;
 1.b Knowledge is actively built by the cognizing subject.
 2.a The function of cognition is adaptive, in the biological sense of the term, tending towards fit or viability;
 2.b Cognition serves the subject's organization of the experiential world, not the discovery of an objective ontological reality."

The ramifications for Von Glasersfeld (1991) are: (i) 'reality' is social and experiential, and (ii) our reality is a physical and social surroundings to which we adapt. Since our reality is social, but our understandings and knowledge are held individually, Von Glasersfeld (1984) adds that how we share contexts is important. Only by sharing contexts is there potential for a cognizing subject to actively build their own knowledge. Further the sharing of contexts must be purposive, that is provide a fit in the experiential world of each individual. Thus, informant-researcher relationships are a key to new understandings (Guercini, 2004).

For a constructivist there is no out-there reality, e.g. naïve realism; rather our reality is socially constructed (Gergen, 1985). What we know of physical objects is our socially created understanding, according to historical experience (Gergen, 1985). A radical constructivist researcher, however, more strongly notes the process of reconstruction by subjects, and so reality is more of an on-going 'invention' made by individuals. Of course no individual acts or lives alone, and so for a radical constructivist the representation of the real is, in the most immediate and concrete sense, a construction of those who can define that real on the basis of an analytical moment (von Glasersfeld, 2001). The suggestion is that the knowledge so gained is as much found by the purpose of the individual at that moment, than according to the social meaning of the new information or event. Consequently, a complete sharing is not possible in a radical constructivist approach. That cognition is adaptive for the purpose of fit implies a researcher must develop a deep understanding not only of the purpose and drive of the informant, but the informant must also gain an understanding of the researcher's purpose and drive. These contextual elements of a research meeting are thus inseparable to the new understandings that are gained by each participant. Thus, how context is shifted and shaped will be a key to what is held in-between informant and researcher.

Within radical constructivism, a distinction is made between the concept of equivalence and that of individual identity (Von Glasersfeld, 1984). The distinction clarifies the association between the image provided by our senses and that set out by our perception. Equivalence corresponds to a concept of adapt, while identity refers to omomorphism. The distinction is given by comparing the words 'match' and 'fit' against each other in certain contexts (here we paraphrase Von Glasersfeld, 1984, 7). A match exists when a meta-physical realist looks for knowledge that directly associates with something in reality. For example, when looking for paint to match the color that is already on the wall that you have to repair. In the case of a realist epistemologist the color is not the concern but there is never-the-less a need to find some kind of 'homomorphism'. Thus, a 'match' refers to say, an equivalence of idea and world, a sequence, or characteristic structure that in being considered the same provides a specific knowledge of the world. By contrast a 'fit' speaks to a different idea and world association. A key fits if it opens the lock. 'Fit' describes a capacity of the key, not of the lock. The metaphor is crude, but from the radical constructivist point of view, all of us face our environment as the individual holding a key faces a lock. Many keys can open the lock, but how they do so is as much constrained by the key as the lock. According to (Von Glasersfeld, 1984, 8), just as "the environment places constraints on the living organism (biological structures) and eliminates all variants that in some way transgress the limits within which they are possible or "viable," so the experiential world, be it that of everyday life or of the laboratory, constitutes the testing ground for our ideas (cognitive structures)." Thus, Von Glasersfeld (1984) argues that radical constructivism complies with the theory of evolution; but we would add all of these objectified ideas are constructions that are now socially believed. Here is evident that the radical and social constructivist perspectives are suited well to researching the immediately new, but the first concerns more the earliest moments of inspiration while the second can apprehend the socialization processes.

The implication of the fit concept is that each individual can hold different and adequate understandings of the world. Further, different understandings and points of view will necessarily develop. But being 'tolerant' of these differences in understanding is not an acceptance of relativism. Rather, the understanding have been viable and fit for the purpose of the continually adapting individual. Thus, we add, the individual knowledge and understandings have been gained through past purpose and if relevant are only so because of a present or future purpose of the individual. Apart from the principle of 'tolerance' (Varela, 1984) the radical constructivist researcher should find relevant a principle of 'responsibility', a principle of 'freedom' and a principle of 'uniqueness' (Von Foerster, 1984). The application of the principle of responsibility sees informant and researcher gain new knowledge and understandings each according to her/his own aspirations, and so has future personal ramifications and implications. The implication of the principle of freedom is that informant and researcher should be aware of the possibility, always immanent, of constructing in a different/new way so there is a possibility of choice (Watzlawick 1984). The principle of uniqueness, which is found in all constructivist approaches, again points to the individual as the constructor. Thus, each representation of a social reality is also a self-reference to the constructor (Varela, 1984). The implications for a radical constructivist research approach are profound, careful listening: (i) within a context in which the purpose of informant and researcher are clear, and when new understandings emerge attempts to share meaning require adjusting contexts, (ii) to understand the past of a constructor, as he/she is a part of the social reality espoused, and (iii) so as take responsibility to open future choices. Unlike other qualitative and interpretative approaches a radical constructivist research meeting is as much or, even, more about educating each other.

METAPHORS IN THE PERSPECTIVES OF RADICAL CONSTRUCTIVISM

The use of metaphor is in tune with the perspective of radical constructivism, insofar as the ultimate meaning of the things that each observer assigns is inaccessible to other observers. What can be shared with the other actors is only the context, in which each observer assigns meanings that can be different even to the same stimuli. However, this does not mean that it is not possible to have operative effects in the interaction. Creating and sharing a context allows understandings that converge on similar or at least compatible models. In other words it is not the meaning, but the signifier or the language, which holds a key to providing a context for different meanings to flourish. Approximations of meanings are possible, but the final or complete meaning of the constructor is substantially, or certainly partly, inaccessible. Thus, the metaphor acquires researcher value by explicitly not expressing an identical description of reality, and so the way is left open for new understandings. A metaphor acts as a contextual stimulus to produce convergent meanings in the actors, but also leaves available even complete reversals in meanings.

An exemplification

In a research meeting with a serial innovator the metaphor of boundary was introduced around a business relationship in a typical network diagram (see figure 1). First the typical network picture (Ramos & Ford, 2011), in which two way arrows represented the business relationships, was presented and discussed (Fig. 1.a). Next boounderies were added to the business relationships (Fig. 1.b).

Figure 1. Border of business relationships
1.a   **1.b**
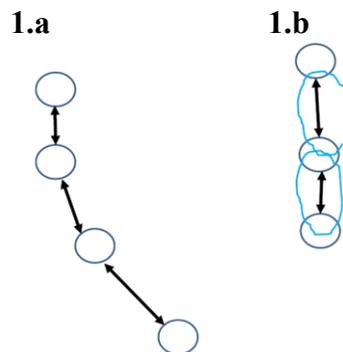
Instantly our informant began to elaborate business relationships and his part in managing, in a way not previously available. He began to provide clear examples where he had made dramatic differences for a partner. *"When I'm in the relationship ... and what I think is a strength of business relationships is - when you are in the relationship you are not negotiating from a single point of view, you're meeting in the middle, you're engaging in understanding the strength and weaknesses of the other persons position. You might still have a different outcome to what the other person is trying to aim for but you are in that middle zone in terms of understanding what each of you are thinking and so I quite like that effect. The company BJ [a customer] ..., I am one of the members of his advisory board. And what that does is it draws each of us either together or separately into this relationship where in the relationship he can also choose to, and we can choose to be in his shoes. We can actually choose to put ourselves in the BJ problem or in the relationship that we have with our company. It's quiet, there's three quite distinct zones, I can go as VA and say Paul this is what we need to do. I can then go over to BJ and say OK here we are in BJ and there is no*

question, this is the right path forward for BJ, but then in VA and BJ together, this is how we can change the world.”

Adding the boundary metaphor to a business relationship brought forward a whole new way to describe what was intuitively known and understood by the informant. The previous intuitive understanding, suddenly had new meanings according to changing points of reference within a problem. The changing reference points gave a way to describe constraints, and importantly to see new opportunities. We researchers had provided an education experience, a new way to see the business relationship by enclosing with boundaries, so making the previously hidden nature and different positions inside explicit. On the other hand, we researchers gained an insight: a business relationship is a zone of interaction. The border is a representation, but the boundary is formed by interactions, as is evident from the managers elaborations.

CONCLUSION

We set out in this paper to elaborate a means for undertaking research of boundaries in business networks, given that many informants do not comprehend any of these concepts, even though they have experiential and intuitive understandings. Our elaboration of the radical constructivist perspective, which accepts the individuality of experiential and intuitive knowledge and understandings, suggests that a research device is needed to allow sharing of contexts. Metaphors would appear to be such a research device.

According to Morgan and Smircich (1980) the creative potential of a metaphor depends on the role of the differences between elements involved in the metaphorical process. For Morgan and Smircich (1980, 610) a metaphor is “a creative form which produces its effect through a crossing of images”. Thus, there is an alignment with the radical constructivist perspective, in which individual knowledge is found by crossing meanings according to contexts. However, from a radical constructivist perspective, we do not agree with the way Morgan and Smircich (1980) constrain the research use of metaphors to particular ontologies. Such a constraint of metaphors is not relevant, because any metaphor is only a device for creating a context. By contrast, for Morgan and Smircich (1980) metaphors provide a shared form of social understanding. Here the distinction between social and radical constructivist perspectives is on display.

But also the precise point of metaphors for researching deep concepts with informants who are not educated nor understanding of business relationships and networks is made clear. Metaphors create a context, that allows both informant and researcher to move forward in their understanding and knowledge. Our exemplification displays this power of metaphors.

Evident from our exemplification are a range of future research opportunities in the network picture literature (Ramos & Ford, 2011). Also the border metaphor points to future research of boundaries around and within business relationships and networks.

The radical constructivism approach offers some reflections on the concept of boundary. For radical constructivist researchers the meanings are confined to the individual, but at the same time the contexts are partly shared. The context is important in giving the opportunity to test the informant's and researcher's understandings and to get adaptation and convergence of

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meanings. The reality for the radical constructivist is created precisely through the social interaction in which these contexts are produced (Von Foerster, 1984). In the research meeting the metaphor is a shared context and so is capable of evoking meanings for each actor on which processing and convergence can take place.

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