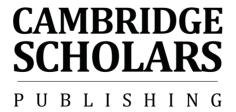# Shedding New Lights on Organisational Learning, Knowledge and Capabilities

Shedding New Lights on Organisational Learning, Knowledge and Capabilities

Edited by

Joaquín Alegre, Ricardo Chiva, Anabel Fernández-Mesa and José Luis Ferreras-Méndez

**CAMBRIDGE
SCHOLARS**

P U B L I S H I N G

CONTENTS

Part 3: Absorptive Capacity and Ambidexterity

CONTRIBUTORS

Hammady Ahmed Dine Rabeh University of Murcia, Murcia, Spain

Joaquín Alegre Vidal Department of Management "Juan José Renau Piqueras", University of Valencia, Valencia, Spain

Francisco Balbastre Department of Management "Juan José Renau Piqueras", University of Valencia, Valencia, Spain

Alejandro Campos University of Guadalajara, Mexico

Ricardo Chiva Gómez Department of Business Administration and Marketing, Universitat Jaume I, Castellón, Spain

Rani J. Dang University Of Nice Sophia Antipolis, Cnrs - Gredeg, France, University of Gothenburg, Iie, Sweden

Mirta Díaz Universidad Pablo de Olavide, Sevilla, Spain

Anabel Fernández-Mesa CSIC (UPV- Universitat Politècnica de València)
Department of Management "Juan José Renau Piqueras", University of Valencia, Valencia, Spain

José Luis Ferreras-Méndez Department of Management "Juan José Renau Piqueras", University of Valencia, Valencia, Spain

Christian Garaus Institute of Human Resource and Change Management, Johannes Kepler University Linz, Linz, Austria

Margaret Gorman Northeastern University, Boston, United States

Patricia Greene Babson college, Wellesley, United States

Silvia Gherardi Department of Sociology and Social Research, Research Unit on Communication, Organizational Learning and Aesthetics. Trento. University of Trento, Italy

Jacob Guinot Reinders	Department of Business Administration and Marketing, Universitat Jaume I, Castellón, Spain
Wolfgang H. Güttel	Institute of Human Resource and Change Management, Johannes Kepler University Linz, Linz, Austria
Nina Katrin Hansen	Hamburg University, Hamburg, Germany
Esther Hormiga	University of barcelona, Barcelona, Spain
Daniel Jimenéz Jimenéz	University of Murcia, Murcia, Spain
Stefan Konlechner	Institute of Human Resource and Change Management, Johannes Kepler University Linz, Linz, Austria
Hubert Lackner	Institute of Human Resource and Change Management, Johannes Kepler University Linz, Linz, Austria
Tuija Lämsä	Oulu Business School, University of Oulu , Finlandia
Christian Longhi	University of Nice Sophia Antipolis, Cnrs- Gredeg, France
Francisco Fermín Mallén Broch	Department of Business Administration and Marketing, Universitat Jaume I, Castellón, Spain
Micaela Martínez Costa	University of Murcia, Murcia, Spain
Maria D. Moreno-Luzón	Department of Management "Juan José Renau Piqueras", University of Valencia, Valencia, Spain
Barbara Müller	Institute of Human Resource and Change Management, Johannes Kepler University Linz, Linz, Austria
Colin Otto	Vu university amsterdam, faculty of economics and business administration, Kin research group, Amsterdam, The Netherlands
Susana Pasamar	Universidad Pablo de Olavide, Sevilla, Spain
Karine Roux	University of Metz, France
Nabil Sultan	Liverpool Hope University, Liverpool, United Kingdom
Damien Talbot	University Of Bordeaux, Cnrs - Gretha,

France
Catherine Thomas   University of Nice Sophia Antipolis,
                             Cnrs- Gredeg, France
Anita E. Tobiassen   Oslo and Akershus University College
                             of Applied Sciences, Oslo, Norway
Ramón Valle   Universidad Pablo de Olavide, Sevilla,
                             Spain
Bart van den Hooff   Vu University Amsterdam, Faculty Of
                             Economics And Business
                             Administration, Kin Research Group,
                             Amsterdam, The Netherlands
Pål-Vemund Vermedal   Gjensidige Forsikring Asa, Norway
Dagmara Weckowska   SPRU – Science and Technology Policy
                             Research Unit & Business and
                             Management Department, University of
                             Sussex, Brighton, United Kingdom

INTRODUCTION

The International Conference on Organisational Learning, Knowledge and Capabilities – OLKC – took place in Valencia in April 2012, hosted by the University of Valencia.

The conference theme was "Shedding New Lights on Organisational Learning, Knowledge and Capabilities", which invited exploration of new perspectives to analyse and understand organisational learning, knowledge and capabilities. A number of crucial competitive issues such as innovation, design, marketing or quality depend on the outcomes of organisational learning, knowledge and capabilities. The antecedents of organisational learning and knowledge, organisational learning processes, the evolution of organisational capabilities, the process of unlearning, and the implications for organisational change were all subjects calling for further research. Current hot topics such as ambidexterity, dynamic capabilities, adaptive and generative learning, mindfulness, or complexity theories offered new lenses through which to expand the scope of organisational and management learning, while the acclaimed Mediterranean light of Valencia provided a new context in which to move forward the organisational learning and knowledge field.

One hundred and thirty interesting papers were presented at the conference in several parallel sessions on organisational learning, knowledge management, and capabilities. This book contains a selection of some of the best and most stimulating papers from the conference. Selecting the papers and organising the review process was a challenge requiring a great deal of work. However, 15 papers were finally selected: four on organisational learning, six on organisational knowledge, and five on capabilities.

The four papers included in the first section, organisational learning, shed new light on this topic. Three of them take the organisational learning practice-based perspective to further understanding of the difference between prescribed work and real work (Silvia Gherardi), and to comprehend the social processes that underline effective changes in organisational practices (Dagmara Weckowska), proposing that

management's strategic practices can shape the learning trajectories of organisational communities of practice. The third, by Tuija Lämsä, argues that knowledge should be examined at its source, that is, the activities of the individual and communities of practice; she examines the flow of knowledge within and among communities of practice, and analyses how individuals make use of and share knowledge. The final paper in this section, by Fermín Mallén-Broch, Ricardo Chiva-Gómez, Joaquín Alegre-Vidal and Jacob Guinot-Reinders, underscores the importance of organic structures. These authors analyse the positive effects of organic structures on organisational learning and organisational performance.

The six papers in the second section deal with a range of topics related to knowledge within organisations. Margaret Gorman and Lyndsay Welsh Chamblin analyse how a company transforms itself, focusing on the way leaders foster knowledge creation capabilities. Change, innovation and knowledge are also explored by Rani J. Dang, Catherine Thomas, Christian Longhi and Karine Roux, in this case taking into account territorial dynamics. In a similar vein, Anita E. Tobiassen and Pål-Vemund Vermedal analyse how an integration unit may contribute to knowledge transfer between geographically dispersed units with extensive decision rights.

Colin Otto and Bart van den Hooff focus on the factors affecting knowledge hoarding, rather than sharing, which provide deeper insights for managing the process of turning individual knowledge into collective knowledge. Similarly, information overload is described in the paper by Nabil Sultan, who explores the innovation phenomenon of cloud computing and Web 2.0 and specifically examines their impact on organisational knowledge.

Finally, Alejandro Campos, Esther Hormiga, Maria D. Moreno-Luzón and Patricia Greene establish the state of the art of knowledge indicators in the field of entrepreneurship, particularly at the individual level, through a systematic literature review. This is a highly interesting attempt to bridge the gap between the knowledge research stream and the academic field of entrepreneurship.

In the third section, five papers explore capabilities, three of them focusing on absorptive capacities, and two, on ambidexterity. Hammady Ahmed Dine Rabeh, Daniel Jimenéz Jimenéz and Micaela Martínez Costa present an analysis of the relationships between absorptive capacity and innovation, concluding, among other things, that there is no significant relationship between old knowledge and exploration of new alternatives,

and that absorptive capacity is a determinant factor when companies seek external sourcing. Barbara Müller and Christian Garaus invite us to rethink the concept of absorptive capacity by linking it with organisational memory. José Luis Ferreras-Méndez, Francisco Balbastre and Anabel Fernández-Mesa take a similar line in relating absorptive capacity to total quality management.

Hubert Lackner, Wolfgang H. Güttel, Stefan Konlechner, Christian Garaus, Nina Katrin Hansen and Barbara Müller present a dynamic model of ambidexterity, analysing the link between exploratory and exploitative learning processes. They explain how rising organisational complexity leads to an increase in causal ambiguity of learning. Finally, Susana Pasamar, Mirta Díaz and Ramón Valle provide an inspiring state of the art on the connections between the literatures on intellectual capital, human resource management and ambidextrous learning. On the basis of this literature review, the authors highlight some of the effects that intellectual capital and human resource management have on ambidextrous learning.

PART 1:

ORGANISATIONAL LEARNING

ARE WORKING PRACTICES THE PLACE WHERE ORGANISATION STUDIES AND WORKPLACE LEARNING CROSS?

SILVIA GHERARDI[*]
UNIVERSITY OF TRENTO

Introduction

What do people do when they work? When they work is that all they do? How does work differ from non-work? The more traditional sociologists of work have preferred to consider it a macro social phenomenon – like employment – leaving micro analysis to other disciplines or to other sociological traditions. This is the "missing what" (Garfinkel and Wieder 1992: 203) that escapes traditional studies on work. And it is this perspective that has been resumed by the practice-based studies that continue the ethnomethodological tradition, and take up Barley and Kunda's (2001) invitation to "bring work back in" (organisation studies). The study of situated working practices also responds to a need for better understanding of the difference between prescribed work and real work (Licoppe 2008) – a problem long present in European sociology of work.

To understand this latter perspective, consider the phenomenological definition provided by Alfred Schütz (1962, p. 212), which treats work from another point of view: "Working, then, is action in the outer world, based upon a project and characterized by the intension to bring about the projected state of affairs by bodily movements". This definition places

[*] Correspondence concerning this article should be addressed to Silvia Gherardi, Department of Sociology and Social Research, Research Unit on Communication, Organizational Learning and Aesthetics. Via Verdi 26, 38122 Trento. University of Trento, Italy. [e-mail:silvia.gherardi@soc.unitn.it].

particular emphasis on work as an activity directed towards the world, which is intended to accomplish a project, and above all which involves the human body and sensible knowledge.

From this perspective, working is a being-in-the-world tied to the accomplishment of a project through physical activities that are situated in time and space. Defining work as situated activity means focusing the sociological analysis of work on working practices as modes of action and knowledge emerging in situ from the dynamics of interactions (Gherardi 2006). This definition is rooted theoretically in social phenomenology, ethnomethodology, and symbolic interactionism.

What does the concept of practice bring to the study of work as situated activity? Why is knowledge in this case qualified as practice? Around these concepts the paradigm of situated action has developed, which subtends the study of knowledge comprised in practices and on which practice-based studies are grounded. Since the 1990s (together with other studies on distributed knowledge, cultural cognitive psychology, activity theory, workplace studies and situated learning), it has given rise to a new strand of social studies on work that fall under the heading of "practice-based studies" or "studies of knowing in practice".

At the basis of this renewed interest in work as a situated activity, two phenomena have contributed to redefining the nature of work, and have consequently challenged the analytical categories with which it is analysed:

  1. The increased knowledge content that characterizes work in "technologically dense" environments (Bruni 2005) makes working and knowing equivalent.

  2. The spread of information and communication technologies (computer, internet, cell phones, to mention only the most common), which has redesigned workplaces, as well as the very meaning of "workplace" as a spatial and temporal locus marked by the co-presence of different human actors in interaction (Llewellyn and Hindmarsh 2010).

Emerging today is a perspective of study founded on working practices as an analytical and interpretative alternative to the traditional approach, because study of work as a knowledge-based activity is necessary to gain better understanding of technological practices where interaction takes place both in co-presence and at a distance, where the reliability of technological systems is vital, and where communication and responsibility

are crucial for the support in real time of the capacity to think and act collectively and cooperatively.

Practice-based studies can make a significant contribution to link the analysis of working, learning and organising, because they are able to:

- contextualize organising within a circumscribed empirical context: a practice or a field of practices;

- define them as a collective practical accomplishment that connects together bits and pieces of knowledge relevant to the on-going situation;

- analyse the activities that contribute to the stabilization and performativity of organising.

The following sections will develop a methodological framework for analysing practices as loci of knowing, working, and organising.

Three salient features of work practices

To convey a preliminary idea of the theoretical and methodological framework in which working practices are analysed as knowing-in-practice, we may say that knowledge can be seen and analysed as an activity, rather than as an object (a body of knowledge), and that it can therefore also be studied as a situated activity. In other words, knowledge emerges from the context of its production and is anchored by (and in) material supports in that context. We may also say that knowing is both an individual and a collective activity; that it is an activity situated in working practices; and that, therefore, practical knowledge is contextual as opposed to being decontextualized and theoretical.

A working practice is a collective activity undertaken in a particular place and at a particular time. It therefore assumes all the variability connected with the context that it is bounded by and makes it possible. It thus expresses a contextual rationality: that is, a form of action and practical reasoning applied to the work at hand, interactions with others, the setting, and all the resources present in it. The jobs of a nurse, a lawyer, or a motorcycle courier consist of a set of working practices that are constantly repeated and adapted to the mutable circumstances in which they are performed. It is this set of working practices that makes an occupation or a profession. Although these practices are constitutive of work and organising, how they are executed depends on the specific situation.

Working practices can therefore be viewed as units of analysis of work. Partially already given and partially emergent, they are ways to order the work flow, to segment it into subsets of coherent and interdependent activities, and to codify it in recognizable, recognized, and socially sustained patterns. For instance, handovers from one shift to the next, meeting the quota, or preparing a patient for anaesthesia are practices which, in the respective work settings, communicate "what one is doing" to co-workers, and also have meaning for those who do not belong to the community of nurses, production workers, or doctors. As *modes of ordering*, work practices create encoded situations comprising programmes of action (in situation X, do Y, Z…), but they are not binding on how that action is to be performed. Handovers from one shift to the next take place in diverse locations and situations and with varying contents, yet they are always recognized as "handover practice".

A distinctive feature of work practices, therefore, is not their internal variability, but rather their repetition. A practice is such precisely because it is practised, habitual, taught and learned as an activity that constitutes the job and requires expertise. It differs from an emergency, that is, a situation in which the usual operational parameters are altered (for instance, a sudden shortage of personnel or an unexpected inflow of patients) or from an unforeseen event (a flood in an operating theatre). Practices contain elements of habit, but they are not habits; they contain elements of action, but they are not actions. If the building in which we are working catches fire, its evacuation is an action for us, but a practice for the fire brigade.

The repetition (or *recursiveness*) distinctive of working practices is connected on the one hand with the development of skills and, on the other, with change as re-specification for the practice's adaptation to contingencies or refinement. The two aspects are linked insofar as the constant reproduction of an activity generates, within the community of its practitioners, dynamics for the constant improvement (or disuse), adaptation, or change in a practice as a response to altered conditions. Knowing-how is refined by being practised, just as excellence in knowing-how is a symbolic element that motivates, rewards, and celebrates the doing and the community of practitioners.

The third distinctive feature of practices (besides their nature as modes of ordering and their recursiveness) is their *reproduction of society*. Francis Bacon wrote in the seventeenth century that the persistence of society is just as problematic as its change. Four hundred years later, social scientists are still more interested in change than in persistence, in production more

than reproduction. Yet a focus on practices entails the problem of society's competent reproduction. Tied to the recursiveness of practices is their stabilization by repetition, and therefore the iteration of the relations among the elements that make up the practice. But what motivates the reproduction of the same relations? According to an evolutionist explanation, only the more efficient practices, those that work better than others, survive. But this explanation fails to consider all the elements tied to tradition or to the emotional and symbolic dimension. A neo-institutional explanation does not deny that technical superiority is a reason for the diffusion and reproduction of practices, but it emphasizes the normative dimension and the process by which the community's work practices and how they are practised become institutionalized. In the communities of nurses, production workers, doctors, or express delivery couriers, certain practices are considered "the correct way to do things" because they are sustained by a set of values and by a constant debate on the ethical and aesthetic dimension of the occupation or profession. The effects of this debate are apparent in the negotiated order, rules, deontological code, and the legislation. Agreement on practices does not necessarily mean their endorsement: indeed, almost all communities have conflicting schools of thought or visions of the world about which practice is more correct, more elegant, or more efficacious. This internal debate augments the dynamism of the practice amid its recursiveness. It is the endogenous dynamic of change in the practice while it is being practised.

Knowing and practising

Having described the three salient features of work practices, I now want to stress how practices, as the unit of analysis of working, knowing and organising, can simultaneously be studied as:

- *Containers* of activities and competences, situational domains in which collective abilities are created, transmitted, preserved or changed. The focus in this case is on the activities that take place in the context of a practice, and how a common orientation is maintained among the participants during the performance of such activities.

- *Processes*, which follow a trajectory of becoming as they unfold over time, mobilize resources, and are pragmatically oriented. Emergent practices and cooperation in action are consequently the focus of the study.

- *Results* of stabilization through anchorage in the material world and institutionalization as the infusion of values and their upholding by

limitation (norms, laws, codes etc.). Studied in this case are the normative system and the prescriptive relay as the outcome of, and precondition for, constant repetition of the practice "for another first time".

A researcher, like anyone else, may want to know a certain practice, but this does not mean that s/he is able to practise it. Knowing a practice in order to be a practitioner or a professional is different. In this case, the person is said to know that practice when s/he is able to reproduce it and knows how to do so autonomously, having acquired the necessary competence. I want to emphasize the distinction between knowing a practice and knowing-in-practice in order to illustrate three different ways of conceiving the relationship between knowing and practicing.

The literature refers to three types of relation between practices and practical knowledge (Gherardi, 2006):

• A *containment* relation, in the sense that practical knowledge is exercised within situated practices. In this definition, practices are objective entities (in that they have been objectified) of which their practitioners already have knowledge (that is, they re-know them as practices), and which contain items of knowledge anchored in the material world and in the normative and aesthetic system that has culturally processed them

• A *reciprocal constitution* relation, in the sense that knowing and practising are not two distinct and detached phenomena; on the contrary, they interact with each other and produce each other.

• An *equivalence* relation: practising is knowing in practice, whether or not the subject is aware of it. Acting as a competent practitioner is synonymous with knowing how to connect successfully with the field of practices thus activated. The equivalence between knowing and practising is established when priority is denied to the knowledge that pre-exists its application, so that something already existing is not performed; rather, the action creates and expresses the knowledge formed in and through that same action.

I adhere to the third position because it enables me to propose a more sophisticated theory of practices seen from the point of view of the community that practises and therefore engenders them, and of knowledge as created and recreated competence. More recently, practices have been termed "sites of knowing" (Nicolini 2010) in order to underline the non-distinction between knowing and practising.

With this specification in mind, I am thus able to specify the underlying methodological framework more clearly.

A methodological framework

A metaphor that aptly illustrates the way in which a practice emerges and is socially and materially sustained is that of climbing, as described by Hennion (2007:100-1):

> "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 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/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 a practice to be described while it is being practised. Work, therefore, is a knowing-how in a situation, a knowing how "to work together" that weaves relations among people, objects, languages, technologies, institutions, and rules. All these "handholds" are found in the field of action. They are partly given, partly to be found, and partly lacking, and they must be assembled into a meaningful network that holds them together and directs them towards a pragmatic goal. This image recalls the activity of bricolage more than that of rational planning. We have in fact used concepts like articulation work, relational work, arbitrage, knotworking, and alignment to convey the idea that the resources for action (material, interactive, communicative or normative) must be activated and interrelated in order to

maintain a shared orientation. Before illustrating what these handholds and resources are, we introduce a metaphor for the relation between resources and practices by quoting a conversation between Marco Polo and Kublai Khan from Italo Calvino's book, *Invisible Cities*, (1993, 83):

> Marco Polo describes a bridge, stone by stone. "But which is the stone that supports the bridge?" Kublai Khan asks. "The bridge is not supported by one stone or another," Marco answers, "but by the line of the arch that they form." Kublai Khan remains silent, reflecting. Then he adds: "Why do you speak to me of the stones? It is the arch that matters to me." Polo answers: "Without stones there is no arch."

Having talked about the arch, we may now consider the stones. In our case, the stones represent the handholds discovered as the practice unfolds and is skilfully activated to become a resource for accomplishment of an activity. I want to focus on specific handholds: the body – and with it sensible knowledge – technology, discursive practices, rules, and institutions.

The body has received particular attention precisely because it has been taken for granted – if not systematically erased – by the classic sociology of work and organisations, which refers to a generic labour force without corporality or gender. The feminist critique has fiercely attacked this position. It claims that the labour force consists of men and women who bring their differences to work; it denounces the normative model of work as constructed on the male worker and as sustaining a normative model of masculinity; but above all it maintains that knowledge cannot be produced without starting from the body, and that different bodies have different experiences (and therefore constructions) of the world. We know through our bodies, and what lies outside us is first mediated by the body and its sensations. Sensible (aesthetic) knowledge is what is learned through the five senses and the aesthetic judgement passed on it. It is largely tacit, but social, knowledge. In many workplaces, it is the senses and the collective refinement of the sensory abilities that measure performance, just as they symbolize the competence expressed as "having an eye, nose or ear" for something, or having a light touch. Contrary to the Cartesian separation between mind and body, the study of practices valorises the intimate connection between mind and body and the knowledge incorporated in bodily schemes, physical abilities, and the collective development of a "professional vision" made up of experience and its codification.

Experience is not individual and unique; rather, it is a process that is both individual and collective. This conception of experience has been put forward by Teresa de Lauretis (1984, 159) as:

"The process by which subjectivity is constructed. Through that process one place oneself or is placed in social reality, and so perceives and comprehends as subjective those relations – material, economic, and interpersonal – which are in fact social and historical. The process is continuous and daily renewed. For each person, therefore, subjectivity is on-going construction, not a fixed point of departure or arrival from which one then interacts with the world. On the contrary, it is the effect of that interaction – which I call experience; and thus is produced not by external ideas, values, or material causes, but by one's personal, subjective, engagement in the practices, discourses and institutions that lend value, meaning, value, and affect to the events of the world."

This process is also collective. It is identity work and the sharing of experience in practices. It is the doing-in-situation which produces a collective identity and consolidates the practical knowledge transmitted to the novice (through co-piloting and scaffolding), through stories that "do community", and through the rules that incorporate an experience and make it available after the event. When learning from experience is considered, it should be borne in mind that experiences leave traces of knowledge that become embedded and available beyond the individual occurrence. Objects embody past experiences. Script is the simplest technology with which to fix the past and update it to the present. The memory does not rely solely on the mental abilities; rather, humans utilize objects to remind them of things.

One of the most important contributions of the practice-based approach is that it directs attention to the socio-material domain. The material world lives with us, around us, and through us. It is neither inert nor passive. When we say that the material world interpellates us, we refer to our interactions with objects: a notice tells us what we must or must not do; a machine alarm tells us that we must not touch it; a flashing light tells us that something is wrong and that the machine needs fixing; and so on. Tools anchor activities because they enable us to do things that we otherwise would not be able to do; technologies are extensions (prostheses) of our bodily abilities, and they increasingly incorporate knowledge and intelligence. Technologically dense work settings demonstrate that knowing-how is distributed between humans and non-humans, and that the knowledge specific to humans consists primarily in the ability to align and stabilize the socio-technical system within an ecology of constant connectivity.

Working practices are then anchored in language in the form of technical vocabulary, classification systems, and language-in-use. When we say that talking is working we imply that discursive practices are means of

communication and interaction but also specific technologies. Institutional conversations, for example, perform a "transformation" through speech. Service work is accomplished through talk-in-situation. Practical knowledge therefore also consists in communicative competence: that is, knowing how to use language appropriately in specific contexts of interaction.

Finally, the analysis of working practices as knowing-how in situation requires consideration of two further handholds: rules and institutions, which concern normation. These are resources with which to produce the negotiated order and learn how to move in the interstitial space of ordinary prescription, exploiting the incompleteness of rules, and therefore opportunities between prescription and negotiation.

Hence, empirical study of organising as knowing-in-practice requires analysis of how, in working practices, resources are collectively activated and aligned with competence. This activity is not extemporaneous; on the contrary, what makes practices "plastic" – that is, relatively stable and mutable – is the activity that stabilizes the conditions for them. The activation of resources accompanies their anchoring in the material world, in language, and in the institutional, normative and aesthetic dimensions.

Knowing-in-practice can therefore be analysed as it is manifest in the linguistic and cultural systems, and the technological and normative infrastructure, located in time and space, and as it is socially constructed and constantly developed.

Conclusion

We may conclude that while people work, they perform activities of different kinds; they produce and reproduce society in its work relations, and they affirm an individual and collective work identity. We may also say that there is work that is necessary for a person to be able to work.

The workplace is an active context and not a mere container of activities: it helps us remember; it allows us to do some things and not others (for example, something that might put our safety at risk); it solicits our action with visual or auditory signals; it furnishes programmes that help us diagnose possible breakdowns and suggest how we should intervene.

The practice-based approach extends the original idea of work as interaction to encompass the contemporary entanglement of knowing, working and organising within a physical environment and according to varying situations. The aim of the approach and its research methodology

is to understand how work environments, equipped with artefacts and objects, may significantly facilitate the performance of tasks by those who work in those settings.

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