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From Practice-based Knowledge to the Practice of Research: Revisiting Constructivist Research Works on Knowledge[1]

Abstract   *Research studies within organizational knowledge are good examples for both analyzing and illustrating the debate regarding a paradigm shift in management. Most articles in the field focus on knowledge complexity and its socially constructed side. Researchers have noted a great deal of similarity between this socially constructed nature and the shaping elements of constructivism. They argue for a paradigm shift, rejecting positivism. To more fully understand this paradigm shift, and to address the number of methodological questions it raises, we carried out a content analysis on a sample of the main articles dealing with organizational knowledge. Our research points out that the principles of constructivism are difficult to adhere to within research design. It underlines the lack of specific methodological devices and lack of adaptation with the epistemological system of reference. This study highlights the methodological perspectives that underpin constructivist research in organizational knowledge. **Key Words:** constructivism; epistemology; knowledge; methodological tools; paradigm shift*

Introduction

There is much disagreement concerning a break with positivism, the dominant paradigm in management. The debate in *Strategic Management Journal* between Mir and Watson (2000, 2001) and Kwan and Tsang (2001) is a good example of this controversy revolving around the need to center research within a constructivist framework in order to analyze organizational complexity. Mir and Watson (2000) highlight the potential offered by the constructivist standpoint as regards research strategies in the field of management. They focus on the context-driven nature of theory creation, on the role of researchers as veritable players in the research process and the non-separation between theory and practice.

This perspective is illustrated here using studies on knowledge. The majority of recent articles on the subject insist on the complexity of knowledge, its unavoidably context-based nature and its socially constructed character. Furthermore, the irreducible relationships between knowledge and praxis, knowledge and language, and knowledge and history are also outlined. A number of researchers have noted a great deal of similarity between such characteristics as the negation of the ontological presupposition, the co-construction of problems with the actors and pragmatic orientation, and the shaping elements of the constructivist paradigm (Spender, 1996; Von Krogh et al., 1994).

In this article, we examine texts belonging chiefly to those concerned with the development of organizational knowledge rather than those focused on knowledge management (Easterby-Smith and Lyles, 2003). The empirical basis of our research consists of articles that address the question 'How is organizational knowledge constructed?' (see the Appendix for methodology details). This article evaluates the fit between the espoused epistemology of constructivist authors and their research methods, arguing the need for internal coherence.

Our contribution is built upon the following key questions: (1) What are the 'ingredients' of the epistemological rupture envisioned by the authors? (2) May we legitimately speak of rupture? (3) If so, how does it operate? (4) What are the specific features of the method and instrumentation adopted, and the resulting knowledge?

The crux of our argument is that claiming to take a constructivist approach does not necessarily translate as a paradigm shift, as researchers might not be using methods appropriate to this new paradigm. Our article is not a substantive critique of constructivism, but rather a critique of the way it has been deployed in studies of organizational knowledge.

This article is comprised of three sections. The first examines the 'ingredients' of the epistemological shift. We discuss the various principles inherent in the constructivist approach. The second section emphasizes the difficulty of putting constructivist principles into practice. We argue that this difficulty stems from the confusion that clearly continues to exist between the social constructs studied and the constructivist framework that is perceived as necessary. The third section focuses more specifically on ways of conducting constructivist research into organizational knowledge, in particular, by questioning the status of certain tools and/or methods.

A Constructivist View of Organizational Knowledge

Many studies in the domain of knowledge management insist on the socially constructed nature of knowledge and stress the need for a break with the dominant positivist paradigm. Tsoukas and Vladimirou (2001: 974), for example, are opposed to 'a narrowly Cartesian understanding of knowledge and cognition'. Gherardi (2000) contests the notion of 'a functionalist organization theory' in order to address the question of knowledge, which is all too often reified and reduced to a mere problem of 'ingestion and capitalization'. Spender (1996) deplores the fact that 'the prevailing notion of knowledge seems naively positivistic and that of

learning simplistically mechanical'. Pentland (1995) seeks to break the mold of 'objectivist epistemology', while Tsoukas (1996) abandons rationalist and strictly representational conceptions of knowledge.

The next section provides a definition of the terms of this paradigmatic break from a positivist reference. Following that, we return to a constructivist conception of organizational knowledge, such as it has been highlighted in studies that claim to be part of this school of thought.

The Structuring Elements Associated with a Constructivist Approach in Social Sciences

In general, researchers attempting to free themselves from a positivist vision in the social sciences have tried to emphasize the potential that a constructivist approach has to offer.[2] Their focus has been on its main dimensions, in particular, on the negation of ontological preconceptions, the co-construction of knowledge with actors and pragmatic orientation.

The Negation of Ontological Preconceptions   Constructivists consider that science cannot pursue the aim of a knowledge of reality and that, in fact, this reality neither exists independently of, nor predates, the actual observer–researcher. Primacy is given to the interaction between subject and object and to the methods of knowledge development. Constructivists refute any nomothetic approach that presupposes the ability of researchers to discover natural phenomena using systematic techniques and protocols in order to eliminate any bias inherent in their analysis (Burell and Morgan, 1979). They banish notions like objectivism, empirical realism, objective truth and essentialism, averring that what we view as objective knowledge and truth is nothing more than the result of a specific perspective (Gergen, 1999; Schwandt, 1994). Scientific knowledge does not constitute an object, that is, a representation that exists independently of the researcher, but rather is an activity and a process (Von Glasersfeld, 1991). Knowledge and truth are created by the mind, not discovered by it. This leads to a pluralistic, relativistic and multidimensional conception of reality, with reality becoming the product of a variety of systems of symbols and languages.

Co-construction of Problems with the Actors   Continuous movement between theory and practice, as well as a more articulative, rather than cumulative, approach to research (Piaget, 1970) implies that knowledge is the outcome of continuous construction. It is impossible to separate the researcher (subject) from the phenomenon under investigation (object). In this respect, organizational 'reality' or the truth that academic disciplines avow is, in fact, socially constructed (Mir and Watson, 2000). Guba and Lincoln (1989) assume that the observer cannot (and should not) be neatly disentangled from the observed in the activity of inquiring into constructions. What results is a dialectic and iterative process built around analysis, criticism, reiteration and re-analysis. Constructivists are especially interested in grounding their work in subjectivity and intersubjectivity, and in actively constructing and co-creating knowledge by working together with the actors involved. Understanding is participative and conversational. Agreement as to what is trust, for example, is subject to negotiations between all the

parties participating in the research (Bernstein, 1983; Lincoln and Guba, 2000). Methods employed to generate, analyze and organize data, and to link evidence to hypotheses are not under the control of an autonomous, disengaged, disembodied subject, knower or ideal epistemic agent (Schwandt, 2000).

Pragmatic Orientation   This approach is characterized by the fact that subjects of research are active in both the formulation of the research agenda and the mutual learning between researcher and actors. Theory and practice are inextricably linked. Practice exists both before and after theory (Mir and Watson, 2000) and there is a phase of pretheoretical *praxis* that leads to the formalization of theory and ultimately guides future *praxis* (Butts and Brown, 1989). Whereas positivists and post-positivists view action as something that can contaminate a research project's findings, constructivists deem it to be a constitutive dimension of any scientific process (Lincoln, 1998). This connection between research and action is one major attribute of the constructivist school of thought. Action created by, and for, participants with the help and cooperation of researchers is a factor that distinguishes conventional positivist studies from the constructivist project.

The Constructivist Conception of Organizational Knowledge

One of the arguments for epistemological rupture is constructivists' insistence on the complex, dynamic and context-based nature of knowledge. Another is the focus on the role of language, communication and narration in the construction of knowledge.

The Nature of Knowledge   One of the most emblematic articles concerning the constructivist viewpoint in the field of organizational knowledge is that of Von Krogh et al. (1994: 58), where the authors seek to posit the idea of knowledge as being socially constructed, emphasizing systems of autopoiesis:

> Knowledge is a component of the autopoietic process; it is history-dependent, context-driven, and rather than being oriented toward problem solving, knowledge enables problems to be defined.

The principle of circularity is mentioned here because the agent finds her/himself within a cognitive system from which s/he is unable to escape, and within which s/he cannot choose at what point it will begin and how it will function.

In addition to this autopoietic character, many studies describe the dynamic nature of knowledge. As Orlikowski (2002) points out, people improvise new practices as they invent, slip into or learn new ways of interpreting and experiencing the world. Most of the arguments are built upon this notion of social construction of knowledge:

> Individuals are now seen as agents, active co-producers of their surrounding reality. How agents construe themselves and their environments becomes the focus of study. (Tsoukas, 1996: 13)

According to many authors (Blackler, 1995; Brown and Duguid, 1991; Gherardi, 2000; Lave and Wenger, 1991; Tsoukas, 1996), the process of knowledge

development, like the process of learning, is a chiefly social and cultural phenomenon. Historical and indeterminate, knowledge is the product of an interdependence among subject, object and context (Gherardi, 2000).

It is from the cultural perspective that the concept of situated knowledge, and interpretative practices situated in specific contexts, has developed most completely (Cook and Yanow, 1993). Spender (1996) argues in favor of a systemic conception that takes into account the dimensions of leadership and systems of influences. According to this view, knowledge becomes a multidirectional concept type associated with the notion of 'working together' (Gergen, 1999).

Although the establishment of a constructivist paradigm may appear to be warranted by the dynamic and socially constructed nature of knowledge, it is precisely this view that we question in the remainder of the article.

The Role of Action and Language in the Creation of Knowledge This conception of knowing is intimately bound to the fact that knowing and doing, and knowledge and action, are perceived as being mutually dependent. Social reality and organizational reality are not a given but rather are continuously constructed within the complexity of organizational activities:

> Organizational knowing as emerging from the ongoing and situated actions of organizational members as they engage the world (. . .). All doing is knowing and all knowing is doing. (Orlikowski, 2002: 249–51)

The studies by Boland and Tankesi (1995) illustrate the role of language, presented as a social fact, in the construction of collective cognition. The key concept for understanding the development of organizational knowledge is thus language activity:

> Knowledge like plants is alive, then it can be talked about more like garden architecture as it becomes culturalized in different discourses. (Gherardi, 2000: 213)

Certain authors go as far as to refer to 'linguistic games' (Wittgenstein, 1953) in order to demonstrate the importance of discourse in the emergence of knowledge:

> What a social practice is depends on how human agents interpret it to be (. . .) Language is constitutive of reality – there is no privileged position from which reality might objectively be viewed. (Tsoukas, 1996: 19)

Internal Contradictions or the Difficulties of Operationalization

This section asks which special methodological tools are used to negotiate the paradigm shift and develop scientific knowledge. Here we inquire about the coherence between constructivist principles and the methods used, and highlight the need for the constructivist researcher to possess specific constructivist tools and/or interpretative paths.

Research Instrumentation: Absence of Specific Tools

The articles we analyzed readily point out the complex modalities of knowledge creation which is deeply rooted in practice. To what extent do authors take this into account in their own 'production' of scientific knowledge? Is there any symmetry (or isomorphism) between how researchers conceptualize the process of creation of knowledge by agents (e.g., subject–object interaction, intersubjectivity) and the process by which they themselves develop scientific knowledge?

Constructivist authors have increasingly expressed the need for such questioning. Gherardi (2000: 219), for example, writes:

> We authors who study how knowledge is produced, utilized, transmitted in the practices of 'others' pay little regard to how we ourselves produce expert knowledge.

Tsoukas (1996) holds strongly to the idea that learning is a social, participatory activity rather than a cognitive activity, emphasizing that the human agent's understanding resides, first and foremost, in the practices in which s/he is involved and that knowledge is not discovered but rather created. Even if we accept this, it is nonetheless difficult to clearly identify the methodological consequences in studies where action-research, or even participatory observation, paradoxically does not appear to play a key role.

Analysis of the empirical materials raises the problem of coherence between epistemological positioning and the specificity of the methodological apparatus. Although it may seem that an objective can be achieved through a wide variety of methods, it nevertheless remains true, as stated by Schwandt (1994), that it is legitimate to advocate methods that are more specific in nature, including participant observation.

The articles we analyzed use a variety of methods ranging from non-participatory observation to the most longitudinal and participatory case studies. An initial example is provided using Pentland (1995), which comprises a longitudinal study during which the status of the researcher was limited to that of an agent participating in the life of the organization. However, the empirical materials and data collection methods are extremely classical:

> I have a considerable experience base with this case, but because my role at the time was exclusively that of participant, I am an observer only in retrospect. I have notes and archival records from the time period in question, including design documents, notes from meetings, examples of audit reports, input forms, and other artifacts of the work process. (Pentland, 1995: 8)

At the very least, this excerpt identifies incompatibility, or even incoherency, regarding the sequentially of a researcher's roles. Indeed, Pentland (1995) analyzes his own experience as running over two phases, one where he acted as a participant and the other as an observer. To be exact, we would have to say that a constructivist researcher assumes both roles simultaneously.

In addition, it is worth noting that the author does not describe the role of the actors in the research process. Consequently, there is nothing in methodological terms distinguishing this type of research project from more realist studies.

A second example is provided by the study conducted by Orlikowski (2002). Using a resolutely inductive approach, this author conducted a long-term, large-scale qualitative study comprised of interviews, secondary data sources and direct observations.

Orlikowski (2002: 255) herself acknowledges this:

> I was unable to participate in or observe project activities directly, thus my understanding of practices comes primarily from interview data and from the traces of work evident in project documentation.

An author may use data stemming mainly from interviews to which s/he has not attributed any specific status other than the kind that is inherent to normally compiled (i.e., not co-constructed) information. By so doing, s/he will not be radically deviating from a positivist stance. To this we can add the use of data triangulation, which is perfectly coherent with a conventional positioning à la Miles and Huberman (1991).

Thus, the methodologies adopted contradict the affirmation, reiterated frequently throughout the articles, that knowledge is constructed in, and through, practice. For a constructivist researcher, this would appear to apply equally to scientific knowledge.

In a similar vein, Tsoukas and Vladimirou (2001) used qualitative techniques and adopted the recommendations formulated by Miles and Huberman, two self-proclaimed positivist researchers, in their own methodological approach. Other authors emphasize that 'a scientific description of organizational knowledge must always take the role of the observer into account' (Von Krogh et al., 1994: 65). However, this is rarely the case in the majority of articles studied empirically, which favor establishing some distance between themselves and the 'object' of research. There is a problem of coherence when a claimed constructivist framework includes a design in which the researcher stands outside the system under observation The explicit reliance of Orlikowski (2002) on the methods recommended by Eisenhardt (1989), a positivist researcher, and a description of data analysis using test–retest method illustrates this problem.

The Concern for Objectification

We have noted two main characteristics in most of the studies: maintenance of the researcher's exteriorized position and the attempt, however implicit, to objectify a study's outcomes.

The Researcher's Exteriorized Position Generally speaking, authors have sought to understand and describe the process by which agents develop knowledge. They attempt to demonstrate that knowledge may only be constructed collectively through a complex and context-dependent series of interactions. Yet these researchers themselves sidestep the analytical process that they willingly impose upon the agents under examination. This involves the 'paradox of attempting to establish an objective science of subjectivity' as pointed out by Allard-Poesi (2005). Researchers appear to construct knowledge in isolation, thereby removing

themselves from the process of knowledge development, which according to these same authors, cannot be anything other than socially embedded.

Many of the research projects that we have studied tend to involve a type of disengagement. The researcher objectifies what s/he should be co-constructing and seems to remain scarcely affected by the knowledge of the co-creation process. As averred by Schwandt (2000: 195): 'reaching an understanding is not a matter of setting aside, escaping, managing, or tracking one's own standpoint, pre-judgements, biases, or prejudices. On the contrary, understanding requires the engagement of one's biases (...) because understanding is lived or existential'. Comprehension and knowledge should normally be produced as part of a dialogue with participants in a study, not reproduced via an analysis of (or distancing from) a situation.

In an explicitly constructivist article written by Un and Cuervo-Cazurra (2004: 28) the following is stated:

> In this paper, we take the view that firms are distributed knowledge systems, which means that they are composed of knowledge embodied in individuals and their social interactions.

To be totally coherent with the paradigm to which they adhere, these researchers should be answering the questions they raised while developing scientific knowledge in a co-constructed manner with actors. Yet what they opt for is an eminently positivist and instrumental perspective that places them in an exteriorized position in terms of what is happening in the field. They seek to test their model via factor analysis for all variables consisting of multiple measures and report their reliability scores indicated by their Cronbach's alpha. They conclude with their study's predictive, causal, normative and valid status. The very fact that they have formulated the problem in these terms clearly shows that the explanation's contextualized or idiosyncratic aspect does not constitute the focal point for their construction of scientific knowledge.

Lastly, we detect an incoherency between the constructivist status they claim and the scientific criteria they use to describe the fruit of their labor. The criteria they apply are exactly the same ones as those advocated by positivist researchers.

Gherardi and Nicolini's 2002 research study constitutes another example. The authors use observations of language and behavior in the Italian construction industry to understand how different communities of practice, such as managers and engineers, make sense of why accidents happen on building sites. Data are gathered in the form of both informal conversations and formal interviews, that is to say, storytelling and narrative. However, despite the constructivist stance that Gherardi defends, researchers are not perceived as participants in a social and organizational process, nor is any commitment stance detected within actors' discursive practices. Although Gherardi and Nicolini (2002) do emphasize that knowledge (hence scientific knowledge in a constructivist paradigm) involves the ability of behaving as a competent member in a discursive community, their approach and assertions remain analytical, without stressing any commitment to actors.

The Search for the Objectification of Results   Although the authors we studied emphasize the complexity and social dimension of knowledge, many of the results

obtained are inconsistent with this notion. When they are not purely rhetorical (Von Krogh et al., 1994), certain conclusions appear surprising in view of the stated epistemological premises:

> The advantage of this framework is that it decomposes the overall phenomenon into smaller and more observable processes. Although these processes are distributed in time and space, they are readily identifiable and can be measured and monitored in various ways. (. . .) By breaking the overall phenomenon down into constituent parts, it should be easier to isolate problems and, hopefully, recommend practical improvements. (Pentland, 1995: 19)

The possibility of observing, measuring and analyzing phenomena creates a clear-cut distinction between the above approach and those elements that could provide justification for a constructivist framework for research.

Even when the constructivist paradigm is overtly favored, contradictions can be seen in terms of method, as well as discourse. For example, Von Krogh et al. (1994: 65) developed a concept of reality defined as a group of observable elements:

> Conversations are interesting to study: they are observable events. (. . .) The researcher has to rely on observable metaphors.

How can this highly analytical vision be reconciled with the systemic viewpoint and the phenomenon of autopoiesis reflected by these three authors? Similarly, Pentland (1995: 8) who claims to belong to the phenomenological school poses a number of questions that are not entirely foreign to certain realists:

> What implications does this case [Encap case in the article] have for the implementation of other kinds of systems in other contexts?

Here, the author is clearly accenting the criterion of external validity, which is precisely the approach rejected by constructivist researchers.

A paradox exists between the conception of knowledge as described in the studies reviewed, and the desire to establish objective, or even functionalist, knowledge of the phenomena under study. For example, Von Krogh et al. (2000) propose managerial recommendations concerning organizational culture at a level intended to create a context propitious to the development of organizational knowledge. The prescriptive and frequently normative nature of the conclusions is insufficient to warrant the epistemological rupture proclaimed by authors in this field and is, instead, a process that involves the reification and objectification of organizational knowledge.

Questions relating to the researcher's exteriority, and to the objectification of knowledge, call for a very clear response to the following question: can a researcher opt for a constructivist approach to the concept s/he is studying (meaning for our current purposes, organizational knowledge) without accounting for its specificity in his/her research design,[3] and therefore, in the status of the scientific knowledge that s/he is trying to produce? If the answer is yes, no accounting is necessary, then this question leads directly to another: why define the concepts under study according to their constructivist connotation if this has no consequences in terms of apprehending the object of research? A negative

answer, by contrast, raises a sizeable challenge for any constructivist researcher, because s/he would then have to work on the study's coherency with its own foundations, including its transition to instrumentation, the interconnection of tools and methods and the status of the findings given.

In the studies analyzed, we were unable to identify any specific objects, methods or instrumentation adopted, or knowledge produced, that differed from other epistemological frameworks. We found no coherence between the claimed position and the transition to instrumentation. In addition, we identified a glaring contradiction between the knowledge-generation modes being affirmed in the constructivist paradigm and researchers' scientific knowledge-generation mode. Table 1 is a synthesis of our analysis.

The gap between espoused principles and principles in use shown in Table 1 should be examined. First, we believe that there is frequent confusion between the study of social constructs and the paradigm of constructivism. Arguments in favor of the paradigm shift and the adoption of a more constructivist perspective hinge chiefly on the social construction of knowledge. However, is the study of social constructs enough to advocate an epistemological break with the dominant paradigm?

Table 1 Is a paradigm shift relevant in the field of constructivist organizational knowledge? Espoused principles and principles in use

	Espoused principles	Principles in use	Is a paradigm shift relevant?
Status of 'reality' (organizational knowledge)	Organizational knowledge is complex, dynamic, socially constructed and context-based Role of language, discourses and stories	Epistemic positioning of the research, justified by the social constructs observed	Studying social constructs does not imply the epistemic shift
Methods of development of scientific knowledge	Co-construction of problems with the actors No possibility to separate the researcher from the phenomenon under investigation	No specific tool	Contradiction in terms of both methods and discourse. Nothing appears as specific in the process by which the researcher produces knowledge
Status of scientific knowledge and results	Importance of subjectivity and complexity	Search for objectivity	Contradiction between the status of organizational knowledge (subjective) and the quest for the objective establishment of a scientific corpus of knowledge Internal contradiction

Too often, the justification for adhesion to the constructivist paradigm consists simply of the interest that this viewpoint has in terms of analysis of social constructs. Mir and Watson (2000) justify recourse to constructivism in terms of the specific characteristics of the objects under analysis. In this particular case, there is some confusion between the objects of constructivism, imputed to the agents, and methodological constructivism on the part of the observer–researcher.

We, therefore, feel that the widespread confusion between study of a social construct and the socially constructed nature of knowledge does not support the demand for an epistemological break.

The social sciences, and the organizational sciences in particular, are by their nature, inherently concerned with social constructions such as representations, discourse, learning, cultures, etc. However, study of social constructions does not automatically imply a paradigm shift. It is, in fact, by no means certain that a researcher claiming a high degree of realism for his or her theory would deny the fact that knowledge is contextualized and emerges from organizational practices. 'Realists thus do not need constructivists to help them bring the issue of context back into the picture' (Kwan and Tsang, 2001: 1167).

Thus, as Strike (1987) clearly shows, there is nothing original per se about the affirmation that people take an active part in the knowledge construction process, because no one, aside from a few strict behaviorists, would deny this obvious fact. Schwandt (1994: 126) adds that, 'even the logical positivists, the target of many who currently claim the label "constructivist" were themselves constructivists in the sense sketched above (. . .). Further, one need not to be an antirealist to be a constructivist'. Constructivism therefore represents something more than the superficial meaning that would otherwise be attributed to it in this framework, and calls for specific processes regarding scientific knowledge construction.

Beyond Incoherency: A Few Methodological Perspectives

To transcend these observations, we must propose new paths capable of guiding constructivist research.

In our opinion, two orientations lend themselves to increasing the internal coherency of constructivist research in management. The first involves a more systematic discourse relating both to the status of the tools and the mechanisms being deployed in the field. The second implies that the researcher should adopt a commitment stance, relying, for example, on ethnography and/or action research as approaches capable of meshing optimally with the constructivist paradigm's structuring elements.

Highlighting Reflexivity: Towards an Explicit Discourse on the Status of Researchers and Tools

Mir and Watson (2000) stated that a researcher operating within a strictly constructivist epistemology may use a variety of methods including, for example, statistical analysis. We disagree. Although we do not support the thesis of specific epistemological tools dedicated in principle to one paradigm or another, we do not feel that the entire range of available tools and methods may be deployed

within all types of study without the need for further justification. Thus, unless a (statistical) tool is put to use within a constructivist framework, in other words as a means of co-constructing meaning together with the agents in the field, we cannot concur with Mir and Watson (2000) regarding the neutral nature of methodological tools in research designs. Our position is close to that outlined by Weick in the preface to the work by Huff (1990) regarding the methodological device of the cognitive map. Within a constructivist research framework, we can understand that cognitive mapping may be used as a way to co-construct meaning working together with frontline actors.

Alvesson (2003) analyzes the roles played by such widespread methodological tools as interviews in management research. He views these as being rooted in three distinctive paradigms (neopositivist, romantic and localist). His thinking on the varying status of interviews in different paradigms bolsters our opinion that tools constitute vectors of ideology and are not independent of the contexts in which researchers try to mobilize them.

In his/her research design, the constructivist researcher would be advised to show concretely how the actor's integration can enhance thinking and the knowledge-creation process. In the absence of any discourse on these topics, it is hard to grasp whether there are any real differences with a qualitative positivist research that relies on actor-delivered information without granting said actors an active role in the scientific knowledge development process.

Schwandt (2000) argues that the foundationalist–representationalist nexus is built upon a stance of disengagement: the subject (knower) stands over and apart from the object of understanding. Schwandt goes on to focus on the moral and political requirements of social research practices and on the fundamental question: 'How should I *be* toward these people I am studying?' At issue is the positioning of one's own ethical–political commitments as a researcher. A constructivist stance is especially useful for (re)positioning actors at the heart of the research and scientific knowledge-creation processes.

All of our assertions underscore the idea that researchers should adopt a reflexivity approach. This involves critical subjectivity, which is an awareness of the multiple identities a researcher represents in the research process (Alvesson, 2003). The research process does not take place in a vacuum and, on the contrary, happens in a landscape of interests and power positions.

Towards a Commitment Stance for the Researcher—Encouraging Action Research and Ethnography

These two approaches position experience and researcher–actor interactions as priority modes for the development of scientific knowledge that will be useful to actors.

Action research postulates a change in social reality, both as a means for accessing scientific knowledge and also as a finality. Even if action research involves a pluralistic approach, we feel that its social nature, which is rooted in, and linked with, actors' concrete problems, offers a good way of obtaining cooperation and adherence to an approach that is by nature co-constructed.

Ethnographic research may be viewed as one of the oldest methods in qualitative research. Reeves Sanday (1979) picked out researcher commitment as one

requisite of this method, because researchers themselves constitute the number one instrument of their own studies. We feel that ideas such as researcher commitment and participation are particularly compatible with the constructivist paradigm which postulates that empathy and interaction with frontline actors constitute structuring and differentiating elements.

Whether action research or ethnography, it is the researcher's own experience that lies at the very heart of the research process and should signify a shared production together with frontline actors, a strong involvement in the context and a desire to produce knowledge with, and for, the actors. Methods of this sort appear to be particularly judicious for conducting constructivist research into organizational knowlege. They help us to transcend the very thing that Charmaz (2000) criticizes in objectivist studies that, despite their wealth, remain 'outside of the experiences'.

One example of this approach comes from research conducted by Harrison and Leitch (2000). With the researchers fully involved in the process, collaborative discussion was encouraged to explore issues raised, and the feedback provided a starting point for a discussion which often went beyond the initial information itself:

> The participatory action research begins the process of dialogue with individuals within the company who have access to the feedback as a starting point for a process of self-development and self-awareness. And in so doing, organizations involved in such a process are likely to increasingly adopt an internally-managed action learning approach instead of an externally-facilitated participatory action research perspective. (Harrison and Leitch, 2000: 106–15)

Thus, a process of circularity and dynamic retro-action is enacted, one that impacts the research process itself and redefines it.

Clifford and Marcus (1986) underline the dilemma of the researcher's 'authority' and the impossibility of true collaboration between the researcher and the subject. In this respect, ethnographic methods call for questions in the areas relating to power differentials (Wray-Bliss, 2003). Constructivist researchers who want to reinforce the coherency between their paradigmatic foundation and research implementation should highlight a reflexive approach. This approach is associated with an embodied discourse that covers both their own status within the research project and the role that the researcher–actor tandem is supposed to play within the knowledge-development process. There is also a need to provide increased precision concerning the status of the tools they deploy in order to demonstrate the coherency with the constructivist paradigm. As opposed to a traditional triangulation of data or methods, constructivist research into organizational knowledge requires an emphasis on the varied nature of the experiences that people have in the field. This involves choosing methods that enable researcher commitment, such as action research, ethnography and participant observation.

Table 2 summarizes the fundamental hypotheses distinguishing a positivist and a constructivist conception of research into organizational knowledge. It highlights our two main proposals as well as the specific instrumentation that a constructivist positioning requires.

Table 2   Basic assumptions characterizing the positivist—activist debate in the field of organizational knowledge: some proposals[4]

Issue	Positivism and post-positivism	Constructivism
Conception of knowledge	Knowledge as a structure or concrete process	Knowledge as social construction and meaning-making process
The knowledge's priority metaphor	Knowledge as a stock	Knowledge as a flow
Conception of researcher's role	Exteriorized position (speaking from the outside). Limitation of contamination biases, distancing from methodological tools	Commitment to the system under study (speaking from the inside) Reflexivity regarding the status of the tools and of the researcher
Epistemological foundations	Reaching the truth	To obtain phenomenological insight, revelation. Assimilating the meanings and the interpretations of the context
Methods and instrumentations	Surveys Triangulations Experimentations	Action research (change to know) Ethnography Storytelling Language, action and interaction as priority modes for the creation of knowledge
Criteria of scientificity	Internal validity Consistency External validity	Appropriateness Training

Conclusion

Our study extends the organizational literature on knowledge by providing the first empirical analysis of how epistemic principles operate and by examining coherence between *espoused* principles and principles *in-use*. Of course, our work does not imply a substantive critique of constructivism. It implies a critique in the way it has been deployed in studies on organizational knowledge.

We have shown that constructivism cannot be merely defined as the study of social constructs. The socially constructed nature of organizational knowledge has been freely deployed as a defense of constructivism as a methodology. In other words, there is widespread confusion between the objects of constructivism, imputed to the actors, and methodological constructivism on the part of the observer–researcher. Our research reveals the contradictions between epistemic hypotheses and the methods used by researchers, and we argue for the need to link methods to epistemology. In this respect, our article challenges some of the contentions that abound in the literature suggesting that methods are theory-independent. In our opinion, the method used must be consistent with the value system inherent in a given epistemology. We identified a major contradiction between the conception of organizational knowledge developed and the quest

for an objective science of knowledge. This argument is all the more pertinent as these are the very researchers who wish to justify a paradigm shift. This internal conflict handicaps the process of knowledge development for constructivism. Is it possible to overcome these issues and if so, how?

We contend that adhesion to a constructivist framework requires the use of methods truly based on co-construction of knowledge between researchers and actors, and that firmly place interaction between researcher and agent at the heart of the analytical approach. We argue that this placement will allow for a balance in the power relationship between the researcher and the actor avoiding the risk of relegating 'subordinate' and 'superior' subject positions within the research process. We suggest that the researcher's role be carefully attended to within a constructivist framework and that all efforts are made to avoid exteriorizing the researcher's stance. Highlighting this reflexive nature leads us to concentrate on such methods as those employed in ethnographic research.

Nevertheless, our study reveals three main limits. First, our sample focused on one field of management, i.e., organizational knowledge. Even if this subject is particularly significant to our research question, our study would merit being enlarged to other fields of organization theory. Second, we chose articles published in leading journals, which mechanically reduced the sample. Moreover, we noted the small number of empirical studies, which illustrates the difficulty of putting into practice the enounced epistemic principles. Third, demonstration is limited to the constructivist paradigm. But this paradigm is not the only one to reveal problems of internal coherence. Other paradigms, considered today as alternative in organization theories (critical realism, evolutionary epistemology, pragmatism or postmodernism) may be potentially studied and concerned by this question.

The exercise in reflexivity that we advocate for enacting a researcher's professional role also intimates that we ask ourselves questions about our own role in this study and examine our own possible internal contradictions. Note that, first and foremost, the thesis being highlighted results from our own perceptions, and that it constitutes one analytical matrix amongst the many others that can be found in the studies in question. It is based on our own specific perspectives (*perspectivism*). We labeled the texts as well as a classifying them, emphasizing an analytical vision. Such an exercise can be quite dangerous. The labels we bestowed upon research studies can be quite illuminating as they can help to identify forms, yet they also constitute models that are replete with methodological problems and incoherencies. We should remain prudent in this respect, as labels of this sort can serve to reify research studies as well as simplify them. As noted by Schwandt (2000: 205), 'such labelling is dangerous, for it blinds us to enduring issues, shared concerns, and points of tensions that cut across the landscape of the movement'. Lastly, as stated by Lincoln and Guba (2000), questions remain as to the control of our research. Who is authorized within a scientific field to ask the relevant questions? In other words, is it possible to raise questions about the internal coherency of studies being conducted under the aegis of a legitimacy-seeking paradigm, when this paradigm has not yet been entirely institutionalized? And who are we to do this?

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Notes

1. Both authors contributed equally to this study and are listed alphabetically to reflect this.
2. Here we use the term constructivism instead of social-constructionism, even though terminologies appear to be interchangeable in the literature, and despite their significant proximities (Lincoln and Gubs, 2000; Schwandt, 1994, 2000). With reference to Gergen (1985, 1999), social-constructionism postulates that the world people create, via a process of social exchange, constitutes a reality sui generis. As stated by Schwandt (1994, 2000), social-constructionism puts greater emphasis on the social dimension of knowledge, whereas constructivists want to inject a cognitive and psychological dimension. Lastly, in line with Guba and Lincoln (1989), it would appear that constructivism refers more explicitly to research's methodological dimension, i.e., to the way in which knowledge is constructed and reconstructed – which is precisely the object of our study.
3. For example, the articles kept for the current database deal with organizational knowledge. The definition given for this concept is very distinct from its definition in positivist epistemology (see section The Constructivist Conception of Organizational Knowledge). Knowledge is seen as a stock in the positivist conception, but apprehended as a flow in the constructivist vision.
4. This summative and propositional table draws its inspiration from Lincoln and Guba (2000) and from Morgan and Smircich (1980). It has been adapted to the specific question of organizational knowledge.

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Appendix

Method

We studied 13 articles on organizational knowledge published over the last 15 years in
leading international academic journals. The choice of articles was based on theoretical
representativeness and authors who had developed their train of thought in several
publications. We first prepared an a priori evaluation table to identify indicators to be
used in systematic analysis of the articles and adopted the thematic coding method
(Miles and Huberman, 1991). We then scanned the empirical material and identified
nine categories, later reduced to four main descriptors or indicators: the nature of
knowledge, study instrumentation, type of results obtained, and methods of development

of scientific knowledge. This reduction was performed by means of comparison and reclassification (Miles and Huberman, 1991) as a function of proximity of meaning between the categories themselves and between these categories and the constructivist literature. Phase 2 involved coding each article in accordance with the four descriptors (double-blind coding), and an article-by-article comparison to assess inter-coder reliability. The elements identified in the articles were compared with the paradigm, allowing analysis of the material guided by the two central study questions: (1) What are the 'ingredients' of epistemological rupture as envisioned by authors of research on knowledge management?; and (2) If such rupture exists, how does it operate?