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## Introduction: Toward a Practice-Based View of Knowing and Learning in Organizations

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Davide Nicolini, Silvia Gherardi, and Dvora Yanow

### Beginnings

In recent years the concepts of practice and activity have attracted the attention of academics and practitioners working on learning and knowledge in organizational and work settings. These scholars and practitioners have all begun to explore the implications for research and intervention of the notion that knowledge and learning are mainly social and cultural phenomena. The result is increasing interest in the thesis that organizational knowledge and learning cannot be conceived as mental processes residing in members' heads; rather, they must be viewed as forms of social expertise, that is, as knowledge in action situated in the historical, social, and cultural context in which it arises and is embodied in a variety of forms and media.

Although they originate from different intellectual backgrounds, these views contribute to the emerging area of practice-based theorizing on knowing and learning in organizations. This approach assumes that knowing precedes knowledge, both logically and chronologically, for the latter is always an institutionalized version of the former. Scholars at work in this area investigate the theoretical implications and practical consequences of this depiction of organizational knowing as situated in the system of ongoing practices of action, as relational, mediated by artifacts, and always rooted in a context of interaction. Such knowledge is thus acquired through some form of participation, and it is continually reproduced and negotiated; that is, it always dynamic and provisional.

The aim of this book is to provide an overview of the work of authors who have taken up the challenge of addressing knowing, learning, and organizing processes from a practice-based perspective. The collection has grown from papers originally presented at a Symposium at the 1998 Academy of

Management Meeting in San Diego. The aim of this very well received symposium was to introduce this area of research to a broad academic public concerned with organization and management studies. Most of the presentations were then collected in a special issue of *Organization* (vol. 7, no. 2, 2000). Given the growing interest in these topics, we decided to supplement the material already available<sup>1</sup> with several other original studies in order to provide a broad overview of the variety of ways in which these new approaches can be put to work in organizational studies. Our aim was to assemble a volume representative of the major voices in the ongoing conversation. We were not trying cover the current debate in its entirety; rather we wanted to provide a representative and convincing snapshot of the state of the conversation on these topics and to set this kind of approach firmly on the map of organizational and work studies.

Accordingly, collected in this book are studies carried out within four distinct intellectual traditions that we believe currently represent the most promising ways to address the phenomena of knowing and organizing from a practice-based perspective: the interpretive-cultural approach, the “community of practice” approach, the cultural and historical activity theory approach, and the sociology of translation approach also known as actor network theory. We would stress that the collection is not intended to be a thoroughgoing survey of these four approaches. Although several of the papers clarify their theoretical backgrounds and provide extensive references, the main purpose of the collection is to illustrate the effects brought to bear by each of the approaches when applied to work and organizational studies.

Accordingly, this introduction highlights some of the common themes emerging from the book’s chapters and reiterates the rationale and advantages of a practice-based approach to knowing and learning in organizations.

### **Why We Need a “Practice-Based” Vocabulary**

For the last three decades a growing number of authors have emphasized the centrality and strategic importance of knowledge in postindustrial organizations. This emphasis has sprung from Galbraith’s (1967) pioneering studies on “knowledge workers,” Bell’s (1973) thesis on the value of intangible and intellectual assets in the postindustrial economy, and Schon’s (1971) essay on instability and change. This phenomenon is one aspect of the profound changes that affected societies worldwide in the last part of the twentieth century and it goes hand in hand with the globalization of economic processes and markets, the declining importance of manual labor in the West, the diffusion of innovation, and the emergence of information and communication technologies. In describing these global phenomena, scholars have

coined such expressions as “postindustrial era,” “information age,” and “knowledge society,” which have become part of common parlance. By general agreement, the growing centrality of knowledge extends well beyond the limited domain of “knowledge intensive” organizations. All types of organization, the argument goes, increasingly depend on their capacity to effectively mobilize and manage knowledge in order to fulfill their missions and thrive (Nelson and Winter, 1982; Drucker, 1993).

One consequence of this emerging “knowledge-centered” discourse has been burgeoning interest, at all levels, in the issue of organizational learning and knowledge creation and management. For example, a bibliometric study conducted by two Canadian scholars in 1996 found that, between the end of the 1980s and the beginning of the 1990s, the number of articles on organizational learning in academic journals and business magazines grew exponentially, almost doubling in number year by year (Crossant and Guatto, 1996). This striking trend slowed down at the end of the 1990s only to be replaced by expanding interest in the topic of “knowledge management” (Scarborough et al., 1999).

As appears from surveys of the literature on organizational learning and knowledge management over the years (Fiol and Lyles, 1985; Nicolini and Mezner, 1995; Easterby-Smith, 1997; Dierkes et al., 2001), the majority of the scholarly and practitioner-oriented contributions on these topics use conceptual repertoires that take notions and constructs previously developed in the fields of biology, psychology, economics, cybernetics, or education and apply them in management and organizational studies.

A first group of authors uses approaches that conceive of knowledge as the codification of experience in some form of cognitive structure or behavioral pattern, and of learning as the process through which such structures and patterns change (Kim, 1993; Fiol and Lyles, 1985). Accordingly, organizations are equated with entities that process information, reflect on experience, and in this way acquire knowledge. To the extent that they modify their internal system of beliefs and their actual or potential behavioral repertoires, these organizations are said to have “learned.” This understanding of knowing and learning constitutes the somewhat acritical transfer of a set of concepts from one field, individual psychology, where they have been linked to human development and cognitive capabilities, to organizational and management studies. In order to extend the same categories and concepts used to explain human cognition, learning, and behavior to social organizations and firms, however, these authors must perform one of two equally undesirable operations: either they must still conceive knowing as something that resides in the heads of individuals, and then use the artifice of “levels” in order to explain organizational phenomena (Kim, 1993), or,

alternatively, they must anthropomorphize organizations and conceive of them as superindividual entities in order to effectuate the transfer to them of individual human characteristics.

A second group of authors conceptualizes knowledge as an immaterial and atemporal substance: knowledge can thus be taken out of context, recorded, classified, and distributed. Davenport and colleagues, for example, define organizational knowledge as a form of “high value-added information” (Davenport et al., 1998: 43), while Nonaka et al. describe it as “a set of significant information which constitutes true and justified belief and/or implies a technical competence” (Nonaka et al., 1996: 295).

Finally, yet another group of scholars adopts an economic and finance-oriented approach. From this perspective, knowledge is an “invisible” asset and a form of “intellectual capital.” It can be quantified, estimated, accumulated, and exchanged as a high-valued commodity. For these authors, therefore, it is possible to establish measures of a firm’s intellectual and knowledge capital, to ascertain its market value and its contribution to the profitability of the firm, and to put appropriate techniques in place to monitor and manage it (Stewart, 1994; Bontis, 1997; Nahapiet and Ghoshal, 1998). As in the previous case, knowledge is reduced to something very akin to information that can consequently be stored, retrieved, and processed by modern communication technologies.

From our perspective, the main shortcoming of all three approaches is that they tend to translate uncritically into the organizational terrain conceptions of knowledge that have prevailed for centuries in Western cultures but which philosophers and social scientists of the last two generations have subjected to scrutiny and severe criticism. The conceptualization of knowledge as an object instead of a process—that is, as a mental substance mainly located in individual minds and manifested in written texts, representations, and routinized behaviors—is needlessly and, in our view, erroneously restrictive. Most of the debate in management and organizational studies ignores, for example, the growing attention to the social and processual aspects of knowing and learning that stems from traditions such as phenomenology, pragmatism, symbolic interactionism, Wittgenstein’s thought, deconstructionism, and poststructuralism. As a consequence, much of the discussion on learning and knowing in organizations is carried out at an unacceptable level of simplification and superficiality in a void exclusive of developments outside organizational studies, and appears at times intellectually unsophisticated and simplistic. Several of the topics and arguments are alarmingly antiquated. For example, Nightingale (2000) demonstrates that a significant part of the contemporary discussion of knowledge management is a revival or even merely a rehash of the debates conducted in the seventeenth century

among such forerunners of modern Western thought as Hume, Locke, and Descartes. The difference, of course, is that the contemporary debate often lacks the innovativeness of those debates in their time, as well as their far-reaching political implications.

In order to update and give more depth to the discussion, we must therefore develop and employ “new vocabularies” of knowing and learning, to use an expression coined by Richard Rorty. New vocabularies, in fact, populate the world differently: they not only change existing ideas, they introduce new and alternative truth-values (Rorty, 1989; Contu, 2000). Put differently, we must develop new linguistic and conceptual repertoires about knowledge that free us from the prevailing notions, which depict it as the static result of the thinking of disinterested and autonomous individuals, and which suggest that knowledge can be stored, transmitted, and circulated to other individuals able to assimilate it into some form of mental or material repository.

The main assertion of this book is that a practice-based vocabulary is a promising candidate for such rethinking. The notion of practice has, in fact, an ancient and solid lineage in cultural traditions that have offered views of knowing and learning that are alternative to the prevailing representationalist and idealist tradition. The authors of the papers collected in this book all concern themselves with questions of practice in the context of organizational life, ranging from cooking to roof-laying, from flute-making to bridge-building. As we will discuss below, these several approaches have as many points of difference as they have commonalities. Neither they nor we have made any effort to force-fit this variety into a single practice-in-knowing conceptual box. But as they all take up questions of practice, it is worth beginning, briefly, with an historical review of the intellectual heritage that undergirds this concept.

### **At the Root of Polisemy: A Brief Reminder of the Historical Legacy of the Notion of Practice**

Although a thorough reconstruction of the history of the notion of practice goes well beyond the scope of this introduction, we would point out three of the major cultural roots—or tributaries, had they been watercourses—that support the work of the authors in the present collection: Marx’s work, phenomenology and symbolic interactionism, and Wittgenstein’s legacy

A first tradition is the Marxist notion of practice. Marx was, in fact, one of the first authors seriously to challenge the entrenched and institutionalized neglect of practice in the political philosophy of his day. One enduring legacy of his work is its successful attempt to challenge centuries of

Western rationalist and mentalist traditions and to legitimate “real” activity—what people actually do in their everyday lives—as an object of research and as an explanatory category in social sciences. As Marx stated in *The German Ideology*:

Men, developing their material production and their material intercourse, alter, along with this their real existence, their thinking and the products of their thinking. Life is not determined by consciousness, but consciousness by life. . . . Where speculation ends—in real life—there real, positive science begins: the representation of the practical activity, of the practical process of development of men. (Marx, 1846: 123)

Practice plays a central notion in Marxist epistemology. It is an epistemological principle in the sense that we only know that which becomes the subject of our practice: thought and world are always connected through human activity; they are inseparable. On the one hand, people are always actors and producers; on the other, thinking is only one of the things people do. Even social scientists and philosophers do not spend all their time thinking; they also eat, play music, jog, fight, make love. In Marx’s view, the object of inquiry for philosophers (and what we would today call social scientists) should therefore be *praxis* understood as what persons say, imagine, conceive and produce, *and* think while attempting to carry out these activities.

Practice is both our production of the world and the result of this process. It is always the product of specific historical conditions resulting from previous practice and transformed into present practice. The material process of production involves both the production of goods and the reproduction of society. The important contribution of this tradition is its epistemological and methodological insight that practice is a system of activities in which knowing is not separable from doing, and learning is a social and not merely a cognitive activity. As many of the authors in this book argue in their chapters, and as Frank Blackler once wrote (1993: 870): “social learning is a creative achievement, therefore, which involves a degree of personal investment; it can only be achieved by active participation.”

Marx also introduced the idea that understanding human action requires one to focus on the entire social and historical context of that action—a tenet central to the work of several of the authors working with a practice-based approach, and especially those with a background in cultural and historical activity theory. Only by considering the concrete totality of interconnected activities that engender socially productive activities can one grasp the meaning of human action. Because productive actions are inherently social, moreover, in order to grasp meaning and intelligibility, one must understand the

social and historical context in which they take place. As Marx wrote: “Activity and mind are social in their content as well as in their origins; they are social activity and social mind” (Marx, 1975: 157).

A second notable tradition of thought that provides practice with a solid lineage is phenomenology. According to the phenomenological tradition, in everyday organizational life, such activities as work, learning, innovation, communication, negotiation, conflict over goals and their interpretation, and history are copresent in practice. They are part of human existence of the “human life-world.” At the same time, within this flow of existence, within any practical endeavor, there is no distinction between subject and object; there is no dualism. Heidegger (1962) and the phenomenological school, drawing on Hegel (see Bernstein, 1971) used the term *Dasein* to denote this “being there” or “being-in-the-world” in which subject and object are indistinguishable. Both are concurrently part of a situation, and both exist within a social and historical setting.

Winograd and Flores (1986) elaborate on Heidegger’s argument to provide an illuminating example of the relationship among subject, object, context, and knowledge. Consider a carpenter hammering a nail into a piece of wood. In the carpenter’s practical activity, the hammer does not exist as an object with given properties. It is as much a part of his world as the arm with which he wields it. The hammer belongs to the environment and can be unthinkingly used by the carpenter. The carpenter does not need to “think a hammer” in order to drive in a nail. His or her capacity to act depends upon the familiarity with the act of hammering. His/her use of the practical item “hammer” is its significance to him/her in the setting “hammering” and “carpentry.” When the carpenter is hammering unimpededly, the hammer with its properties does not exist as an entity: in the usable environment, the understanding of situations is prereflexive activity, and the world of objects thus becomes “simply present” (*Vorhanden*). The hammer as such acquires a separate “existence” only when it breaks or is lost: that is, when its unreflective use becomes problematic. For reflexive, investigative, theoretical knowledge to come into play, something previously usable must become unusable. This breakdown only occurs when the carpenter has already understood the hammer in practice. Only when a nonusability situation occurs will the carpenter’s activity of “hammering” take on a problematic form. The traditional Western hierarchical privileging of theoretical, discursive knowledge over practical understanding is hence reversed: knowing in practice predates reflexive theoretical knowledge and makes it possible.

Hammering is a paradigmatic example of prereflexive learning, of comprehension that takes place in situations of involvement in a practice. This theme has been extensively developed by Polanyi (1962) under the rubric of

“tacit and personal knowledge”—two concepts that appear in many of the essays in the present collection (e.g., Strati and Gomez et al.). Polanyi’s position is in fact quite akin to the phenomenological tradition that he only in part embraced. He asks: Does an analytic description of how to keep one’s balance on a bicycle suffice as instruction to someone wanting to learn how to ride a bicycle? And he answers: “[R]ules of art can be useful, but they do not determine the practice of an art; they are maxims, which can serve as a guide to an art only if they can be integrated into the practical knowledge of the art. They cannot replace this knowledge” (Polanyi, 1962: 50). In this, says Polanyi, we “know more than we can tell” (Polanyi, 1962: 4).

The example of hammering is also paradigmatic of the knowledge that arises when breakdown occurs and reflexive activity intervenes. Accidents, for example, are cases of breakdown in everyday life that bring what previously was unproblematic to the surface, as is clearly seen in Gherardi and Nicolini’s essay. In the phenomenological tradition, the concept of practice shows how comprehension in situations where one is “thrown headlong into use” is prereflexive and does not draw distinctions among subject, object, thought, or context; it also shows how reflexive understanding arises at moments of breakdown. Ethnomethodology has used the breaching of rules to show the operation of those rules in producing a “normal” situation. The approach exploits the social, cognitive, and emotional breakdown brought about by rule-breaking events.

Organizations as systems of practices therefore exist in the dimension of “simply usable” tacit knowledge, which becomes the object of reflection when a breakdown occurs. Symbolic interactionism adds a strong social and interactional dimension to this view. Herbert Blumer (1969) posited three core ideas as the basis of this approach: (1) the notion that human beings act toward things on the basis of the meanings that those things have for them; (2) the notion that such meanings arise out of the interaction of the individual with others through language practices, so that language gives people a means by which to negotiate meaning through symbols; (3) the notion that an interpretive process is used by the individual in each instance in which s/he must deal with things in his/her environment. For symbolic interactionists, therefore, every kind of knowledge both represents and embodies (interactional) work and can only be accessed through interaction. Tacit knowledge is not only prereflexive, it is also and above all social, and hence open-ended, provisional, and subject to local negotiations. Accordingly, as suggested by some well-known studies carried out within this tradition (e.g., cf. Becker, 1953), and as reiterated here in the papers by Wenger and Gomez et al., for example, becoming knowledgeable in any field, from computer science to smoking marijuana, requires participation in the interaction and engagement

with the local web of meaning-making processes: that is, becoming a member of the group, community, or local culture that collectively sustains these interpretive processes.

A third tradition contributing to the richness and polisemy of the notion of practice is Wittgenstein's legacy and its insistence on the relation among practice, language, and meaning through the notion of linguistic game (Wittgenstein, 1953). For Wittgenstein, in fact, language is mainly a practical and social endeavor. Linguistic terms arise within a social practice that encompasses meaning construction. Participation in a practice entails taking part in a professional language game, mastering the rules, and being able to use them. "Having" a concept means that one has learned to obey the rules within a given practice. Speech acts are units of language and action; they are part of a practice. They are not merely descriptions, but types of action like any other in a given practice.

Language is not only the expression of social relations; it is also the medium for their creation (Czarniawska-Joerges, 1991). Those who participate in the practice of a linguistic game must share in the "life form" in which that practice is possible: intersubjective consensus is more a matter of shared environment and language than of abstract opinions (Wittgenstein, 1953).

Sharing a "life form" (a praxis) is the prerequisite for the understanding and transmission of so-called propositional knowledge. The latter is the type of knowledge acquired through the practical understanding of an operation. For example, carpenters participate in a professional language game, and they are able to "tell" the procedures that they follow in making a chair. But the (propositional) knowledge that one can acquire in this way is different from the practical understanding of the real operation of "making a chair." The propositional knowledge of how to make a chair, and how to describe the process, is qualitatively different from the procedural knowledge of how to use a saw or a plane, or of when their blades need changing.

As amply illustrated by many of the papers in the present collection, there is knowledge that is transmitted through the senses by virtue of familiarity with previous situations and of refinement of that sensibility. As pointed out by Yanow, knowing how to describe the sound of a flute is part of the practice of knowing how to make a good instrument. Practical understanding is often tacit: not because flute makers do not wish to talk about explicit measures of the feel of the instrument, but because they can talk about the feeling in other ways as they participate in that language game.

In sum, a practice-based vocabulary possesses such potency because it has a long intellectual pedigree. Although not all the scholars who use it today may be wholly aware of this derivation, the notion of practice is imbued with diverse traditions of thought, including those discussed here. These

traditions simultaneously constitute the basis of the richness and the reason for the multiplicity and irreducible variety of the voices that make use of the approach. Together, these voices articulate knowledge in and about organizing as practical accomplishment, rather than as a metaphysical transcendental account of decontextualized reality.

### **Four Practice-Based Ways to Talk About Knowing and Learning**

We have argued at the outset that a practice-based theoretical approach allows us to address the topics of organizational and workplace knowing and learning from a perspective that is different from, and yet complementary to, the still prevailing engineering and economic models utilized in management and organizational studies. As the previous section indicates, and the papers collected in the present volume demonstrate, there is no such thing as a unified practice theory or practice-based approach, only a number of research traditions and scholars connected by a common historical legacy and several theoretical family resemblances. Four of these traditions are represented in this book.

Dvora Yanow and Antonio Strati develop their contributions from within a *cultural interpretive framework*; Wenger and Gomez, Bouty, and Drucker-Godard concentrate on *social learning*, although the former focuses on “community of practice” and adopts a symbolic interactionist perspective, while the latter operate within a “habitus” framework derived from the work of Pierre Bourdieu; Engeström, Puonti, and Seppänen and Blackler, Crump, and McDonald utilize *cultural and historical activity theory*, an account of practice and change that has emerged in the West at the point where Vygotsky’s cultural psychology, the Marxist notion of praxis, and elements of symbolic interactionism intersect. Finally, Law and Sigleton, Suchman, and Gherardi and Nicolini work within the *sociology of translation*, a theoretical sensitivity that in many ways combines the processual, materialist, and antideterminist elements of all the traditions mentioned above with Foucault’s reflections on the pervasiveness of power and Wittgenstein’s notion of meaning making. In the following sections we shall seek to summarize how each of these have contributed to the emergence of a new vocabulary centered on the notion of practice and practice-based knowing and learning.

### ***Understanding Knowing as Culture and Aesthetic Understanding***

Dvora Yanow and Antonio Strati present a first way to talk about practice using terms and notions derived from cultural and, in Strati’s case, aesthetic perspectives.

Describing flute making and institution building, Yanow argues in Chapter 2 for the benefits of an interpretive perspective, both substantively and methodologically used to understand knowing as practice. When an interpretive cultural perspective is employed, in fact, some of the conceptual tools used to understand the notion of culture are translated into the realm of practice thinking; this makes it possible to focus on practices as collective endeavors and it directs attention to actions and interactions, the objects and language used in these social transactions, including the site-specific meanings of various artifacts, to the actors in the situation, as well as to the site-based set of interpretive methods designed to access and analyze these data. The interpretive cultural perspective emphasizes the context-specific, collectively held meanings embedded in practices sustained by and reproduced in all organized human activity. It highlights how mastery depends on social processes both for its existence and for its communication: the practice of flute making is at the same time the medium through which mastery is expressed and communicated, and the outcome of that mastery. The interpretive cultural perspective also shows how artifacts and interactions sustain both meaning and knowing in practice without an intervening process of representation being necessary: flute makers use vague and very abstract expressions such as “the flute doesn’t feel right”; yet these comments are readily understood and they prompt very specific acts to correct that “feel” (cf. Cook and Yanow, 1993).

The reference to the kinesthetic, tacit, and aesthetic dimensions of knowing as practice is developed by Antonio Strati, who in Chapter 3 discusses the aspects of the practice of roof making and unmaking. Strati notes how perceptive-sensorial capacities and aesthetic judgments prove particularly important not only for working on a roof but also for deciding to take up that kind of work, for teaching others how to do it, and for selecting the personnel able to do it. Strati thereby stresses the aesthetic dimension of knowing as practice. In so doing, he gives voice to a growing number of practice-oriented authors for whom sentience is an integral part of their discourse—a feature that sets them apart from the cognitivists, who tend to underplay or ignore this dimension of human intelligence and action, as well as from most organizational scholars, who have extended the “logos over pathos” hierarchical discourse to the realm of social and business organizations (Gagliardi, 1990).

Conceptualizing aesthetic knowledge as the form of competence that persons acquire by activating specific capacities of their perceptive-sensorial faculties and aesthetic judgment brings to the fore the central importance of personal knowledge in the processes of organizational knowing, as well as its corporeality. The socialized, inscribed, trained, habituated, and conditioned sentient human body described in Strati’s chapter (and in others in this volume) becomes a critical locus of connection and of the reproduction

of social order, such that the sensuous and the cultural take central place in the processes that enable social and organizational order to be reproduced and/or disrupted and/or reconstituted. These disciplined bodies are in fact carriers of social order; as Strati notes, they are aesthetically and emotionally doing and redoing organization.

An aesthetic take on practice thus emphasizes knowing as a form of aesthetic experience at once personal and social. By highlighting the importance of the tacit dimension of knowing, Strati's approach allows us to think of practical knowledge not as what has not yet been rendered explicit like a continent ripe for scientific exploration, but as what cannot be spoken because it is not verbal in itself.

### *Understanding Knowing as Community and Habitus*

In Chapter 4, Etienne Wenger develops a now well-established way to talk about practice-based learning and knowing in organizations which uses the notion of "community of practice." Wenger claims that associating the terms "practice" and "community" yields a more tractable characterization of the concept of practice and defines a special type of community characterized by joint enterprise, mutual engagement, and a shared repertoire of actions, styles, artifacts, concepts, discourses, stories, and histories (cf. Wenger, 1998, ch. 2).

For Wenger, communities of practice are the basic building blocks of social learning systems in that they function as the social containers of the competencies that make up such systems. Communities grow from the intersection between competence and personal experience within a context of mutual engagement in a common practice. Competence is historically and socially defined in communities, and knowing is a matter of displaying the socially defined competence sustained by the community. At the same time, however, because we experience knowing on the basis of our own personal stories, the enactment of such knowing is always a matter of negotiation. The interplay between knowing and competence gives all constituents opportunities for learning and innovation.

The community of practice perspective thus emphasizes knowing in practice as joint enterprise and belonging. Although communities of practice should not be romanticized too much, as Wenger stresses, the approach focuses on shared repertoires, communal resources, common language and routines, and shared artifacts and stories. These dimensions support the mutuality among members of the community which constitutes the social fabric of knowing and learning. At the same time, the approach focuses on the developmental process of becoming part of a community of practice. This

perspective, in fact, conceives knowing not so much as a way of understanding the world but as a way of being in the world: competence and identity are inseparably intertwined and depend on recognized participation in a community of practice. Wenger explores forms of belonging to communities of practice that go beyond physical copresence, thereby extending the notion of mutuality to include imagination and alignment as ways to participate in a social learning system.

The approach also emphasizes that the process of becoming a member of a community of practice is a crucial source of learning for both novices and the community. “Legitimate peripheral participation” is a term that refers to the progressive involvement of newcomers in a practice as they acquire growing competence (Lave and Wenger, 1991; Gherardi et al., 1998). The adjective “peripheral” denotes the existence of a route that the new member must follow in order to gain the esteem of the community’s established members. At the same time, the idea of “legitimate participation” emphasizes that as the newcomer passes through the various stages of learning s/he must necessarily connect with others performing actual practices. Since knowledge is integrated and distributed in the life of the community and learning is an act of belonging, learning necessarily requires involvement. Learning cannot take place if participation is not possible: the professional development of members and the development of the practice sustained by the community go hand in hand; their identity and that of the community evolve in parallel.

The focus on social processes as the fabric of knowing and learning is also a central theme in Gomez, Bouty, and Drucker-Godard’s essay (Chapter 5). Studying the practice of French haute cuisine and the chef’s work, the three authors examine this highly valued and highly volatile form of practical knowledge from the notion of “habitus.” The latter was introduced by the French sociologist Pierre Bourdieu as a way of providing an account of practices and practical knowledge that explains both our experience of a world prestructured with respect to our possibilities of thinking and acting, and the active apprehension and engagement with the world of persons and objects that takes place within this prestructured field of practical possibilities. Habitus is defined as “a system of durable, transposable dispositions, structured structures predisposed to function as structuring structures” (Bourdieu, 1990: 53). It is conceived as a set of “principles that generate and organize practice and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or any express mastery of the operations necessary in order to attain them” (ibid.). Social and historical in nature, habitus is deeply inscribed in the body. Moreover, habitus always operates in conjunction with a practical endeavor that it helps define and structure: habitus is only actualized in the context of real and significant

practical circumstances; only then does it sustain the mutual adjustment among practices and coordination among actors, while at the same time allowing personal trajectories to take shape.

The language of habitus addresses practical knowing in terms of bodily predispositions that generate and reproduce specific courses of action associated with specific social positions and structures. Here, too, socialization and habituation assume central importance as ways to become part of a practice. One cannot enter the “magic circle” of haute cuisine by instantaneous decision of the will, but only by a slow learning and initiation process that requires a good amount of “obstinacy,” as one of the informants quoted in the chapter by Gomez et al. put it. Unlike others, this approach to practice is highly sensitive to disparities in the distribution of knowledge brought to bear by habitus, which is in fact a principle that incorporates, enacts, and reproduces hierarchical social positions and unequal power relations, together with the practices that go along with them.

The habitus approach therefore characterizes knowing in practice as an embodied practical sensitivity—a *sense pratique*—learned and remembered by the body as practical dispositions that present us with a world in which it make sense to do some things and not others. This way of knowing is different from a traditional form of computational logic in that it is based not so much on the application of explicit or tacit rules as on responding to a feel: a feel for the game, for example, the game of cooking, a feel for what is appropriate within the existing conditions (will a new dish still be recognized as “haute cuisine”?), and a feel for the social positioning that goes with it.

### ***Understanding Knowing as a Feature of Cultural and Historical Activity Systems***

Chapter 6 by Blackler, Crump, and McDonald and Chapter 7 by Engeström, Puonti, and Seppänen introduce a further way to talk about practice-based forms of learning and knowing, both centered on the conceptual apparatus of cultural and historical activity theory.

Activity theory originates from the work of Vygotsky and emphasizes the historical, mediated, and transformational nature of collaborative endeavors (a brief account of the origins of the approach is outlined in an appendix to Chapter 6). According to this approach, activities are culturally situated and mediated by linguistic and technological artifacts. Activities are always enacted in communities and imply a division of labor among participants; activities provide motives and are oriented toward objects of work that are partly given and partly generated within the activity itself. Because the accomplishment of the object of an activity requires the assemblage of several

simpler actions, the units of analysis of the practice-as-activity approach are complex activity systems. Activity systems comprise a variety of actions with different histories and logics of action associated with them. For this reason, activity systems always entail conflicting aspects and inherent contradictions that make them by definition disturbance-producing systems. As Blackler et al. note, the existence of paradoxes, tensions, and incoherences is inherent in the nature of activity systems and fuels their ongoing transformational drift: within activity systems, both the understanding of the nature of the object of work as well as the activities that go along with it are in constant “expansion.” Such an expansion requires the activity system to learn new ways of accommodating all different composing elements, an effort that is bound to affect the very nature of the object of work and spur new inconsistencies and contradictions, thus triggering a new cycle of transformation. Change, expansion of objects, and learning are fundamental and integral aspects of this approach to practices.

Blackler and his coauthors examine the practices of strategic renewal and technological innovation in a high-tech firm to illustrate how activity theory can be used to interpret knowing simply as an aspect of collaborative endeavors that are social and transformational in character. Thus, the cultural and historical activity theory approach emphasizes in particular that social and historical conditions are both the outcome of and the precondition for social activity. These conditions, however, are in continuous flux, so that practice carries within itself the germ and principles of both its perpetuation and its transformation. The approach also highlights the mediated nature of activity and the central role played by artifacts both material and symbolic in actualizing these conditions and structuring current and future endeavors. Finally, this approach emphasizes more than any other the opportunities for innovation and development of collective competencies inherent in any practice and the fundamental fluidity of activity systems.

This latter aspect is extensively developed by Engeström, Puonti, and Seppänen, whose chapter illustrates the object-oriented and expansive nature of knowing from this same perspective. The account of three emerging practices—white-collar crime investigation, crop rotation in organic farming, and caring for patients with multiple illnesses—shows how a practice-as-activity approach can articulate the recursive relation between practice and its object. This relation becomes especially visible when there is an expansion of either one, as in the cases discussed in the chapter. The expansion of the object of the activity triggers the creation and emergence of a new mediating instrumentality that recursively reconstitutes the activity and its object. This cycle of mutual interaction is an endless process that creates new practices as well as new ways to address them.

The two chapters, informed by a cultural and historical activity theory sensitivity, show how this particular approach enables interpretation of expertise as a collective, heterogeneous, and evolving phenomena, and organizations as distributed, decentered, and emergent systems of practical knowledge. Also stressed is the centrality of mediating artifacts and objects as organizing centers for regimes of practical expertise (see also Knorr-Cetina, 1999). Finally, cultural and historical activity theory stresses the relation between knowing and change, depicting practical knowing as a historically situated accomplishment subject to an irrevocable process of expansive change. The modification or emergence of new objects of work has, in fact, the effect of bringing out the contradictions inherent in any activity system, and therefore require the development of new rules, mediating artifacts, and ways of working that will inevitably modify the object of work in an endless process.

### *Understanding Knowing as Heterogeneous Engineering and “Action Net”*

The final three chapters in the collection—those by Suchman, by Gherardi and Nicolini, and by Law and Singleton—all work within the framework of sociology of translation, also known as actor-network theory.<sup>2</sup> The sociology of translation began as a development of the social studies of science and technology. It can be described as an interpretive sensitivity and a literary genre based on the notion that “the social” is nothing other than a patterned network of heterogeneous materials—not only people but also machines, animals, texts, money, architectures—kept together by active processes of ordering (Law, 1992). Although it has never been codified into a full-fledged theory, the approach unites scholars who find it useful to conceive the world in terms of effects, relationships, and performativity.

Thinking of the world as a performative effect entails acknowledgement that all entities are performed in, by, and through the relationships in which they are involved: organization, stability, and persistence are, hence, the result of an effort, not an intrinsic quality of things (Law, 1999). The order and “nature” of things is therefore always a reversible and uncertain outcome, an effect of operations, maneuvers, and processes that keep things in place. The main challenge for social science is to do empirical research that can explain how the durability of orderings is achieved in practice, how facts become such, how order is performed, how things are put in place and stay that way, and how change comes about—what authors operating within this framework call the tactics of translation of ordering in time and space. Knowing a practice is equated with being able skillfully to participate in and influence the ordering of the world while pursuing one’s own interests; that is to say,

knowing is a different way to describe the capacity to proceed unhampered in whatever we do. One of the characteristics of this approach is that it does not limit its focus to language, discourse, or human interactions, granting instead equal citizenship to a range of disparate and heterogeneous elements (technologies, artifacts, symbols, places) as active players in the processes of ordering—although not necessarily as volitional and intentional “actors” (Brown and Capdevila, 1999). Knowing is therefore another way to describe the successful alignment of human and nonhuman elements (“heterogeneous engineering”) and the human capacity to produce an effect on the world.

This latter aspect is evidenced by Suchman in Chapter 8, which is centered on understanding the engineering practice of bridge building. Suchman gives a detailed description of how the endeavor of building such a large and significant artifact as a bridge implies the complex work of alignment involving not only different professional knowledges, centers of expertise, and technological artifacts but also social and political relations, interests, and conflicting demands by human and nonhuman elements. She emphasizes that bridge building is a process of sociotechnical ordering and heterogeneous engineering that is historically, socially, and geographically (as well as geologically) situated. In this sense, the collective knowing involved in building a bridge cannot be understood as a self-standing body of knowledge; it is instead an irremediably contingent process of performing competence and making oneself accountable, artfully balancing compliance and the endless need for practical subversions in order to get the work done.

Though using the same overall framework, Gherardi and Nicolini (Chapter 9) are instead more interested in the processes through which knowledge is constituted as such; that is, the way in which legitimate knowledgeable practices emerge, are sustained, become durable, and eventually disappear. As they analyze how safety is attained on construction sites, Gherardi and Nicolini describe how the creation, shaping, stabilization, and circulation of safety knowledge—or better, “safety-knowing,” is coterminous with the emergence of an ecology of actions and interests that sustains a particular practical regime of what constitutes a safe site and how to go about making work on construction sites safe. They describe safety-knowing as distributed among several intermediaries (artifacts, discursive practices, and norms) and as sustained by the process of their circulation, exchange, negotiation, distortion, use, and non-use. In this sense, safety-knowing does not reside in any of the nodes of this seamless web; instead it is the emergent effect of the entire heterogeneous “whole.” This network of actions and intermediaries can be considered in many senses to be the “author” of the accomplishment of safety, and its contingent character and composition determine what safety means in practice in that particular part of the world and at that particular time.

The Suchman and Gherardi and Nicolini chapters, then, put forward yet another way to understand knowing in practice, namely as arising from the alignment of a number of heterogeneous materials and interests. From the vantage point of the sociology of translation, knowing in practice is the creation of a complex web of elements in mutual interrelationship and continuous struggle. Knowing is, in this sense, the result of a system of ongoing practices and political processes that are, in effect, two sides of the same coin. One could say that the subject of the knowing is the “action net” identified by these processes. It does not reside in any of its parts, and even less, in any of the representations produced by its different constituencies.

The relation between representation and knowing is the central concern of Law and Singleton in Chapter 10, which concludes the book. Unlike the other authors in this collection, Law and Singleton focus less on the description of a practice than on the practice of description. They examine the trajectories of alcoholic patients with liver disease in the UK health sector and reflect on their finding that different constituencies use different, inconsistent, and mutually interfering ways to map them—with major repercussions on the care given to the patients and its outcomes. Law and Singleton ask themselves, and the readers, what is to be done with this irreducible multiplicity, and they reflect on the relationship between representing and doing, and on the possibilities and limits of the practice of inscribing and representing.

In certain respects, this essay is the most fitting conclusion to the book because it draws attention to the limitation inherent in a practice-based vocabulary *qua* vocabulary. As de Certeau has aptly put it, describing practices is necessarily a form of colonization through description (Certeau, 1984). If a practice is to be captured in discourse, any discourse, it must first be severed from the lived word: science only knows dead objects. Applying the practice-based approach reflexively to itself, Law and Singleton bring us to the limit of a practice-based vocabulary, showing its shortcomings and giving us a sense not only of what it can do for us, but also of what it cannot do. Their chapter leads to what Wittgenstein once described as the point at which “language goes on holiday,” the point at which we must let practice speak for itself (Wittgenstein, 1953; Johannessen, 1996).

### **Elements of a Practice-Based Vocabulary for Knowing and Learning in Organizations**

The above brief overview of the approaches used in this book is an illustration of the abundant insights yielded by the perspectives described into a practice-based understanding of knowing and learning in organizations. It also outlines the similarities and differences among the approaches. On the

one hand, the contributors to the book do not speak with a uniform and homogeneous voice, and it is evident that in organizational studies, as elsewhere, there is no such a thing as a unified practice approach (Schatzki, 2001). On the other hand, this multiplicity is a source of richness and redundancy that defines a complex terrain of partly overlapping, partly diverging discourses marked not only by differences but also by family resemblances and similitude. For example, all the approaches reviewed above believe that such phenomena as knowledge, meaning, human activity, power, language, organizations, and historical and technological transformations take place and are components of the field of practices. At the same time, they make recurrent use of a common set of terms and notions, which together delineate a recognizable practice-based linguistic and theoretical repertoire—the sort of new vocabulary mentioned by Richard Rorty (1989). Without any attempt to silence the extant multivoicedness or reduce the existing multiplicity of views by crafting a single unified theory of practice, in this section we shall seek to describe the overall features of such a vocabulary or repertoire, attempting to capture, within the space available, what distinguishes a practice-based approach to knowing and learning in organizations from other approaches.

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### ***Some Characteristics of a Practice-Based Vocabulary for Knowing in Organizations***

In the first place, one may argue that a distinctive characteristic of a practice-based vocabulary is the presence of verbs often declined in the gerund. This lexical characteristic, which derives from the inherent process-oriented stance of a practice-based approach, conjures up a world that is always in the making, where “doing,” more than “being,” is at the center of attention; they signal the constructive nature of the social and material world and convey an image of knowing as materiality, fabrication, handiwork, the craftsman’s skill, conflict, and power struggle; they denote a world in which “reality” is experienced as solid, stable, and certain matter but in which this condition is an effect, a result, a machination—in short, something that perhaps is but that could have been different. A practice-based vocabulary is, then, a vocabulary made of verbs: *learning, organizing, belonging, understanding, translating, and knowing* are among the terms most recurrent in the essays collected in this book. Several of the most frequently used nouns indicate performativity as well: *activity, alignment, construction, and enactment* are all key terms in practice-based approaches. This is because all practice-oriented approaches focus on what people actually do. Attention is directed toward understanding how and under what conditions action is actually carried out. The object of inquiry becomes the

capacity of humans to perform actions competently, the temporal organization of such actions, and the resources that makes them possible.

A second distinctive feature of a practice-based theoretical repertoire is the predominance of socially related terms. For all the authors in this collection, knowing and mastery are by definition social accomplishments, even when they are attributed to individuals; the adjective “social” points to the localization of learning and knowing not in the mind of the individual but in a social subject, a subject that simultaneously thinks, learns, works, and innovates. Within a practice-based perspective, knowing is always conceived as a social ecology sustained by processes of participation in, enculturation into, and belonging to social patterns like communities, activity systems, and local cultures—all of which are terms that differentiate the approaches represented here from more traditional individual-centered social cognition perspectives. Significantly, however, the social dimension of knowing, which springs from the inherently social nature of practices, goes hand in hand with the use of a range of terms (*habitus*, sense, feeling, touch) that refer to knowledgeable people whose mastery is sensorial and emotional in character. Among the protagonists of this book are Strati’s bricklayers, who feel and fear the roof; Yanow’s flute makers, who share knowledge and build mutual intelligibility by passing to and fro the artifact they are building; as well as Gomez’s chefs, whose competent activity requires learned and sophisticated senses of smell and touch. The sociality evoked by a practice-based linguistic repertoire is therefore very different from the refined, clean, aseptic abstractions predicated by functionalist social scientists. In the world depicted by practice-based terms, people act and interact, but they also look at, listen to, and ignore each other. They have bodies; they touch, smell, taste; they have sentiments and senses; they argue, yell, fear, get nervous, and even die. They are not solely ephemeral social entities (agents); they are living beings who inhabit a world of life that, far from constituting a “problem,” is the object itself of study and representation by this approach.

A third salient aspect of a practice-based vocabulary is the presence of a host of object terms referring to material artifacts as well as to specific historical conditions. The sociality referred to by practice-based approaches is a sociality not only with other human beings but also with artifacts, both material and symbolic. Most of the essays in the book talk about mediated action, but they also recount stories that are social and material in character. Flutes, roofs, pots and pans, crops, diseases, bridges, cement mixers, and buildings—as well as rules, norms, and mapping conventions—all figure prominently as active “characters” in the stories of organizing that constitute the chapters of this book. Unlike in other approaches, here these artifacts do not play a merely background role. On the contrary, they participate actively in

the stories, carry history, embody social relationships, distribute power, and provide points of resistance. Historicity and heterogeneity—two key terms in a practice-based vocabulary—combine to articulate a world where not everything and everyone is the same, where inequalities and power are continuously produced and reproduced as the pattern of what is doable and sayable, of what is possible, of who can or cannot do or say.

Fourth, just as practice-based approaches articulate knowing as social, they also insist on its spatio-temporal localized nature. In articulating the “where” of knowledge, most practice-based approaches refer to its situated nature, the latter being another recurrent term in a practice-based vocabulary. The term “situated” indicates that knowledge and its subjects and objects must be understood as produced together within a temporally, geographically, or relationally situated practice. All practice-based approaches therefore employ a variety of terms that signal not only the locality in time and space of ordering efforts but also their ephemeral, provisional and emergent nature. “Knowing as performance,” as “an occurrence,” as “an event,” are all expressions that belong to a practice-based repertoire.

Finally, practice-based approaches and vocabularies grant citizenship to a host of terms—for instance, *uncertainty*, *conflict*, *incoherence*—that run contrary to the deeply rooted antithesis between order and disorder in Western discourse. As we have seen, for many practice-oriented social scientists, incoherences, inconsistencies, paradoxes, and tensions are all fundamental and ineliminable elements of practices. Breakdowns and “disturbances” are not only observational occasions for the researcher but also reflexive learning and fundamental innovation opportunities for the activity system. The learning trigger is the misalignment produced by the expansion of the object; the innovation arises from the attempt to constitute new actionable trails or extend existing ones into the newly constituted “territory,” to populate the emergent practical space with new forms of symbolic and material instrumentality. Disorder, not order, generates meaning (Atlan, 1979). In practice-based approaches there is no respite to this rhythm. As Suchman says in her chapter, quoting a previous piece by John Law, perhaps there is ordering (or knowing, or acting), but there is certainly no order (or knowledge, or unequivocal action). This is because orders and ordering efforts, knowledges and actions are never complete—they are verbs, not nouns, as we noted above. But there is another more disquieting reason. As Law and Singleton point out in Chapter 10, even when considered as processes and not substances, ordering and knowing efforts do not coexist in an orderly fashion. Instead, they permanently interfere with each other, resist each other, annul each other in a game of partial connections, of order *and* disorder that escapes representation and only offers itself through the art of evoking.

This is also evident in the context of the present collection, which illustrates not only the connections, resemblances, and commonalities among different practice-based approaches but also the significant differences and discrepancies in style and content among them. A divergence of focus is, for example, visible between authors like Strati, Wenger, Yanow, Gomez, and Gherardi and Nicolini, who concentrate on identity, community, and established actionable and structuring principles that are somehow passed down from generation to generation, and others, for instance the authors working within the cultural and historical activity theory tradition, who by contrast emphasize the outward-looking transformational nature of collaboration. While for the former change is a “variation” stemming from unexpected events in the reproduction process, for the latter change is constitutive of practice itself. While the former authors focus on learning as enculturation and as the transmission of a legacy and a shared repertoire that is somehow given, the latter emphasize that learning always results from the mutual expansion of the object of work and the array of mastery, tools, and relations that goes with it. The former emphasize the power of tradition; the latter stress expansion, creativity, tension and unease.

A different fracture line between practice-based approaches is generated by their differing emphases on mutuality, collaboration, and sharedness, on the one hand, and power inequalities, silencing, and hegemony on the other. Power- and hegemony-related terms—such as conflict, resistance, voice—are not equally distributed among the chapters. They figure most prominently in the essays rooted in a poststructuralist sensibility, namely those based on the notion of “habitus” (Gomez et al.) and the sociology of translation (Suchman, Gherardi and Nicolini, Law and Singleton). They are less prominent in the work of more phenomenologically oriented authors like Strati, Wenger, and Yanow. For the former authors, practices organize and reproduce the distribution of power, knowledge, and the inequalities that go with them. Distributing knowing is not a voluntaristic act but rather the result of the open or tacit collision and maneuvering of divergent interests. As a result, while some of the terms used in the practice-based vocabularies are clearly oriented toward emancipation and critique, others are more attuned to a terminology of management and control.

A final difference that divides the approaches used in the book along yet another dimension is their differing focus on bounded social units (community, system) versus less defined, more contingent sociotechnical arrangements (action net, culture, alignment). While some of the essays use terms that suggest partial closure (e.g., Wenger’s discussion of boundaries, Blackler et al.’s discussion of networks of activity systems and communication among them), others use terms that evoke a more diffuse bonded-ness among the

elements included in a practice, so that it can be said that the former conceive the community or the system as performing a practice, while for latter the opposite is the case: practice performs the community or system-ness.

In sum, a practice-based vocabulary opens up a space of discursivity that enables us to think and talk about knowing, learning, and organizing in novel, broader, and thicker terms. This practice-based theoretical vocabulary is bound to remain a multi-voiced, partially aligned and partially connected repertoire, more than being a coherent unified theory. Nevertheless, it offers a palette that colors knowing in organizations as a phenomenon that is social, processual, and materially and historically situated.

### Ending

As the above sections illustrate, practice thinking is by no means new, and in many ways it stands in the background of a number of the major developments in contemporary social theory. The issue is therefore this: Why a renewed interest in these themes now? Why bring practice back into the center of debate?

As we noted at the outset, the answer lies in the growing centrality of knowledge-related issues in contemporary organizations and society, and in the related inadequacy of many of the existing ways to understand these phenomena. On the one hand, this renewed attention is an effect of the emergence and hegemony of the discourse according to which modern society is becoming a “knowledge society.” One of the corollaries of this discourse is that to the extent that society increasingly relies on expert knowledge, there is a pressing need to deepen understanding of the organizational conditions and processes that can sustain and foster its creation, circulation, (unequal) distribution, and reproduction. On the other hand, the disappointing results of most knowledge management tools and technologies expose the shortcomings of the traditional cognitive and economic assumptions upon which those tools are built. As Richard McDermott aptly put it, traditional approaches and their IT instantiations can “inspire but not deliver knowledge management” (McDermott, 1999) because they fail to recognize the inherent social, processual, and historical nature of knowledge processes. Because of these failings, the limitation of the traditional approaches and their technological and managerial embodiment cannot be resolved by devising more sophisticated IT systems or new management intervention techniques. On the contrary, what is required is recognition that both knowing and knowledge are first and foremost effects of social practices, and that it is toward practices and a practice-based approach that we need to turn to advance our understanding of these processes.

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Accordingly, the main aim of this introduction has been to make a case for the adoption of a practice-based approach as articulated by the different contributions to this book. We started by discussing the need to find a way to gain understanding of knowing in organizations that can stand as an alternative to the intellectualist tradition that views knowledge as a mental content, a quasi-substance, or an asset, and learning as a form of accumulation by individual or superindividual entities. After a brief historical excursus on the legacy of the notion of practice, we then articulated four of these ways as set out by the chapters in this collection, showing that the authors in this book conceive knowing in practice as culture and aesthetic sense, as community and habitus, as activity, and as heterogeneous engineering. Although they describe activities as diverse as flute making, roofing, cooking, bridge building, crime investigation, technological innovation, crop rotation, caring for the ill, creating a safe work site, and mapping disease trajectories, the authors use an overlapping repertoire of terms and figures of speech that broadly outline a practice-based vocabulary of knowing in practice. This vocabulary depicts knowing in organizations as social, processual, materially and historically mediated, emergent, situated, and always opened and temporary in character.

Our main claim is that a practice-based approach is a promising way to address the issues of knowing and learning in organizations in such a way that the richness and depth of the phenomenon is given full consideration. As demonstrated by the contributions to this book, far from being the locus of mechanical repetition and mindlessness, practice is instead a key to the comprehension of knowledge-related phenomena. It is in practice, in fact, that knowledge comes to life, stays alive, and fades away. It is in practice that institutionalized, historically determined, and codified expertise acquires sense and becomes both a resource and a constraint for action. At the same time, it is in practice that such knowledge is enacted and reproduced (together with the power relations that it carries) or is transgressed, translated, and betrayed, generating in the process new institutions and patterns of order.

Because it takes us close to the point at which action is generated, a practice-based sensibility makes it possible to observe knowing as an intimate feature of daily organizational life, the locale in which traditional dualisms lose their meaning and dissolve. In the “here and now” of real time practices, knowing and doing are difficult to conceive as separate; the knowing subject and the known objects cannot be treated in isolation and opposition; repetition and innovation, the given and the emergent coexist and presuppose each other; the body and the material dimension of our existence cannot be excluded from the processes of mind, because the inscribed, trained, and institutionalized body (along with its artifacts) carries knowledge just as does the inscribed, trained, and institutionalized mind. Finally, in real time practices,

knowing and knowledge, process and institution are not opposed but coexist and presuppose each other: competent performance always presupposes an institutionalized and constraining context of action; but what this context is and to what extent it is perceived as an “external” persuasive force depends on how it is represented, how it is translated in time and space, on what patterns of interest it can mobilize in its support, and above all on how it is appropriated and put to work in practice.

A practice-based approach offers, in this way, a radical alternative for the study of knowing and learning in organizations because it offers both a new ontology and a new epistemology. The ontology envisaged by a practice-based approach and vocabulary is relational, constructive, heterogeneous, and situated. From a practice perspective, the world appears to be relationally constituted, a seamless web of heterogeneous elements kept together and perpetuated by active processes of ordering and sense making. Practices—including discursive practices—are a *bricolage* of material, mental, social, and cultural resources. Not only are people active *bricoleurs*, but the world is not docile or passive. To know is to keep all these elements in alignment, given that order is not given but is always an emergent process.

Practice thinking also connotes a world in which activities and knowing always have a specific “where” and “when”: they are always “situated.” The latter adjective communicates the idea that competent action always happens within a materially, historically, and socioeconomically defined horizon, a “context” that far from being pre-given, emerges as the result of the conditions put in place by the practices themselves. The adjective “situated” also denotes that, from a practice-based perspective, knowing as well as knowledges and the world are accomplishments, transient effects, temporary alignments that bear within themselves the seeds of their demise. The world of practices is a world in constant flux in which persistence and change coexist because they are not opposed to each other (Bauman, 1999). Stability is not in fact a static ontic attribute but an outcome of work. Obtaining the same result in our shifting world, achieving stability, creating and sustaining an institution, keeping an organization going require effort. The world is as it is, but it could have been different and can be different: change is an option.

A practice-based approach and vocabulary thus resonates with a sensitivity to what is local, what is temporary, what is partially connected, what is changing. As we have said, practice talking reiterates that beyond grand constructions like discourses, paradigms, or logics there is a daily reality of local tactics, pockets of resistance, dialects, collusions, contradictions. A practice-based approach emphasizes that tradition, institution, and culture—like knowledge and organizations—are verbs, not nouns. Perpetuating them requires work, tricks and skills, suffering—all of which are phenomena that should become the object of social science.

This processual, relational, constructive, and situated ontology involves a specific epistemic sensitivity and a set of related methodological preferences that allows <<missing word?>> to remain authentic to the approach. A practice-based approach directs the researcher's attention to what people do and say, to the world of life made of the details and events that constitute the texture of everyday living and organizing. Here the legacies that converge in practice thinking speak with one voice: everyday life is not something that we need to transcend in order to produce good science. On the contrary, the study of everyday practices should constitute a major concern for social scientists: "The basic domain of study of the social sciences [is] social practices ordered across space and time" (Giddens, 1984: 2).

In order to follow the rugged contours of practices and knowing in practice, their study should adopt some version of the methodological principle stated by Hughes (1971) as "follow the actors." At the same time, given the "institutionalized" and often embodied and encultured form in which we encounter and experience practices, comprehending them requires us to focus on instances of practice-making or practice-changing. In other words, practice is better observed when some "breakdown" occurs in an entrenched practice or when some substantial change requires major realignments of the extant configuration of practice.

In sum, we believe that the ontology and epistemology, as well as the practice-based vocabulary, provided by the contributions to this book constitute a promising way to understand knowing, one that comes closer to our everyday experience and that helps us enrich our comprehension of the organizing process. Not only does "practice" assist us in thematizing the richness and importance of what is tacit, what is taken for granted, what is familiar, but it is also a more agile tool with which to understand complexity in general, and the complexities of the modern organizational world in particular (Law and Mol, 2002). Although practice requires attention to less grand things, its modesty becomes a potentially winning factor in approaching big and often seemingly intractable issues. Because practices do not respect boundaries, because they connect things, people, and events that are distant and only partially congruent, because they allow the coexistence of old and new, because they are able to deal with change and disorder while explaining persistence and order, they constitute a highly promising candidate for deepening our understanding of the organizational world in postindustrial society.

## Notes

1. Of the authors who contributed to the special issue of *Organization* only Alessia Contu and Hugh Wilmott are not represented in this volume. An expanded version of their original piece will in fact appear elsewhere (cf. Contu and Willmott, forthcoming).

2. A good introduction to the original version of the sociology of translation can be found in Law (1992). The paper includes an extensive reference list of most predated ANT. John Law also maintains a very complete and updated online bibliography of ANT works. The reference list can be found at: [www.comp.lancs.ac.uk/sociology/antres.html](http://www.comp.lancs.ac.uk/sociology/antres.html).

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