Organizational learning: The sociology of practice

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Abstract

A practice approach to organizational learning is based on the assumption that knowing and doing are inextricably entangled. Therefore, organizational learning takes places within working practices as a situated activity. The sociological roots of the concept of practice are traced and the expression 'practice-based studies' (PBS) is introduced as an umbrella-term. Within these studies two orientations are apparent: one which considers practices to be the object of empirical analysis (the site of learning and knowing), and one which assumes practice as epistemology.

If we consider the becoming of a practice and its function as a guide for knowledgeable collective doing, we can show that the epistemology of practice subtends a relational vision and an ecological model of inquiry within which practice is explored as sensible and tacit knowledge enacted in socio-material relations. It is then explored whether and how a practice theory of organization could come about and the theoretical and substantive contribution that it could make.

Introduction

Practice perspectives are inscribed mainly within a sociological approach to organizational learning and knowing that considers knowledge as something that people do together. Knowing and doing are therefore inextricably entangled.

While psychological approaches are better known and have founded, for better or worse, the interpretative model of organizational learning (see the critique of Weick, 1991; and Chapter 1 in this Handbook) sociological perspectives have been slower to establish themselves. The sociological contribution to the study of organizational learning (Gherardi and Nicolini, 2001) can be summarized in the terms of an invitation to view

organizational learning from a cultural perspective as a metaphor (derived from the juxtaposition of the two terms 'learning' and 'organization') that makes it possible to develop a system of representation (a theory) with which to interpret organizing as if it were a learning process. Therefore, identifiable within studies on organizational learning are various narratives concerning what constitutes that relationship and how it can be understood. The sociological concepts that have contributed most to the understanding of organizational learning have been first that of learning as participation, then of reflexivity as a dynamic of social reproduction, and, more recently, that of practice. And it is on this last concept that I shall concentrate in what follows.

Studies on organizational learning and knowing have re-appropriated the concept of practice since the late 1990s and the early 2000s. This has enabled a shift from knowledge to knowing—and therefore from an epistemology of possession (Cook and Brown, 1999) to one of practice—that is, to a conception of knowing as a practical activity. The 'practice turn' (Schatzki et al., 2001) began within studies on organizational learning and knowledge simultaneously with rediscovery of the concept of practice by other communities of scholars, such as those concerned with social studies on science and technology, feminist studies, researchers on strategy, workplace studies, and studies on activity systems. There are obviously different ways to use the term 'practice,' also because its polysemy allows its polymorphous exploration. Nevertheless, widely used in organization studies is the expression 'practice-based studies' (PBS henceforth), which is a general label for a multiplicity of diverse studies whose shared feature is an interest in the study of social practices.

In the sections that follow I shall explore the potential of the sociology of practice by reviewing the intellectual tradition that can be considered the basis for PBS. I shall then return to the polysemy of the term to draw a distinction between considering practice as an empirical object and considering it as a relational epistemology with which knowledge can be produced on the basis of an ecological model of relations, primarily that between knowing and doing. I shall then use this model to show how a practice can be analyzed during its recursive unfolding, and how it develops within an equipped environment and interactions in a texture of practices. Finally, I will organize the discussion on the potential of the sociology of practice by analyzing its theoretical and substantive contribution to organizational learning.

The Grounding of the 'Practice-based Studies' Label

The concept of practice has manifold sociological roots. Implicit reference to one or another of them brings out a different phenomenon of practice, so that the same term is used to shed light on different aspects. At the cost of excessive simplification, and referring the reader for more detailed treatment to Gherardi (2006, 2008), the main sociological theorizations of the concept of practice consist in phenomenological sociology (Schutz, 1962), symbolic interactionism (Mead, 1934; Strauss, 1991), ethnomethodology (Garfinkel, 1967), social praxeology (Bourdieu, 1972), and the theory of structuration (Giddens, 1984).

The phenomenological tradition in sociology concerns itself with the intersubjective production of sense and meaning through interaction and assembled knowledge. The world of everyday life is a province of meaning dominated and structured by what Schutz

(1962) calls the 'natural attitude', so that the world is from the outset not the world of the private individual but an intersubjective world, shared by us all, and in which we have not a theoretical but eminently practical interest. The bulk of what an individual knows does not originate from his or her experience alone, but is knowledge of social origin that has been transmitted to the individual by social relations of all types. Schutz (1946) distinguishes three components of the stock of knowledge: (i) the reserve of experience that arises from reflection on past experiences (as toolboxes, recipes and practical or theoretical routines); (ii) knowledge of social derivation (the testimony of others); (iii) socially approved knowledge (the knowledge approved by the group of membership, or by other trusted authorities). The complementarity of individual bodies of knowledge explains cooperation among individuals, so that collective knowledge derives from an assemblage of different kinds of knowledge. Knowledge is therefore social, and it is assembled knowledge. The social interaction of actors is a crucial element in understanding the acts of meaning production by knowledgeable subjects, and it is this aspect which inspired the 'practice turn' in social theory (Chia and Holt, 2008; Rasche and Chia, 2009; Reckwitz, 2002).

Put briefly, intersubjectivity gives rise not to a matching of meanings, but to the assumption that meanings are shared or, as Garfinkel (1967) puts it, to an agreement on methods of understanding. Therefore, within ethnomethodology shared understanding is a collective activity and the result of local procedures and devices. The researcher should therefore pay constant attention to the competent display of members' methods to accomplish 'sense' and 'order.' Members of any concrete setting acquire their sense or knowledge of it 'only in the doing' which is done 'skilfully, reliably, uniformly (. . .) as an unaccountable matter' (Garfinkel, 1967: 10). For members, 'the hows of these accomplishments are unproblematic' (Fox, 2006: 430), they are not the topic of competent remarks. Accordingly, the most significant innovation by ethnomethodology with respect to traditional sociology is its replacement of cognitive categories with the categories of action, and the consequent view of the creation and transmission of knowledge as a socially important practice.

This means that sociology, too, has taken up Austin's assertion that 'knowing is doing in everyday life, and it is doing society' (Giglioli, 1990: 85). In ethnomethodological studies, in fact, the transmission of knowledge as a social practice has been the focus of studies on work (Garfinkel, 1986; Garfinkel and Sacks, 1970), and ethnomethodology and conversation analysis provide one way to access how people recognize and reproduce the organizational location of their actions in and through each successive action (Llewellyn and Hindmarsh, 2010).

The phenomenological and ethnomethodological tradition is particularly attentive to the details of ordinary work practices in naturally occurring interactions (Alby and Zucchermaglio, 2006; Heath and Luff, 2007; Llewellyn and Spence, 2009; Rawls, 2008). It assumes that order is the ongoing achievement of members' methods for producing it. This tradition is therefore concerned to describe work practices in their becoming 'a practice' (Bjørkeng et al., 2009). The assumption, even if it is not always made explicit, is that knowing, learning, working, and innovating are not separate activities but are closely bound up with each other in their occurrence in time (Brown and Duguid, 1991; Orr, 1993; Cook and Yanow, 1993; Clegg et al., 2005). By contrast, the tradition of Bourdieu's social praxeology and that of structuration theory work on oppositions.

Bourdieu's methodological point of view can be defined as simultaneously 'anti-functionalist, anti-empiricist and anti-subjectivist' (Sulkunen, 1982: 103). He is profoundly convinced that it is impossible to grasp the deepest-lying logic of the social world without immersing oneself in the particularity of an empirical reality, historically situated and dated, even if only to construct it as a 'particular case of the possible.' On this view, the science of society is a two-dimensional system of power relations and meaning relations among groups. It therefore requires a twofold reading. The first treats society as a 'social physics': that is, as an objective structure grasped from outside, whose articulations can be observed, measured, and projected independently of the representations of those who live within it. This is the objectivist or structuralist point of view which analyzes society using statistical tools or formal models in order to bring out its regularities. Bourdieu believes that this is possible because people do not possess the totality of the meaning of their behavior, as if it were a given of consciousness, and because their actions always comprise more meanings than they realize.

However, a science of society must recognize that the awareness and interpretation of actors is also an essential component of analysis: individuals have practical knowledge about the world which they invest in their ordinary activities. It is by combining the two components of analysis that Bourdieu creates his 'social praxeology,' in which, however, the two components, although both necessary, are not of equal weight because epistemological priority is given to objectivist rather than subjectivist understanding.

It is here that the gap with ethnomethodology emerges, in that Bourdieu has the actor's point of view depend upon the place that he or she occupies in the objective social space. Whilst this is an idea rooted in the structuralist tradition, Bourdieu introduces two new concepts to explain the importance of relations: (i) the concept of 'field' as constituted by a set of objective and historical relations among positions anchored in specific forms of power or capital; (ii) the 'habitus', defined as a set of historical relations deposited in the bodies of individuals in the form of mental and corporeal schemes of perception, evaluation, and action. Both these concepts—field and habitus—are relational in the sense that they function completely only in relation to each other, so that a field exists only if the actors in it 'play with or against the other.' This signifies for Bourdieu that there is action, history, and the conservation or transformation of structures constituting a specific type of field only because there are agents 'in action'; and that these agents, in their turn, are efficacious only because they have not been reduced to the simple notion of 'individual' but are viewed as socialized organisms endowed with a set of dispositions which imply both the propensity and the ability to 'play the game' (Wacquant, 1992: 19–21).

Practices are collectively orchestrated without their being the outcome of the organizing action of an orchestra conductor (Bourdieu, 1972: 207). It means that we find certain games interesting because they have been imported into and imposed upon our minds and bodies in the form of what Bourdieu calls the 'sense of' or the 'feel for' the game. The practical sense—which is not weighed down by rules or principles, even less by calculations and deductions—is what makes it possible to grasp the meaning of a situation instantaneously, and to produce the appropriate responses at the same time. Only this type of acquired knowledge, in that it functions with the automatic reliability of an instinct, can furnish instantaneous responses to all the uncertain and ambiguous situations of practice.

Like Bourdieu, Giddens maintains that the prime concern of the social sciences should be neither the experience of the individual actor nor the existence of some or other form

of 'social totality', but rather a set of social practices ordered in space and time. Like certain self-reproducing phenomena in nature, human social activities are *recursive*. They are not brought into being by social actors but are constantly recreated by the same means whereby they express themselves as actors (Giddens, 1990: 4). The concept of recursiveness is central to Giddens' thought. His theory of structuration views the production of social life as a 'skilled performance,' so that social practices are construed as procedures, methods, or practical techniques appropriately performed by social agents—a definition, for that matter, which derives from ethnomethodological theory.

In his attempt to reconcile and connect the concept of action with those of structure and institution, Giddens proposes the replacement of that dualism with the notion of 'duality of structure,' where the latter is viewed both as a medium and as a result of recursively organized human action: 'a medium because it is through its use that social conduct is produced, and an outcome because it is through the production of this conduct that rules and resources are reproduced in time and space'(Mouzelis, 1989: 615). The theory of structuration is therefore an attempt to analyze both structure and action within a single and coherent theoretical framework that yields an account of social life as a series of social activities and practices performed by individuals and by means of which, at the same time, those individuals reproduce social institutions and structures.

The influence of structuration theory is particularly evident in the study of technology and technological practices, and especially in the work of Wanda Orlikowski and the group at MIT which employs the concept of practice. Inspired by Giddens' practice theory, Orlikowski (2000; Orlikowski and Iacono, 2001) suggests an analytical distinction between the technological artifact (i.e. in IT its software and hardware components) and technology-in-use, (i.e. what agents do with the technological artifacts in their situated practices). A simple type of office software, for instance, acquires different meanings for different professions, because different professionals (secretaries, accountants, consultants) develop distinct uses of the same artifact. Through their practices of the technology, people reshape IT-in-use in a situated way. Orlikowski (2002) expressly uses the term 'knowing in practice' to suggest that knowing is not a static, embedded capability or stable disposition of actors, but rather an ongoing social accomplishment constituted and reconstituted as actors engage the world in practice. The competence of the individual in knowing how to get things done is both collective and distributed, grounded in the everyday practices of organizational members.

Social interactionism, ethnomethodology, social praxeology, and structuration theory have furnished the sociological background for the linkage between knowing and acting. In general, the term 'practice' has generated in organization studies a 'bandwagon' dynamic (Fujimura, 1988) whereby various denominations—none of which has prevailed—have been proposed in order to institutionalize PBS as a field of inquiry with many elements in common. The metaphor of the bandwagon calls to mind the idea of a collective 'journey.' The concept expresses an involving activity able to bring together a heterogeneous group of subjects in pursuit of the same goal. In chronological order, the following labels have been proposed (Corradi, Gherardi, and Verzelloni, 2010): practice-based standpoint (Brown and Duguid, 1991); science as practice (Pickering, 1992); strategy as practice (Whittington, 1996); practice-based learning (Raelin, 1997, 2007); practice lens and practice-oriented research (Orlikowski, 2000); knowing-in-practice (Gherardi, 2000); work-based learning (Billet, 2001); practice-based perspective (Sole and

Edmondson, 2002); practice-based approach (Carlile, 2002); practice-based approaches (Yanow, 2004).

The label 'practice-based studies' may serve as an umbrella-term to denote a shared problematic without forcing the numerous differences that it covers into a single category. In fact, as Miettinen et al. (2009: 1313) write in the introduction of a special issue devoted to the 're-turn to practice,' 'a new organizing buzzword must be imprecise and open enough to allow people from different traditions to join without renouncing their respective worldview.'

For that matter, this plurality of theoretical origins is not surprising if one considers that organization studies constitute a multidisciplinary—and at times also interdisciplinary—field of study which also comprises a variety of eclectic approaches.

How can one find one's bearings among such a diversified array of theories developed amid the ambiguity and the polysemy of the term 'practice' (Strati, 2007; Geiger, 2009)? Ambiguity is an asset and a resource with which to develop plural interpretations. Let us therefore explore it.

The Polysemy of Practice

In everyday language the term 'practice' has different meanings. For example, it expresses something 'concrete' or 'real,' often in opposition to something 'abstract' or 'theoretical.' The theory/practice dichotomy expresses the tension or the gap between decontextualized and universal knowledge and knowledge that is situated, pragmatic, and used in a temporally defined context of action. I shall not enter into the debate on this matter here. Instead, I merely point out that use of the term 'practice' in this sense has recently spread within management studies, provoking the accusation that the interests of practitioners are neglected. The theory/practice gap has led to this charge being brought especially against Critical Management Studies, followers of which have responded by studying the practices of middle managers and redefining them in terms of the 'negotiation across interfaces of multiple rationalities' (Hotho and Pollard, 2007: 599). However, the view of practice as antithetical to theory is not one which contributes greatly to knowledge about practice, although it may subvert the symbolic relationship which sets value on theory rather than practice and conceals a gender subtext in the devaluing of situated, local, and non-theorized knowledge (Gherardi, 2010). At least three further significations are comprised in the commonplace meaning of the term 'practice.'

1. *Practice as a learning method*. People learn by 'doing' through constant repetition of their activities and discussions on the canons of their collective doing. To quote a proverb commonplace in numerous languages: 'Practice makes perfect'.
2. *Practice as an occupation or field of activity*. 'Practice' is a word able to express the field of activity in which an individual works and the body of knowledge that grounds its knowledge. Every work setting is in fact an arena of interconnected practices in continuous becoming: medical or legal practice, for example.
3. *Practice as the way something is done*. Practice is a processual concept able to represent the 'logic of the situation' of a context. The study of practice, or better 'practicing,' yields important insights into how practitioners recognize, produce, and formulate the scenes and regulations of everyday affairs.

It is not easy to reconcile the idea of practice as an empirical object (a working practice within legal practice, i.e. body of professional knowledge), particularly repeated and rehearsed action (as in practicing a distraint), with the fact that the practice in question is sustained by a specific mode of practicing that may vary from one legal firm to another. In other words, the usual act of distraint responds to criteria of good or bad practice within that community of practitioners. Practice may therefore be an object of doing, a time of doing, and a socially sustained way of doing. And in all three cases knowledge is present in the form of learning intrinsic to the doing—a knowledgeable doing—and knowledgeable doing sustained by social norms appreciative of the doing of things well, beautifully, usefully, etc. The complexity of these three senses can coexist without having to resort to a definition of practice which restricts it to the activities or operations internal to the practice, or to only the processual dimension of practice that develops through time and according to the specific modes of that doing, or only to the institutionalization of the social canons of good or bad practice. We may say with the words of Llewellyn and Spence (2009: 1420) that 'practice is reproduced through ordinary activity, but at the same time practice is a resource that enables people to recognize and assemble situated activities.'

The polysemy of the term 'practice' is apparent in everyday language (Antonacopoulou and Pesqueux, 2010). When the term is transferred to academic settings not only does it not disappear but it acquires a further element which, ironically, refers precisely to the everyday life and to that knowledge which is difficult to articulate. Generally, when the concept of practice enters academic settings, it is associated with the following elements: (i) intentional and goal-seeking actions that also have a habitual character and follow certain general principles of procedure (Turner, 1994: 8); (ii) the kind of practical and 'hidden' knowledge that supports them (see Tsoukas' chapter in this Handbook; and Tsoukas, 1998).

In this regard, a tension arises in the literature because—as Joseph Rouse (2001: 191) maintains—there are two fundamentally different conceptions of practices:

1. Practices identified with regularities or commonalities in the performances or presuppositions of some community of human agents.
2. Practices characterized in terms of normative accountability of various performances.

According to the first definition, practices are 'arrays of activities' that constitute models, or bundles of activities; while in the second definition, practices can instead be viewed as 'ways of doing things together.' Those who adopt the first definition are interested in knowing and describing 'the what question' (inside a practice), while those who choose the second are interested in 'the how question' (a practice is practiced).

Rouse criticizes the former conception and argues that the accountability which binds a practice together need not involve any underlying regularity, nor even presuppose an uncontested formulation of norms. Of interest is the footnote where he argues in favor of the second conception by citing Davidson (1984: 445) to draw an analogy with understanding and using a natural language, which 'involves no learnable common core of consistent behaviour, no shared grammar or rules, and no portable interpreting machine set to grind out the meaning of an arbitrary utterance.' This analogy with the use of a language and the concept of accountability highlights the crucial role played by language, which by means of discursive practices produces not only intelligibility but also moral order. The concept of accountability enables us to view reason not as an innate

mental faculty but as a practical accomplishment. The social dimension is the key to understanding the reasons that induce a group of actors to practice continuously and repetitively, adjusting their activities to ongoing changes and molding their 'doing' to the situational rationality of the context in which they interact. Paradoxically, the term 'practice' has the connotation of being something transferable, teachable, transmittable, or reproducible (Turner, 1994), but at the same time practices are difficult to access, observe, measure, or represent because they are hidden, tacit, and often linguistically inexpressible in propositional terms.

To conclude this section on the polysemy of the term, and therefore on the difficulty of understanding what we are talking about when the term 'practice' is used, I shall now itemize the different linguistic uses made of it. I have already mentioned its *oppositional* theory-versus-practice use which subtends analysis of practice as concrete action in contrast with an abstract theory. A second use is *analogical*: a certain phenomenon is studied 'as practice.' In this case, there are two well-known strands of analysis that have developed on the basis of analogical use of the term: science as practice, and strategy as practice. The former arose in the 1990s with the laboratory studies that focused on the practices that produce science, and therefore described the manufacture of science (Knorr-Cetina, 1981). Their purpose was to criticize science as discovery and to dethrone rationalism and positivism. They were consequently interested in the working practices whose subject-matter was knowledge and in interpretation of how epistemic objects and epistemic communities are formed. The second strand—strategy as practice—assumes the term 'practice' to study strategy as a doing and as a process (strategizing). It has little interest in practice, and its intention is not to contribute to a theory of practical knowledge, but rather to criticize prescriptive and top-down models of strategy.

A further use of 'practice' is *topological*. Practice is the place where knowledge and learning come about, are preserved, transmitted, and changed. The metaphor of practice as a container is the most accredited in the literature since its beginnings with the concept of community of practice and identification of specific working practices in which practical knowledge can be studied as knowledgeable collective competence and capacity for action. Hence, practice is the site of knowing and also the site of organizing (Brown and Duguid, 1991). With regard to this ontological meaning of practice as the site of knowing and organizing, it is interesting to note how it objectifies practices as empirical objects and the building blocks of an organization, while at the same time blurring the boundaries between working and organizing. The terms 'working practice' and 'organizational practice' are often interchangeable. Having identified a specific practice, the researcher is concerned to describe the activities that constitute it. Studies of this kind have been conducted on flute making (Yanow, 2003), the construction of safety (Gherardi and Nicolini, 2000; Styhre, 2009), bridge-building (Suchman, 2000), animal qualification practices (Labatut et. al, 2009), and making of nanoreactors (Olsen, 2009).

A final meaning of the term 'practice' is *transformative*, and it refers to the fact that knowledge transforms itself through its use: a process which can be studied and described in light of the circuits which reproduce practices and networks of practices (Brown and Duguid, 2001) or of the texture of practice (Gherardi, 2006). In this sense, practice constitutes an epistemology of the relationship between knowing and acting. The question of the true value of knowledge and of the manner in which it is acquired is replaced by questions concerning how knowledge circulates, how it is transformed by being transferred,

and how it is produced in contexts of practices. Epistemology usually concerns itself with the conditions for the validity of knowledge (logic of verification) or, as in pragmatism, with the conditions for the production of knowledge (logic of discovery). What is still beyond its reach is study of the epistemological conditions for the circulation of knowledge, or, in other words, how knowledge transforms itself through its use; what I term a 'logic of transformation.'

A logic of transformation implies a relationship of equivalence or of non-difference between knowing and practicing. The expression designates a relational epistemology in that the two terms are ontologically inseparable from the outset (1987), but are instead performed in the course of specific material-discursive practices. Let us see in detail what adopting a relational epistemology entails, and how practice as epistemology can contribute both theoretically and substantively to looking at organizational learning as a situated activity.

The Epistemology of Practice

To gain better understanding of the epistemology of practice—and therefore move away from analysis that privileges action as the product of actors in a given context—it is useful to recall how Ira Cohen (1996) distinguishes between theories of action and theories of practice. We may say that whilst the former theories privilege the intentionality of actors, from which derives meaningful action (in the tradition of Weber and Parsons), the latter locate the source of significant patterns in how conduct is enacted, performed, or produced (in the tradition of Schutz, Dewey, Mead, Garfinkel, and Giddens). Hence, theories of practice assume an ecological model in which agency is distributed between humans and non-humans and in which the relationality between the social world and materiality can be subjected to inquiry. Whilst theories of action start from individuals and their intentionality in pursuing courses of action, theories of practice view actions as 'taking place' or 'happening,' as being performed through a network of connections-in-action, as life-world and dwelling (as the phenomenological legacy names them, see Sandberg and Dall'Alba, 2009).

The adoption of an ecological model that gives ontological priority to neither humans nor non-humans, or discursive practices, constitutes the fundamental difference between theories of action and of practice. It is in this interpretative framework that the difference can be grasped between the study of practice as an empirical object and the use of practice as epistemology. The difference is based on the attribution to practice of a realist ontology (that objectifies practices as primary units) and a social constructionist conception that does not distinguish between the production of knowledge and construction of the object of knowledge (between ontology and epistemology). From this derive different methodologies for the conduct of practice-based studies (Charreire-Petit and Huault, 2008).

One may answer the question as to what type of epistemology the epistemology of practice is by referring to Østerlund and Carlile (2005), who illustrate, through a re-reading of three classic studies on communities of practice (Lave and Wenger, 1991; Wenger, 1998; Brown and Duguid, 1991, 1998, 2001), how practice epistemology is based on a relational thinking in which the practice is the locus for the production and reproduction of social relations. The three studies not only select a specific practice to study (Lave and Wenger focus on the relation between newcomers and old-timers, Wenger on identity

formation, and Brown and Duguid on community knowledge and canonical versus non canonical practices) but also choose to study this practice with regard to a limited set of relations characterized by specific differences, dependencies, changes, and power dynamics. But aside from the specific practice that can be studied and the relationships on which an author may choose to focus, the main feature of practice as relational epistemology is its focus on the emergence of relations through ongoing interaction and their normative stabilization.

Not only do subject and object define each other within a context of interaction, but the relationship between the material and the discursive comes about as a single phenomenon in which materiality is social—as social studies on technology have shown (Law, 1994)—and the process of meaning-making encompasses material semiosis. The term 'sociomateriality' has come into use after removal of the hyphen between the two terms (Orlikoswki, 2007; 2009). And the term 'intra-action,' coined by Barad (2003; 2007) to locate the relationship of mutual determination between subject and object, has also entered the lexicon of organization studies (Iedema, 2007; Nyberg, 2009) in relation to practice as epistemology. In other words, it is in the historically situated context of a practice that the knowing subject, the object of knowledge, and sociomateriality are involved in the processes of 'becoming' through which their identities are materially negotiated and (re)confirmed (Chia 2003: 106).

The epistemology of practice makes it possible to articulate the dynamic that occurs between the becoming of a practice as a socially sustained mode of action in a given context and the 'given' sociomaterial context in which it develops. Practice is situated between the given and the emergent as an element in the social order. If, therefore, practice is different from action, if it is not an ontologically distinct entity, we may ask how a practice becomes such, what relationship it assumes with other practices, and what effects it produces.

The Becoming of a Practice and its Stabilization

A metaphor which aptly illustrates the way in which a practice emerges and is socially and materially sustained is that of climbing, as described by Hennion:

> What climbing shows is not that the geological rock is a social construction, but that it is a reservoir of differences that can be brought into being. The climber makes the rock as the rock makes the climber. The differences are indeed in the rock, and not in the 'gaze' that is brought to it. But these are not brought to bear without the activity of the climb which makes them present. There is co-formation. Differences emerge, multiply and are projected. The 'object' is not an immobile mass against which our goals are thrown. It is in itself a deployment, a response, an infinite reservoir of differences that can be apprehended and brought into being.
>
> Hennion (2007:100–1)

Hennion thus illustrates the relationship of co-formation between sociomateriality and identity, but he only alludes to the fact that the same relationship exists between the doing—climbing—and the knowing: that is, knowing how to read the rock, seeing the handholds that become such only at the moment when the climber sees them and makes them handholds for his or her next move. This knowing how to read the context as

a 'reservoir of differences,' knowing how to identify the handholds for the next action, knowing what the next action will be (Garfinkel's 'what next,' 1996), and possessing the vocabulary to talk competently about climbing, are things that are collectively learned, transmitted, and transformed during practice and as an effect of it.

We may imagine what can constitute a handhold for the development of practical knowledge by assembling an ideal toolbox that enables description of a practice while it is being practiced.

Professional vision

We may start with the image of the climber who looks at the rock with expert eyes and for a practical purpose. We may say that the climber possesses and develops by doing what Goodwin (1994: 606) has called 'professional vision.' He defines professional vision as 'socially organized ways of seeing and understanding events that are answerable to the distinctive interests of a particular social group.' All vision is perspectival and lodged within endogenous communities of practitioners. An archaeologist, a farmer, or a builder will see different things in the same patch of dirt because they look at it from different professional 'visions.' The skill of seeing (and looking) is gained through constant and situated use of directions and micro-explanations: the novice is *taught how to see* (Goodwin and Goodwin, 1996); the climber, while climbing, enacts his or her background knowledge of how to look in order to see. The ability to see a meaningful event is the effect of a socially situated activity accomplished through discursive practices which employ specific professional vocabularies. As we have seen, objects of knowledge emerge from the interplay between a domain of scrutiny and a set of discursive practices deployed within a specific activity.

Three activities shape a domain of occupational knowledge (Goodwin, 1994):

- coding, which transforms phenomena observed in a specific setting into the objects of knowledge that animate the discourse of an occupation;
- highlighting, which gives salience to specific phenomena in a complex perceptual field by marking them in some manner; and
- producing and articulating material representations, which embed and structure the knowledge produced and transfer it through space and time.

I shall interpret the term 'professional vision' in a broader sense in order to include both the physical act of seeing and its outcome, that is, a professional vision as a culture of practice. In fact, the same act of developing a professional vision comprises the two principles of stabilization of a practice, and its institutionalization. When material representations are codified and articulated, some ways of doing are inscribed in tools and artifacts (vocabularies as well); when 'phenomena' are highlighted, not only are they marked in order to distinguish them, but they are also marked according to an ethical and aesthetic code of practice. When Garfinkel says that members make settings accountable, that is 'observable and reportable', he means accountable rationally *and* morally. Moral order and social order are shown to be inseparably intertwined in-and-as the practical details of work interactions (Fox, 2008).

Aesthetic knowledge

Let us return briefly to the metaphor and the practice of climbing. Note that it has induced first Hennion and then us (via Goodwin) to use the metaphor of vision, but to neglect another form of knowledge embodied in the climber, namely touch. A handhold is one of the circumstances that aids the becoming of the action, but knowing how to see a handhold is not enough. For it to be a handhold, the fingers must have touched it and tested its firmness in relation to the climber's physique and agility. This further elaboration of the initial metaphor serves to highlight that the activity of knowing is not only situated in a context that furnishes resources for action but is also a bodily activity that relies on sensible knowledge and that mobilizes the perceptual faculties of the five senses. Aesthetic knowledge is always involved whenever flesh-and-blood human beings act. Put otherwise, the study of practices gives visibility to that form of practical knowledge which is anchored in the body, in the sensory faculties, and which is developed in corporeal patterns and cultivated as aesthetic judgment and as the aesthetic code of a practice.

On the other hand, all this makes practice difficult to express verbally both for practitioners and for researchers, who have difficult access to this knowledge resource and a paucity of vocabulary with which to describe it. I shall return to the methodological aspect later. Here I wish to emphasize that practitioners are in no better position than researchers regarding their capacity to know in terms of objectified knowledge and to express in words a *savoir faire*, an embodied knowledge, and an ability that resides in the fingers, the eyes, the nose, or the ears. These abilities, which are apparently an individual 'endowment,' and seemingly reveal a particular talent, are in reality the effect of a social practice and a collective process of learning and knowledge transmission.

Discursive practices

To provide an example of how language and discursive practices constitute 'handholds' for practice, I refer to an article by Geneviève Teil (1998) which describes how she learned to develop taste during a course to train the sense of smell. This sense and the professional skills associated with it constitute a field of expertise in demand by both the food and perfume industries. This ability can be learned in the surprisingly short period of five days, but its maintenance requires constant practice. In order to study the transmission of this knowledge, Teil attended the course and conducted self-ethnography as well as participant observation.

How, therefore, does one become a taster? Teil describes how learning produced changes in tastes and in olfactory practices during the training course, and how this brought about a change in the relationship between the novice and the object through:

- learning how to manage one's body and brain, so that the 'olfactory tool' is circumscribed within the body;
- learning how to use it in accordance with collective norms; and above all
- learning how to check its operation in a suitable way.

The trajectory of learning therefore proceeds through (a) feeling (perception of sensory impressions which delimit a context and an olfactory measure, and control over the

brain's interpretations), (b) describing (development of a classificatory language with which to categorize sensations and to communicate, abandonment of the hedonism of feeling oneself naive, acquisition of an expert aesthetic to judge sensations), (c) using (to stabilize the link between the odor and its olfactory descriptor, gaining control over application of the metrological criteria that enable measurement of the relationship between describer and odor, and relying on the network of practitioners in order to heighten the performance of the olfactory tool).

From Teil's theoretical analysis we learn not only that the learning of sensory knowledge develops through stages extending from the mundane knowledge of the novice to the mastery of expert knowledge within a professional community, but also how participation in the community is contextual to the learning of an expert language with which to express aesthetic judgments.

Discursive practices, as in the community studied by Teil, also support the formation of aesthetic judgments and their negotiation within a particular occupational community. But all occupational communities comprise the collective process of taste-making (Gherardi, 2009) that lays down the aesthetic canons for judgment of what must be considered a beautiful practice or an ugly one, a correct but inelegant practice, and so on. This reference serves, on the one hand, to emphasize how a certain mode of practicing is sustained by aesthetic (and ethical) criteria intrinsic to the activity itself and formulated during its performance, and, on the other, how situated discursive practices are intrinsically reflexive, that is, provide their own accountability.

To be noted is that, contrary to a widespread tendency to overestimate the role of sharing (shared understanding, shared signification, shared values) in collective action, it is non-sharing—or better minimal and partial sharing—that is a circumstance for both the action of looking for signification, and a driver of constant change in practice which comes about through negotiation on meanings and the ethical (Clegg et al., 2007) and aesthetic criteria of that practice. In other words, to use a musical metaphor, it is dissonance and not the canon which produces new music (Gherardi and Nicolini, 2002).

The equipped environment

Returning once again to the metaphor of the climber and the co-production of handholds during a climb, we may ask what happens to the interpretation if the material environment, besides addressing the subject and being in a certain sense 'active' in the interaction, is somehow equipped to facilitate the climb if the climber regularly returns to the rock face or leaves pegs to help other climbers, or, again, sets up a rock climbing gym. What I want to show with this shift of perspective is that when a practice becomes such—that is, it has become recurrent and coalesced into habits—the context of the practice is very probably an equipped context in which the main handholds for regular performance of the practice are known; they have been made familiar by repetition of the practice; they have been equipped so as to elicit their habitual use. It is now that artifacts, tools, objects, and technologies come into play, and therefore the relationship with materiality (Svabo, 2009) which anchors relations and meanings and 'suggests actions.' Numerous concepts have been proposed to express this interpretative shift from the context as a 'container' more or less neutral and indifferent to the actions that develop within it to the context as a resource (Lave's 'arena' and 'setting'): the idea of in-strumentation (Rabardel, 1995) as an

arrangement to have a relationship of instrumentality (i.e. that instruments are not such in themselves but become so in the relation with the action that they serve); the affordance (Gibson, 1979) of materiality that suggests its use to support a utilization; the intra-action of Barad (2003) which co-articulates meanings and materialities; the concept of 'jigging' (Kirsh, 1995: 37) as a way to prepare and structure the environment. The more completely prepared the environment is, the easier it becomes to accomplish one's task.

In other words, the recursiveness of practices establishes a relationship of co-production with the environment in which not only are the handholds for action discovered in the course of that action, but delegated to these handholds is the execution of certain operations of the same practice or certain functions, such as reminding (Grosjean and Bonneville, 2009), where helping not to forget is anchored in the materiality of signaling artifacts and technologies.

Finally, embedded in the theme of the equipped environment that anchors activities by suggesting to practitioners 'what next' in performance of the practice is a metaphor which conveys the sense of how humans and artifacts intertwine for the fluid performance of a practice. This concerns the idea of improvised choreography proposed by Whalen et al. (2002) when describing the arrangement of the objects and the gestures, as well as the body, of a call center operator. Just as choreography is a matter of space and time, so the operator conveys to the caller that the latter's request is being handled fluidly—without impeding the interaction and therefore with competence—by skilful management of an equipped environment and with a cadence that does not leave gaps in the interaction.

Recursiveness as stabilization and legitimation

In my use of climbing as a metaphor for seeing organizational learning as the becoming of a discursive and material practice, situated in the relationship between knowing and doing, I have tried to highlight both the dynamics of becoming—as a sequential discovery of handholds for doing—and the dynamic which stabilizes relations for a recursive and knowledgeable doing. I shall now dwell on this latter dynamic to synthesize how stabilization of a practice—that is, acting on the circumstances in the expectation that they will re-occur and therefore form a historical and cultural knowledge which supports the practice—is founded as much upon social elements as material ones. Stabilization in materiality takes place through anchorings in discursive and technological practices, in the artifacts of the practice, but these are not unconnected from the cultural process that a practice institutionalizes by attributing ethical and aesthetic values to the modes of doing and stabilizes them as a normative system (creating further artifacts of the practice such as codes, norms, auditing systems, laws). Finally the practice is further stabilized by being embedded in a texture of practice that the action connects and recalls.

The Theoretical Controbution Made by the Study of Practices

We have seen that importing the concept of practice into organizational learning studies has given rise to a large body of literature on practice, thus confirming the intuition of Easterby-Smith et al. (2000) that the emergence of practice as a unit of analysis would be

one of the most promising developments within organizational learning. Let us now see whether we can intuit the components of a practice theory of organizations.

An organizational theory is nothing other than a system of representations, and in this case it is based on the idea that 'organizing' derives from the practical modes in which the entanglement between doing and knowing finds its direction and purpose by anchoring itself in materiality and discursiveness.

The base components of a practice theory of organizing are given by defining practice as a collective knowledgeable doing which is socially sustained. The feature which distinguishes practice from action is its recurrent nature. The recursiveness of practices is what enables the reproduction of the organization in its everyday routine. Working practices, in fact, are the elements of shared meaning that allow us to go to work day after day without having to invent every morning what we must do, and without having to negotiate it with our colleagues. Just as society and social relationships must be reproduced day after day and meeting after meeting, so organizations are reproduced every day through the repetition of their relational and normative elements. If a practice were to cease owing to the various reasons for which it is practiced, it would no longer be a practice.

The idea that for a practice to be a practice it must be seen as such by its practitioners, and must therefore be socially sustained, comprises two notions: first that sustaining a practice requires the concurrence of action, so that it is recurrent; second, that it is recurrent because it is institutionalized, that is, sustained by values, beliefs, norms, habits, and discourses. In this process, materiality concurs in the coalescence of the practice through artifacts, the 'equipped' environment, the limitation of interpretative possibilities. We can accordingly say that practice also functions as a guide to action. Not only, therefore, does practice contain a concatenation of operations that make sense to practitioners; it also provides for its accountability in terms of good, correct, wrong, beautiful, and so on, practice.

Just as the everyday reproduction of an organization is driven by the recursiveness of practices, so the idea of change has a particular meaning. It should of course be specified that the idea of reproduction is more similar in its social meaning to the reproduction of the species than to mechanical reproduction by a photocopier. Consequently, intrinsic to the reproduction of practices is the idea of change as a continuous process, a 'repetition without repetition' (Bernstein, 1996; Clot, 2002a), a dynamic that follows the logic of transformation. Just as an orchestra never repeats its performance of a symphony in exactly the same way, so organizational practices are recurrent but never identical. In a certain sense, inherent to the concept of practice is the operation of a contingent logic, not an *a priori* rationality, in that the bravura of practitioners (like orchestra members) resides in their capacity to reproduce the 'same' performance in spite of the varying conditions in which they do so. This is the criticism that the concept of situatedness has brought against the logic of formal and rational prescription. The distinctive dynamic of change in practice, moreover, does not consist solely in the use of the resources 'at hand' to deal with variability and shortages, and thereby reproduce 'the same' amid the changeable. It also involves the social process whereby practitioners are attached to their practices. Hence, refining the object of the practice is to celebrate the ability of the practitioners, their self, and the feelings of care and pleasure that practicing produces. Put otherwise, practices are meaningful to practitioners, they can be objects of love or hate, and they indubitably constitute emotionally involving relations.

Finally, another theoretical contribution that may be forthcoming from a practice theory of organization consists in resolution of the dichotomy between organization and environment. Practices are more directly and closely interconnected, but every practice links with another one. We may therefore say that it is connection-in-action which weaves practices into a texture, or into a 'seamless web,' to use Star's expression (1995). A practice does not stop at the boundaries of the organization; vice versa social practices extend into an organization, just as the knowledge involved in a practice does not stop at the boundaries among different professionals.

The way in which the concept of practice has been appropriated by organization studies has, I believe, the potential to develop a practice theory of organization of which we can see today only the first glimmerings. To buttress this opinion of mine, I shall now examine, even if briefly, the main substantive contributions made by PBS.

The Substantive Contribution Made by the Study of Practices

In focusing on the contribution of organization studies concerned with practice, and to outline the problems studied from this perspective, one must start from the fact that—at least within studies on learning and knowledge in organizations—the practice perspective has emerged as the third way between mentalism, on the one hand, and the commodification of knowledge on the other (Gherardi, 2000). Hence, the inseparability of knowing and doing is assumed, yet practice-based learning is elusive (Contu and Willmott, 2000).

The interest in working practices arises from the fact that they are opaque: new technologies are embedded in already-stabilized practices; new technological systems have spatially dispersed communities working together. It is therefore necessary to know work practices to design technology to support them. Working practices are also opaque to their practitioners. The practice perspective has proved very productive when it has been linked with action research understood in the broad sense as practice development. That is to say, the main beneficiaries from the description and discussion of working practices are the practitioners themselves. In this regard, there are numerous initiatives that can be mentioned. The Helsinki Center for Activity Theory and Developmental Work Research has a 'Change Laboratory' designed to arrange a space comprising a rich set of instruments for analyzing disturbances and for constructing new models for work practice (Engeström, 2000). Opportunities given to homogeneous groups of practitioners, or to groups with members from several departments or organizations, to discuss their working practices not only foster reflexive learning but also lay the bases for bringing tools of daily work and the tools of analysis and design closer together—in a new dialectic of instrumentalities.

To be emphasized from the methodological point of view is the potential of video-recordings made of working situations and then shown to practitioners. Video-recordings have been widely used by workplace researchers interested in the fine-grained analysis of the real-time organization of work practice (for a review see Hindmarsh and Heath, 2007). This approach encourages close consideration of the discursive, embodied, embedded, radically contingent, deeply interactional, and tacit production and organization of work practice (Borzeix and Cochoy, 2008).

We may say that whilst the Change Laboratory is concerned with the intersection between working practices and organizational practices, workplace studies are more attentive to the performance and the spatial and temporal details of work activities and cooperation organized through interaction. A more clinical concern is shown by the French 'Clinique de l'Activitè' group (Clot et al., 2002b). Here researchers attempt to create a framework that favors the development of professional experience for the group engaged in the co-analytical process aimed at increasing individual subjects' power to act. The first stage is dedicated to the creation of a group for the co-analysis of work processes. The main idea is that of self-confrontations and crossed-self confrontations: subjects are confronted with their activity and then become involved in professional controversies. A cycle builds up around what the workers do, what they say about what they do, and ultimately what they do about what they say. A similar approach is adopted by a set of methods—which Shotter and Katz (1996; and Katz and Shotter, 1996) call 'social poetics'—for use by a group of practitioners in achieving a more composite grasp of their own practices, and thus to develop them.

What is important in this methodology is less how a group of people involved in the joint conduct and discussion of a practice respond to each other's different activities within it than how they are each 'struck by' certain fleeting moments within the ongoing conduct of the practice. The assumption is that these moments 'gesture towards,' 'express,' or 'manifest' something special in their shared lives together, and suggest connections and relations which were previously unnoticed.

My purpose in reporting these four initiatives in what we may call 'developmental practice' has been to underline how the representation of practice, by the researcher or with the researcher, is a stimulus for explicitation of that knowledge entangled in doing which may enable better verbal expression of what is known and is enacted in doing, and of which the individual may have scant awareness. At a collective level it is an opportunity for the explicitation and negotiation of the assumptions implicit in practice and which practitioners do not have opportunities to confront. Articulating practice discursively and collectively may become the situation where that part of practice which is obscure because it is not perceived or not recorded acquires an objectified existence and becomes a collective experience for the group (Blackler and Reagan, 2009). This may engender a revision of the practices of organizing.

Finally, it must be pointed out that the methodological contribution to the study of practices has been an important factor in the development of PBS. But it should also be said that the representation of practices, although crucial, is not particularly advanced, with the exception of Nicolini's (2009) study on projective techniques and of those by Mondada (2003) and Hindmarsh and Heath (2007) on the use of video-recordings for the study of practices.

Conclusions

The highly symbolic transition from the term 'knowledge' to that of 'knowing' has opened the way for a view of knowledge as first a process and, subsequently, as a practical activity. In this way, the community of organizational learning and knowing scholars has appropriated the concept of practice to develop a practice theory of organization.

In the foregoing brief description of the developments brought and promises offered by the 'practice turn,' I have shown how 'practice' is a polysemous term with a long pedigree in sociology which ideally continues the sociological contribution to the study of organizational learning. The polysemy of the term may be an obstacle, but it is also a source of interpretative richness.

The richness of the term is evidenced by the proliferation of labels intended to unify and synthesize the approach, which by so doing have set the bandwagon of studies on practice in motion. We may therefore assume the expression 'practice-based studies' (PBS) as an umbrella-term which covers a host of practice-based studies. Within these studies two orientations are apparent: one which considers practices to be the object of empirical analysis (the site of learning and knowing) and one which assumes practice as epistemology.

In privileging the second of these meanings, I have highlighted that it subtends a relational vision and an ecological model of inquiry within which practice is regarded as a phenomenon emerging from the entanglement of knowing and doing. If we consider the becoming of a practice and its function as a guide for knowledgeable collective doing, we can show that the epistemology of practice enables appropriate exploration of sensible and tacit knowledge enacted in practice, together with the body as an active source of knowing, as well as materiality and sociomaterial relations.

I have then explored whether and how a practice theory of organizations could come about and the theoretical and substantive contribution that it could make. Further reflection should indicate directions for future analysis. But given the way in which this field is flourishing in such disorderly and haphazard manner, I would say that exploration in any direction is justified. When the one hundred flowers have given way to more mature theoretical inquiry, the problems and aspects that should be explored systematically will become clearer.

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