

## Skillful Performance

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- Spassky, I. D. (ed.) (1994). *The History of Domestic Ship Building*, volumes 1–3. St Petersburg: Sudostroenie (in Russian).
- von Busch, O. (2013). "Collaborative Craft Capabilities: The Bodyhood of Shared Skills." *Journal of Modern Craft*, 6(2): 135–46.
- Wartofsky, M. W. (1979). *Models: Representation and Scientific Understanding*. Dordrecht: Reidel.

## 5

### Talking about Competence

#### That "Something" Which Exceeds the Speaking Subject

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**Abstract:** In this chapter the theme of competence is addressed in relation to a processual approach to discursive practices. The object "competence" is constructed differently within three main discourses: entity-based, relational, and practice-based. We shall problematize how language constructs competence as a research object. In other words, what happens when we no longer believe in the language/reality relation? We pose the question of how a non-representational (better, a more-than-representational) approach changes our way of talking about competence. We do not argue "against" language; rather, we invite exploration "beyond" language and beyond language in a written text, since there is always a "something" that exceeds the speaking subject. We propose an experimental written/visual text: we use a traditional written text, based on the illustration of competence in two episodes, and a visual language based on three photographic interludes. The aim of the three interludes is to interrupt the smooth discourse that talks of competence in different practices. In this chapter, we invite empathy in reading; we challenge the rhythm of reading with an invitation to feel the poetry of a visual language. In so doing, we want to produce the effect of troubling the static, rational, and written representation of competence.

### 5.1 Introduction

This chapter addresses the theme of competence in relation to one of the most crucial issues in process organization studies: that is, language and communication

at work (Cooren et al., 2014). We want to investigate how the way that we talk/write about competence constructs and limits communicational activities and research practices. We explore possible questions that may disrupt the static and traditional way of studying competence at work, representing it in language, and writing about it in organizational texts.

The title of the chapter contains our main message, and it also encapsulates our line of inquiry. It states that there is a “something” in excess of language and of the speaking subject. This is not an argument “against” language, but rather an invitation to explore “beyond” language and beyond language in a written text. For this reason, in this chapter we use both a visual language—three photographic interludes—and a traditional written one. The aim of the three interludes is to interrupt a smooth discourse, to invite empathy in reading, to challenge the rhythm of reading with an invitation to feel the poetry of a visual language, and to trouble the linear, rational, and written representation of competence. If we go back to the etymology of the term “interlude,” we find that it derives from the medieval Latin *inter* (between) + *ludus* (play). An interlude may be an intervening episode, an entertainment between the acts of a play, or a short musical piece put between the parts of a longer composition. Our aim is to show that the interludes will produce these three effects: intervening, entertaining, and contributing to the overall composition. Our “composition” has intentionality and is a socio-material artifact that should be read within its context in relation to the ongoing debate on post-qualitative research methodologies and more-than-representational approaches.

How can we elaborate methodology after the problematization of language and “how do we think a ‘research problem’ in the imbrication of an agentic assemblage of diverse elements that are constantly intra-acting, never stable, never the same?” (Lather and St Pierre, 2013: 630). Interviewing and observing are the main tools of the humanist qualitative research that assumes the primacy of the subjects and presumes that the researcher’s goal is to represent, i.e. to “tell it like it really is out there,” in rich, thick description. But what happens when we assume “entanglement,” “socio-materiality,” and “assemblage” (Barad, 2013) as our research categories? In other words, what happens to us—researchers—when we no longer believe in the language/reality binary relation?

The various “posts” (in the plural, post-colonialism, post-critical, post-humanist, post-feminist, and post-everything) do not and cannot offer an alternative methodology, a corrective or a fix, with which to reassure oneself (St Pierre, 2011: 613). The questions about data, research design, and about what else the researcher can do when the illusion of interpretation and representation is over, have being variously posed:

What could be data that exceed researchers’ capacity to know them? What can count as data, and how do we recognize it when we see (or sense) it? . . . how does data appeal to us? Is there agency in data? Can data set things in motion, or is it condemned to its subordinate and passive status? If we choose not simply to “interpret,” what else can we do with data; and what does it do to us?

(Koro-Ljungberg and MacLure, 2013: 220)

Our chapter will give a direct answer to these questions. We will outline the context in which our text has been produced and in which we experiment with how to represent competence in light of disbelief in the power of language to represent a reality out there, while we remain in an outside place using the same language. We will proceed as follows. First we sketch three main discourses about competence (entity-based, relational, and practice-based). We stress that positioning competence within a practice-based discourse gives the opportunity to write about it within the rich connectivity of socio-material relations making up a working knowledge and a working practice. Then the first interlude enters as a “*photopoem*.” We propose an episode—extracted from a situation on a construction site—through which we communicate how competence is accomplished as an intermeshed collective doing and sensorial knowing. A second interlude separates the first episode from, and unites it with, the second one. In the second episode there is a craftswoman’s narrative about a red ceramic heart that symbolizes her competence as a ceramist and allows us to write of competence as formativeness, in relation to the object of the practice and how in doing the way of doing is invented. The third interlude precedes the discussion section, in which we return to the challenge posed by representationalism and advocate a plurality of “styles of saying.”

## 5.2 Articulating the Discourse on Competence

In mapping the ongoing conversations on competence, our intention is to articulate the nodal points that partially fix the meaning of competence. At the same time, we aim to reactivate this debate by introducing a new “articulation” into it. The concept of articulation (together with sedimentation) has been developed within discourse theory in order to account for the relative stability of discourses. Articulating implies “the construction of nodal points which partially fix meaning” (Laclau and Mouffe, 1985: 113). Over time, discourses achieve an “objective presence” (Laclau, 1990: 34) despite being forged by a radical contingency that tends to conceal its historicity and situatedness. In fact, sedimented discourses remain within the dynamics of politics and can be problematized in new articulations through a reactivation process.

The discourse on what constitutes competence at work is widespread and highly differentiated. We can distinguish among three discourses about competence, each based on different epistemologies: an entity-based discourse on competence as something that people have; a relational discourse in which competence is based on the interaction between individuals and work contexts; and a practice-based discourse in which competence is seen as an accomplishment or a situated performance. We briefly illustrate them.

Within an entity-based discourse—referring mainly to a rationalist and positivist understanding of competence—a dominant way to denote competence is through an “attribute view” (Boyatzis, 1982; Gonczy and Hager, 2010; Mulder et al., 2007). Competences are thus defined as individual resources that include motives, traits, skills, and bodies of knowledge that are applied during work and lead to performing better or worse. This view of competence at work has been largely criticized (Attewell, 1990; Dall’Alba and Sandberg, 2006; Eraut, 2001) on the grounds that it regards the individual and the work context as two separate entities and in so doing overlooks the relational, historical, and contextual nature of competence.

The relational discourse on competence originates from questioning whether individuals use the skills and knowledge that they possess and how they use them in accomplishing their work (Sandberg and Targama, 2007). It includes recent relational and processual perspectives based on interpretative, pragmatic, and constructionist theories in which competence is defined as an unstable, open-ended, and negotiated construct (Kosmala, 2013; Lindberg and Rantatalo, 2015; Velde, 1999). It is a radical change—from worker and work as two separate entities, to the workers’ lived experience of work—and this rhetorical move gives rise to an alternative way to understand what constitutes competence at work (Sandberg, 2005). Within the relational perspective, the centrality of knowing-in-action, understanding of work, and practicing are acknowledged; nevertheless, we still have a limited understanding of “how knowledge is connected to action” (Tsoukas and Vladimirou, 2001: 974).

A practice-based discourse on competence is articulated around the idea of practice as the site of competence, of knowing-in-practice as the performance of competence, and competence realized in socio-material relations. For this reason, practice-based approaches seem to offer the most comprehensive conceptualization of what constitutes competence, since they include artifacts and social relations embedded in a broader historical practice (Sandberg and Pinnington, 2009: 1143). In fact, practice rather than action or understanding becomes the fulcrum of the discourse on competence, and the ways of talking about it vary.

The most common practice-based approach, that of communities of practice (Lave and Wenger, 1991; Wenger, 1998), sees competence as collectively developed through joint enterprise, mutual engagement, and a shared repertoire of communal resources such as language, routines, stories, and tools. In cultural historical activity theory (Billett, 2001; Blackler, 1995; Engeström et al., 1999) competence is a relational whole since an activity integrates the subject, the object, and the instruments. Moreover, following Heidegger and a phenomenological and existential philosophy, competence has been articulated as a “way of being” (Sandberg and Pinnington, 2009), thus framing competence not only as a practice phenomenon but more specifically as the integration of all the practice aspects into a form. In other words, work cannot be separated from the lived experience of working, and in humanist practice theories (Schatzki, 2002) competence resides in humans.

We position our understanding of competence within post-humanist practice theories (Gherardi, 2012; Gherardi and Strati, 2012; Monteiro and Nicolini, 2015). Thus competence resides in the way in which humans and non-humans are linked by socio-material relations. This discourse on competence is expressed through the figure of a collective and processual competence related to activities, as working knowledge in situated, bodily, and emotional performances. To talk of working knowledge as performance is a rhetorical move, through which competence is not an attribute of individuals, either alone or in a collective, either in context or decontextualized. Rather, individual and working contexts achieve agency within a practice as “combined, situated and knowledgeable performances to ‘get on’ with the work” (Berner, 2008: 333). Knowing how to “get on” is part of the actuality of skillful action. It is an emergent property of the situated, meaningful practices of a collective and an ongoing social accomplishment constituted and reconstituted in everyday material practicing.

Our aim in mapping the discourse on competence is to show how it is articulated around three nodal points: competence as an individual attribute; a relational understanding of competence; and competence as a practice phenomenon. Nevertheless, the ongoing conversations on competence—the entity-based, the relational, and the practice-based ones—can be reactivated by considering a new articulation of the discourse: besides everything that can be said (or written) on competence through words, there is “something” that exceeds the speaking subject and the capacity to talk of competence. We shall illustrate this surplus with respect to strictly linguistic discourse; a surplus which cannot be dismissed as a mere matter of context and which is produced through “messy entanglements with energies and materialities embroiled in the drifts of affective interaction” (Iedema, 2011: 1167). For this reason we interrupt the text with Interlude I: please take a while to immerse yourself in this *photopem*.

## INTERLUDE I

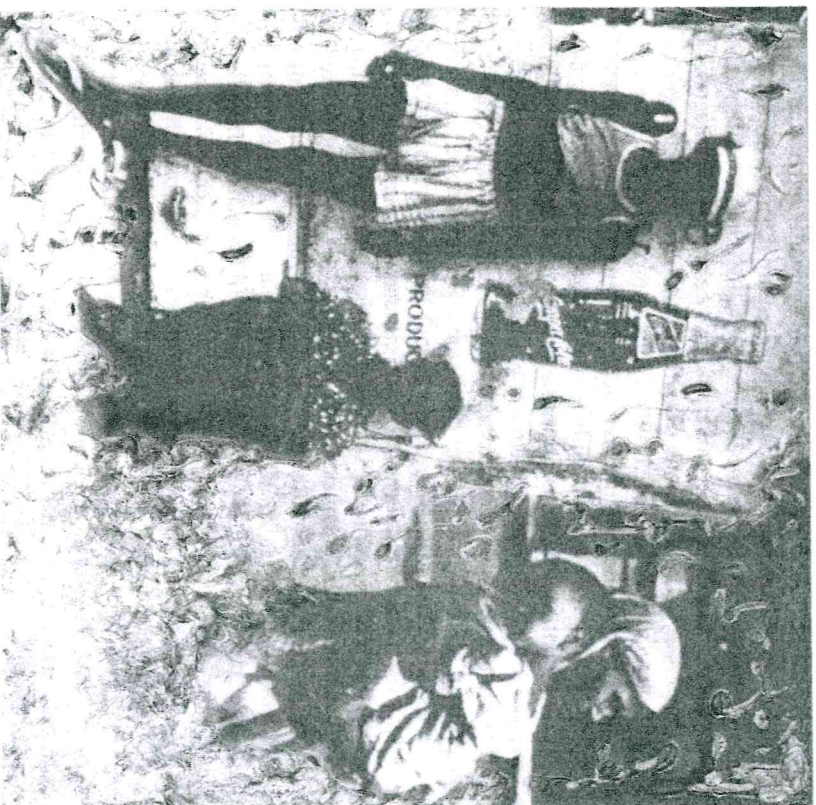


Figure 5.1

### 5.3 “Watch Out!” Competence as a Collective Accomplishment

With the first episode that we present, we wish to illustrate competence as a collective accomplishment, something that unfolds in relation to a working context, and something that is both performed by being said and at the same time performed by not being said but felt in bodies. We report an episode that has been discussed elsewhere (Gherardi and Nicolini, 2002; Gherardi, 2006). It is extracted from an ethnography conducted on a construction site.

Before describing the context, we anticipate the focus that we take in the description. Our narrative begins when the shout “Watch out!” is heard on a construction site and all those present are set in motion by it because they recognize the implicit order contained in the shout and know the practice script. We name a linguistic expression of this kind (and other similar expressions that form the situated vocabulary of a community) a “knowledge pointer,” since we want to stress how idiosyncratic expressions convey a complex message about attention, appropriate seeing, sayings, and doings, and how they trigger in the collective the establishing and maintaining of a common orientation for the time that the expression “Watch out!” has validity.

We invite the readers to perform an exercise in imaginary aesthetic participant observation<sup>1</sup> (Strati, 1999) and imaginatively immerse themselves in the situation, trying to imagine that they can hear the noises of a construction site, smell the dust in the air and taste it in their mouths, and feel the atmosphere of tension created by the shout “Watch out!”

Imagine that you are on a construction site where a roof is being restored. You should know that repairing the roof is a critical phase in restoration work because it is a key element in the stability of the entire building, and also because the work should be performed rapidly. Consequently, the restoration of a roof is carried out quickly and by as many workmen as possible.

The “filler” (diagonal) beam supporting the roof has to be laid with a specific slope. It consists of several timbers joined lengthways which rest on the internal load-bearing walls. Workers are therefore needed to lay the beams as they are hoisted up to them by crane, pushing them into the correct position and fixing them with temporary clamps. Other workers alter the masonry to provide support points for the beams. Yet others install the reinforced concrete armatures of the “yoke” which hold the four outer walls of the building together. Finally, other builders install the rafters to which the covering materials are to be fixed.

Consider that all this work is going on at around 20 meters from the ground and 6 to 8 meters above the upper story of the building. The building is surrounded by solid scaffolding which enables the workers to move around without difficulty. However, all the operations on the roof are carried out with the sole support of the older beams or the new ones, which together with the walls also serve as precarious walkways. If a workman (there are no women working there) wants to move, he has to climb onto a beam or a wall-top and use the thickness of the masonry as a pathway with a sheer drop on either side. In this mid-air network of walkways, the workers contrive to make sure that they do not block each other’s path.

In this situation, the hoist operator, sitting at the highest point of the roof with his legs dangling, is maneuvering one of the large filler beams. He is hoisting it up from the ground and has to swing it around to the other side of the building, where around ten builders are working. The arrival of the beam is preceded by repeated warnings: "Watch out for the beam!"

The "Beware" signal is echoed by everyone present and repeated to the new arrivals on the roof (even if they—like you—are some distance away): "Watch out for the beam!"

While everyone goes on with their work, they pay "attention" to what is happening, to the position of the beam, and how the others are reacting. They watch each other, and especially the hoist operator, seeking to interpret his intentions. In case of doubt, verbal negotiation begins: "Move over there a bit." "Yes, but give me a moment." The operation is commented on by the others, "more slowly... now lower it," which amongst other things heightens the tension. Finally, the beam is laid in place. A shout "Bloody hell, you took a week" signals that the danger is past. The tension and mutual observation to coordinate the operation return to their usual levels, and you too have the feeling that a special moment was opened and that the expression of relief closes it.

In the time elapsing between the "watch out" and the "bloody hell" you may have noticed an instance of collective competence in the way that both the workers directly engaged in moving the beam and those who are there but busy with other tasks create a common orientation towards what is taking place. They are collectively "doing" safety for themselves and for possible others, and for the materials with which they were working. They are also interpreting the situation, each other's conduct, and are concentrated on a common knowledge object (the renovated roof). Their performative utterances are oriented to shared action, and they take the form of short normative orders, without any need for further explanations. Communication takes place without words, with gestures, and with the tension visible in the postures of the bodies. The silence during the operation, in fact, is a telling message that interrupts the usual noises, and the "exceptionality" of the moment is embodied in the stiffness of the workers' backs, in the wandering of their eyes, and in their breathing.

"Watch out!" is a performative utterance: the words "watch out" produce an affective state (Walkerdine, 2010) that changes the emotional state of those present, who look for the source of the danger and turn to the others involved in the situation to understand how to react.

This excerpt from the field can be interpreted as an illustration of the collective, bodily, and tacit nature of competence in practice. Moreover, it testifies to a form of aesthetic understanding in which feeling, understanding, and knowing are intermeshed. Michael Polanyi (1966) describes this form of expert knowing as "personal" knowledge. Expert knowing is a form of action which is not rule based, which does not exclude the body by eulogizing the mind, and which remains mostly unsayable; knowing, in other words, which is tacit, sensible, or aesthetic.

The aesthetic dimension in competence is not just aesthetic judgment; it does not solely concern what is beautiful, ugly, grotesque, or kitsch. It is this as well, but it is also what the five senses of sight, hearing, smell, taste, and touch make collectively knowable (King and Vickery, 2013; Linstead and Höpfl, 2000). As the act of perceiving and judging sensorially, aesthetics is the particular form of knowing and acting that can be performed by activating the personal capacities of the individual perceptive-sensorial faculties and of the aesthetic judgment in the day-to-day lives of organizations.

People participate in organizational life on the basis of their individual capacities to see, hear, smell, taste, feel, and judge aesthetically. This differentiates among them, given that not everyone sees the same things, reacts to the same odors, or has the same taste: there are those who "have an eye" for things while others do not; those who have an "ear" or a "nose," those who are "good with their hands," "have taste." This sensible knowledge is a personal one, which is ineliminable and irreducible and accounts for the subject's intimate, corporeal relation with the experience of the world. Aesthetic understanding therefore constitutes a form of knowledge acquired through the senses which is collectively negotiated and perpetuated, a knowledge which individuals are able to put into practice, but are unable to describe in formalized terms (Strati, 1999). The sort of competences described in the episode must be learned by novices through the creative appropriation of the community's skills. Practice is acquired as aesthetic knowledge from clues and "sensory maps" (Gagliardi, 1990: 20) arising out of sensory experiences and it relies on ineliminable and incommunicable subtleties.

What is difficult to articulate in words, both for the researcher who tries to describe it and for the workman who tries to teach it to a novice, is "the feeling of the game" (Bourdieu, 1980). We argue that it is communicated with the help of knowledge pointers which give the clues for appropriating and keeping that knowledge in bodily schemata.

To communicate our feeling of the game we interrupt the text with *Interlude II*: once again, take a while to immerse yourself in this *photopoeim*.

## INTERLUDE II

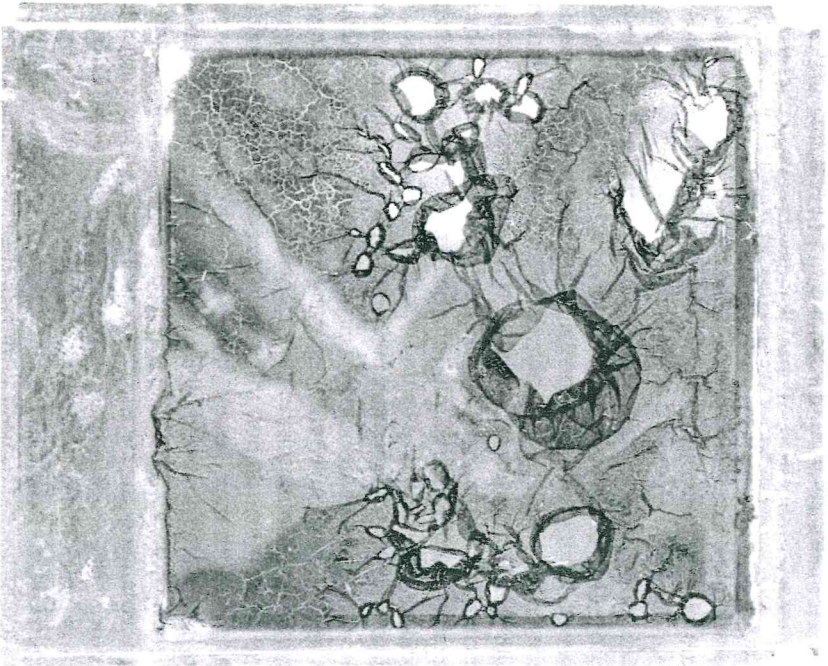


Figure 5.2

#### 5.4 “Little Red Heart”: Competence as the Process of Doing while Inventing the Way of Doing

In the second episode we present competence in relation to the emergence of the object of practice, and we discuss how in moving towards its realization, the knowledge necessary for its completion is invented. Within a practice-based framework, not only is practice defined as a collective knowledgeable doing (as we illustrated in the previous episode), but the product of the practice is conceived as a knowledge object (Knorr-Cetina, 1997) which is based on the notion of “epistemic thing” (Rheinberger, 1992).

Knowledge objects are characterized by a lack of completeness of being and a question-generating character. As described by Knorr-Cetina (2001: 181): “since epistemic objects are always in the process of being materially defined, they continually acquire new properties and change the ones they have.” Therefore the object of a practice may be conceived as knowledge that constitutes objects of investigation and is turned into objects of attachment for the practitioners. In fact, knowledge objects have the capacity to propel further investigations by pointing to ways to explore their not-yet-fulfilled potential (Knorr-Cetina, 1997; Nerland and Jensen, 2012). As one example, Knorr-Cetina (2001) points to how computer programs typically give advice on how they might be used to solve present tasks at the same time as they display directions for possible advancements and not-yet-realized opportunities. In this way, these programs form an arena for explorative engagement.

In our episode, we shall follow how the object of the practice is realized through epistemic practices that deploy competence in knowing and doing and contribute to enhancing the practitioner’s identity and attachment to practice. To interpret the episode, in which a craftswoman forms the object of her ceramic practice, we introduce the concept of formativeness. The term “formativeness” denotes the process by which phenomena (for instance an object, or a work of art) acquire form within working practices. At the same time, formativeness qualifies a specific knowing process realized through a doing that while it does invents the “way of doing” (Pareyson, 1954: 18). We shall discuss formativeness later in this section, but we first provide the reader with a knowledge pointer to look for formativeness while reading the story of the little red heart.

We have chosen Marika’s story<sup>2</sup> because it is emblematic not only of the embeddedness of materiality in the formative process but also of the “evocative” and indexical way in which she recounted this story:

One of my representatives brought me a catalogue: “You have to get these colours [which are so fashionable now]. You must be able to do this. We can’t let them invade our market.” I said: “I can’t understand the bright colours. But I need to examine this relief work. Send me a sample, please.” He sent me something like this, he sent me a little red heart. I went home utterly dejected, because I was saying to myself: “No, I’ll never be able to do these colours, with this relief”... I was so angry that morning that I gave up and went home, I was miserable. I said: “It’s not possible that they can make such beautiful things.” That little heart was so beautiful. Superb.

The first part of Marika’s story develops around a challenge raised by a representative and which subsequently marked her career. Marika’s reaction was prompted not so much by production concerns (although these were also present) as by a more passionate and emotional response related to the

challenge, manual skill, and expertise. Marika's story is infused in part with enthusiasm for the beauty of those products, and in part with the anger and dejection provoked by not knowing how to reproduce them. Now comes the turning point of the story:

My husband [and business partner] is always much more attentive than me: "Calm down for a moment and let's take a look." He took this little heart, because it seemed impossible to get certain colours, and a paper knife. He did like this [mimicking the gesture of scraping the coloured surface with the knife] and the paint came off: it was cold ceramic and I hadn't noticed!... I put it in the dishwasher, and the colour immediately disappeared. When I took it out and my husband said, "But the paint washes off. Just look at this stuff." I cheered up. I then got to work on finding the same colours but which were permanent paints.

Marika was relieved when she realized that the beauty of the little heart was ephemeral and could be removed by a dishwasher. She came to this realization by determining how the object had been made. Her husband first scraped it with the knife, and then she tested the paint with the dishwasher. To understand how it had been possible to create the ceramic heart, Marika and her husband invented how to study it. And this was the stimulus for Marika to improve her technique by trying to reproduce the color's vibrancy in a permanent manner:

Then I looked at everything, because I wanted to understand how they worked... It took me two months to get there because I was working the reliefs directly on the paint... I couldn't do it, because the paint detached when I applied the crystalline glaze... they disappeared, came off, so I had to find a kind of paint produced with my methods, my clays, mixed with the right balance, you see? In the end it was a kind of alchemy, being able to make the relief stick and not disappear when I applied the glaze. In the end, we were successful, and it was a great satisfaction.

Marika recounts her story like an epic, a constant quest hampered by the resistance of the material, by paints that detach and disappear, and techniques that do not yield the desired results. In so doing, Marika introduces a central dimension of the formative process: inventing ways to do things, which is here termed an "alchemy," a sort of quasi-magical balance achieved through numerous attempts. The dimension of Marika's passionate attachment to her profession also transpires from her words. Not only does achieving the goal produce satisfaction, but the development of expertise strengthens the professional identity, as Marika tells us at the end of her story:

These are the dynamics of ceramics: You get a hint and you use it to evolve and find alternatives, so that professionally nobody can say that you sell junk! This is the thing that interests me most. I feel that I'm a serious craftswoman... I also had the satisfaction of seeing the French lady [who made the cold ceramic

products]... I went there and I told her, "Look, you don't do ceramics, you're not a ceramist, I'm sorry. I do ceramics. You can't sell fakes."

The wealth of detail of the episode recounted by Marika allows us to show the indissolubility of material, form, and affect in the formative process. Through this process Marika not only manages to produce an object better than that of a competitor but also expands her knowledge of techniques, paints, and materials. She thus consolidates her professionalism and feels entitled to say: "You're not a ceramist... I do ceramics." The little red heart and Marika's affective subjectivity emerge from dialogical practices born of joint action. Affect does not refer to a personal feeling, but rather to a pre-personal intensity that escapes and exceeds the human body, corresponding to augmentation or diminution in that body's capacity to act (Massumi, 2002).

In order to discuss the process whereby affect, doing, and knowing unite into a form, we have borrowed the concept of formativeness from the philosophical aesthetics of Luigi Pareyson, rediscovered within organizational aesthetics (Strati, 1999, 2016). Human action, he writes (1954: 185; English translation, 2009: 108), "always has a dual nature: in one way it tends to realize shapes, and in another it expresses the totality of the person." Pareyson, in fact, focuses on the practice of aesthetic production and conceptualizes it in terms of formativeness: "speculative and practical operations consist of a formative activity which, in a specific field, does things at the same time as it invents how they should be done" (Pareyson, 1954: 23).

Formativeness characterizes all human activities and not just the art world, since every "human operation is always formative, and even a thought process and a practical undertaking demand the exercise of formativity" (Pareyson, 1954). In the arts, to form while inventing how to give form constitutes the deep sense of artistic practice, and a work of art has to be regarded in terms of pure formativeness. This is because this is the case of the creation of art for art's sake. But in the whole of human industriousness there is a wide variety of "arts of": the art of riding a bicycle, of performing a surgical operation, of playing a musical instrument, of using a software program, of doing ceramics; "arts of" that "all human beings include in any human activity, not only in thinking or acting or working, but also devoting themselves to operations which contain an embryonic artistic intentionality, such as telling a story or writing a letter or drawing up a 'composition' or manufacturing an object" (Pareyson, 1954: 241; English translation, 2009: 132).

Formativeness leads to realization along a tortuous path of invention and organization. In the doing that invents its way of doing, there is a sense of attempting, of improvisation, of correcting and redoing to progress towards a final result that is a work which is "accomplished *comme il faut*." Through a knowing process where the attempts are exposed to failure and the approximations to the

risk of incomprehension, “the process of interpretation is endless, because as long as there is knowledge, there is no interpretation that is definitive, and that is not subject to a perpetual process of revision that aims at an ever greater adjustment” (Pareyson, 1954: 188; English translation, 2009: 112).

Once again we interrupt the text with an interlude, the last one: please once more take a while to immerse yourself in this *photopem*.

### INTERLUDE III

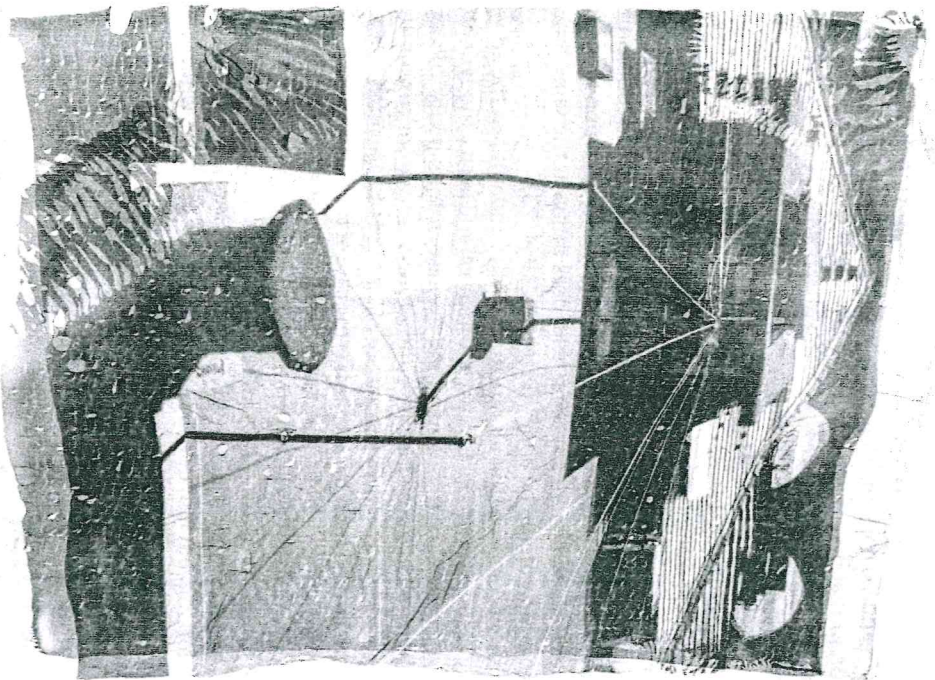


Figure 5.3

### 5.5 Discussion: Competence as Images at Play in Theory

In this section we will discuss the relationship between the two episodes and the three interludes. In our chapter, in fact, the images have not had the role of being illustrations of, or complements to, the written words. They have had meanings of their own, and they play and disturb the order of the discourse. The images and the text play interruptively with each other, unveiling the illusion of a linear text and a straightforward discourse. Images may disrupt the dominance of an argument (Koro-Ljungberg and Maclure, 2013; Hultman and Taguchi, 2010) and suggest the presence of an open-ended text in which an open-ended topic is just made present in words. Images are not used to represent, but to distract, experiment, energize, disturb, and give pleasure.

The three interludes in the text perform the function of a warning sign: “this is not a representational text,” and the title of the chapter has prepared the reader to look for a “something” that exceeds the speaking subject. Moreover, the two episodes concerning competence in its becoming have suggested that there is much more to what can be said and written in words. Therefore it should be clear that we engage ourselves in an experimental visual/written text talking of competence in a non-representational way, since we want to suggest that the exploration of alternative ways to representational knowledge may enrich our relationship with what we study and how we represent what we understand through our epistemic practices.

We now say a little more about the interludes and their significance so distant from being just an artistic embellishment of this chapter.

The three interludes consist of the reproductions in black and white of three images that were originally in color. They are “*photopems*” taken from Antonio Strati’s conceptual art photography named “*Photopoesia*.” All three were created by using the film that the Polaroid Photographic Company created to realize instant photographs. Here the organizational creation and the art photographer’s creativity mix, intersect, and interact.

*Interlude I* shows a *photopem* created with film SX-70, which used to be a rather common and popular film for instant photography, and whose particular frame later became a sort of photographic icon. The photographic image was manipulated through pressure applied to its surface with the fingers, thus modifying the forms and colors. This *photopem* was published in the Art Portfolio section of Peggy Sealfon’s book, *The Magic of Instant Photography* (1983).

*Interlude II* again shows a *photopem* realized with film SX-70, but in this case the photographic image is seen from inside the film, so that the surface and the front of the photograph become its back. The photograph was “opened,” and its surface was detached from the back support, which was therefore eliminated. Again, the hands of the art photographer interfered with the conventional technological photographic process that made the instant



photograph; and the artwork realized is a photograph seen from within. This *photopoein* is at the Italian *Museum of Contemporary Photography*, Cinisello Balsamo, Milan.

*Interlude III* too shows a *photopoein* exhibited at the *Museum of Contemporary Photography*. The emulsion of the professional film T-809 was manually loosened from its support and lifted on watercolor paper. The dimensions of the film were 20cm x 25cm, while the watercolor paper was 30cm x 40cm. The emulsion was therefore stretched in order to cover most of the paper surface, as one can see in the *Interlude*. Forms and colors were modified by this manual manipulation of professional material for instant photography. The process was then repeated, and a second emulsion with the same image, produced in the same way as the first one, was stretched over the first emulsion to saturate the nuances of the colors, to give strength to the forms, and to exhibit the delicate fragility of the photographic matter. Barbara Hitchcock, Director of the *Polaroid Collections*, stressed in *The Polaroid Book* (2005: 29) that these images were “the first Polaroid Emulsion Lifts that I had ever seen . . . 8x10-inch prints characterized by a dimensionality I had never before witnessed . . . With a delicate touch, you could feel the bas-relief of the emulsion beneath your fingers.”

All three *Interludes* show artistic engagement in exploration of photographic language through the problematization of conventional ways to do photography: a) the choice to produce artwork by means of ordinary photographic film (*Interludes I* and *II*); b) the photograph seen from within (*Interlude II*); the hands “having the last word” in realization of the image (*Interludes I, II, and III*). Photographic language may be considered as one way to use a non-representational “style of saying,” and a parallel may be drawn between the different ways of making the *interludes* “speak” and the interruption that they produce within the written text as an implicit critique of representational knowing.

The critique of representational knowledge and the search for non-representational approaches has already a tradition in organization studies, and it is at the center of renewed attention among cultural geographers, post-qualitative researchers, and affect scholars. The critiques of representational epistemologies are based on the specific status of representation as the true copy of reality and it “can follow two different tracks. It can question the notion of representation ontologically, or it can question the epistemological status of representations as true reproductions of the world and re-conceptualize them as signs mediating situated interpretations” (Lorino et al., 2011: 774). The aims of non-representational approaches in organization studies—according to Lorino and colleagues—is to contextualize organization research by making the researcher visible and positioning his/her reflexivity; and to capture the creative moves of organizational life and the transforming power of human imagination. To do so, it is necessary to take emotions and feelings

into account; to use non-logical ways of thinking including narratives, metaphors, and abduction; and to give account of time as the continuous flow of experience. In other words, the connection between a processual approach and the search for non-representational ways of writing and talking about organization is established. Nevertheless, what is still in an exploratory phase is how to produce texts (and theories and methodologies) inspired by non-representationalism.

Non-representational theories have become a reference point for some authors, especially for cultural geographers, mobilities researchers, critical social theorists such as post-structuralists, phenomenologists, pragmatists, feminists, and others. Nigel Thrift is credited with the expression “non-representational theory” (Thrift, 1996, 2005, 2007) that “is concerned with attempting to hone existing practices and invent new ones that can provide performative counters to the prevailing notions of what constitutes knowledge and creativity” (Thrift, 2005: 10). Non-representational theories emphasize the materiality of thinking, ordinary situated practices, spatialities, and mobilities. They study embodied experiences, affects, and enactments instead of just their representation. The main focus is on

how life takes shape and gains expression in shared experiences, everyday routines, fleeting encounters, embodied movements, precognitive triggers, practical skills, affective intensities, enduring urges, unexceptional interactions and sensuous dispositions . . . which escape from the established academic habit of striving to uncover meanings and values that apparently await our discovery, interpretation, judgment and ultimate representation

(Lorimer, 2005: 84)

In this questioning of the world, its representation, and language, the body in its material relatedness with the world, in its capacity to know and to speak “differently” comes to the fore. By means of the first episode, we illustrated the collective, affective, and bodily dimension of competence, and our aim was to stress that “something that perhaps escapes or remains in excess of the practices of the ‘speaking subject’” (Blackman and Venn, 2010: 9). Following Deleuze (1988), we assume that there is always something in excess to being.

If we go back to the first episode that represented observations made in the field and translated into words, we can easily discern what was left out and how it troubled our understanding of what we read. What was left out and what we can grasp only by intuition and empathy is competence as sensible knowledge embedded in the working bodies that we described, the gestures and motions of those bodies when they expressed the tension, and the varying intensities embedded in that special atmosphere charged with the sensation of risk. Moreover, we missed the smells that were in the air, smells relative to the many human and other materials emmeshed together, the

noises full of situated meanings for those working up on the roof and the same noises empty of the same meanings for the researchers observing from the ground and who did not possess the codes to understand them. On reading the written text, we had to use our capacity of imagination and empathy in order to put the text in its context. In fact, when doing research and reading research reports we do this all the time, so that our competence as researchers-readers-writers of similar texts is always at play, but it is erased (in Derrida's terms, 1967) from a pretension to be "a true representation." An aesthetic approach to organizational life and to its representations is grounded in the problematization of what is left out and how it can be recovered by experimenting with alternative methodologies.

The second episode told another story about competence that complemented what had already been said with the first one. Both episodes represented working practices in their contingent process of becoming; in both episodes competence was a knowledgeable collective accomplishment; in both of them socio-materiality was engaged with human agency and sensible knowing. The second episode had something more and added something different to a practice-based understanding of competence. It consisted of a narrative in the words of a craftswoman who relived for us the crucial turning point in her business. At the same time it was a narrative that we presented to the readers as a representation of the relation with the object practice. We interpreted it through the aesthetic concept of formativeness because it made visible the creativity at work in any practice while it unfolds towards realization of its object. Competence is not only relational with reference to a context and its socio-material affordance; it also has a temporal unfolding, and embedded in that temporality is a specific way of knowing. The knowledgeable doing of a working collective does not precede its being practiced; it is always creative since it is invented while doing.

In practicing, the subjectivity of the practitioner is affirmed. Competence in practicing contributes to the performance of a practice of subjectification (not of a subject) and to its communication to the outside world. This process of subjectification arises from the world being "made up of all kinds of things brought into relation with one another by many and various spaces through a continuous and largely involuntary process of encounter" (Thrift, 2007: 7). Moreover, through Marika's words, we entered the dimension of affect, desire, and imagination, and we could grasp how human bodies and things co-evolve with things.

Therefore, the second episode served to foreground a processual approach to competence where the process of forming the object and the subject of a practice is a creative activity of formativeness. We maintain that a fine-grained understanding of organizational life requires looking for "styles of saying" that do not violate the mysterious, the evocativeness, the tactness, and the aesthetics of organizational and work practices.

## 5.6 Conclusions

In this chapter we argue for exploration of ways of "talking" about competence that are non-representational in order to reactivate the debate on the meaning of competence. Representational knowledge is widely discussed and critically problematized in organizational studies, and this chapter contributes to the search for non-representational approaches by using different languages and styles to reflect on and discuss competence at work.

When writing this chapter we imagined a reader willing to engage in a multiple language experience in order critically to investigate the issue of how we talk and write on the subject of competence. The experience of reading the written text, in fact, is interrupted by the experience of immersing oneself in the *photopoems* that constitute the interludes. The two languages—written and visual—move in parallel. They alternate with each other, and each maintains its own specific capacity to express, communicate, and interact with both authors and readers. The architecture of the chapter, in other words, is meant to stimulate a play between the authors' styles to address the issue of studying and communicating competence at work and the readers' sensibility and knowing.

## Notes

1. By virtue of participant observation conducted through the imagination, the readers "see," "hear," "perceive," and "are aware of" the research process in which they are imaginatively taking part through sensorial faculties rather than intellectual abilities (Strati, 2003: 59).
2. This episode—which is presented here for the first time—is taken from a broad research program on learning in craft practices which Silvia Gherardi conducted together with other members of the RUCOLA research unit (<HTTP://www.unithn.it/rucola>). She particularly wishes to thank Manuela Perrotta for the use of shared material. They have previously published on the topic of formativeness: see Gherardi and Perrotta (2013).

## References

- Atwell, P. (1990). "What Is Skill?" *Work and Occupations*, 4, 422–44.
- Barad, K. (2013). "Mat(r)king Time: Material Entanglements and Re-memberings: Cutting Together-Apart." In P. R. Carlie, D. Nicolini, A. Langley, and H. Tsoukas (eds), *How Matter Matters: Objects, Artifacts, and Materiality in Organization Studies*. Oxford: Oxford University Press, 16–30.

- Berner, B. (2008). "Working Knowledge as Performance: On the Practical Understanding of Machines." *Work Employment Society*, 22(2): 319-36.
- Billett, S. (2001). "Knowing in Practice: Reconceptualising Vocational Expertise." *Learning and Instruction*, 11: 431-52.
- Blackler, F. (1995). "Knowledge and the Theory of Organizations: Organizations as Activity Systems and Reframing of Management." *Journal of Management Studies*, 30: 863-84.
- Blackman, L. and Venn, C. (2010). "Affect." *Body and Society*, 16(1): 7-28.
- Bourdieu, P. (1980). *The Logic of Practice*. Stanford, CA: Stanford University Press.
- Boyatzis, R. E. (1982). *The Competent Manager*. New York: John Wiley.
- Cooren, F., Vaara, E., Langley, A., and Tsoukas, H. (2014). *Language and Communication at Work: Discourse, Narrativity, and Organizing*. Oxford: Oxford University Press.
- Dall'Alba, G. and Sandberg, J. (2006). "Unveiling Professional Development: A Critical Review of Stage Models." *Review of Educational Research*, 76: 383-412.
- Deleuze, G. (1988). *Spinoza: Practical Philosophy*. San Francisco: City Lights Books.
- Derrida, J. (1967). *Of Grammatology*. Baltimore, MD: Johns Hopkins University Press.
- Engeström, Y., Miettinen, R., and Punamäki, R. L. (eds) (1999). *Perspectives on Activity Theory*. New York: Cambridge University Press.
- Eraut, M. (2001). *Developing Professional Knowledge and Competence*. Hong Kong: Routledge/Falmer Press.
- Gagliardi, P. (1990). "Artifacts as Pathways and Remains of Organizational Life." In P. Gagliardi (ed.), *Symbols and Artifacts: Views of the Corporate Landscape*. Berlin: de Gruyter, 3-37.
- Gherardi, S. (2006). *Organizational Knowledge: The Texture of Workplace Learning*. Oxford: Blackwell.
- Gherardi, S. (2012). *How to Conduct a Practice-based Study: Problems and Methods*. Cheltenham: Edward Elgar.
- Gherardi, S. and Nicolini, D. (2002). "Learning the Trade: A Culture of Safety in Practice." *Organization*, 8(4): 191-223.
- Gherardi, S. and Perrotta, M. (2013). "Doing by Inventing the Way of Doing: Formativity as the Linkage of Meaning and Matter." In P. Carille, D. Nicolini, A. Langley, and H. Tsoukas (eds), *How Matter Matters: Objects, Artifacts and Materiality in Organization Studies*. Oxford: Oxford University Press, 227-59.
- Gherardi, S. and Straat, A. (2012). *Learning and Knowing in Practice-Based Studies*. Cheltenham: Edward Elgar.
- Gonczl, A. and Hager, P. (2010). "The Competency Model." In P. Peterson, E. Baker, and B. McGaw (eds), *International Encyclopedia of Education*. Oxford: Elsevier, 403-10.
- Hitchcock, B. (2005). "When Land Met Adams." In S. Cist (ed.), *The Polaroid Book: Selection from the Polaroid Collections of Photography*. Köln: Taschen, 24-9.
- Hultman, K. and Taguchi, L. H. (2010). "Challenging Anthropocentric Analysis of Visual Data: A Relational Materialist Methodological Approach to Educational Research." *International Journal of Qualitative Studies in Education*, 23(5): 525-42.
- Iedema, R. (2011). "Discourse Studies in the 21st Century: A Response to Mats Alvesson and Dan Kärreman's 'Decolonializing Discourse.'" *Human Relations*, 64(9): 1163-76.
- King, I. W. and Vickery, J. (eds) (2013). *Experiencing Organisations: New Aesthetic Perspectives*. Faringdon: Libri Publishing.
- Knorr-Cetina, K. (1997). "Sociology with Objects: Social Relations in Postsocial Knowledge Societies." *Theory, Culture and Society*, 14(4): 1-30.
- Knorr-Cetina, K. (2001). "Objectual Practice." In T. R. Schatzki, K. Knorr-Cetina, and E. von Savigny (eds), *The Practice Turn in Contemporary Theory*. London: Routledge, 175-88.
- Koro-Jungberg, M. and Maclure, M. (2013). "Provocations, Re-Ur-Visions, Death, and Other Possibilities of 'Data.'" *Cultural Studies ↔ Critical Methodologies*, 13(4): 219-22.
- Kosmala, K. (2013). "Scripting Shifts in the Regulatory Structures: Professional Competence Constructed as a Lack." *Organization*, 20(4): 577-95.
- Laclau, E. (1990). *New Reflections on the Revolution of Our Time*. London: Verso.
- Laclau, E. and Mouffe, C. (1985). *Hegemony and Socialist Strategy*. London: Verso.
- Lather, P. and St. Pierre, E. (2013). "Post-Qualitative Research." *International Journal of Qualitative Studies in Education*, 26(6): 629-33.
- Lave, J. and Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge, MA: Cambridge University Press.
- Lindberg, O. and Rantatalo, O. (2015). "Competence in Professional Practice: A Practice Theory Analysis of Police and Doctors." *Human Relations*, 68(4): 561-82.
- Linstead, S. and Höpfl, H. (eds) (2000). *The Aesthetic of Organization*. London: Sage.
- Lorimer, H. (2005). "Cultural Geography: The Bussyness of Being 'More-than-Representational.'" *Progress in Human Geography*, 29: 83-94.
- Lorino, P., Tticard, B., and Clot Y. (2011). "Research Methods for Non-Representational Approaches to Organizational Complexity: The Dialogical Mediated Inquiry." *Organization Studies*, 32(6): 769-801.
- Massumi, B. (2002). *Parables for the Virtual: Movement, Affect, Sensation*. Durham, NC: Duke University Press.
- Monteiro, P. and Nicolini, D. (2015). "Recovering Materiality in Instructional Work: Prizes as an Assemblage of Human and Material Entities." *Journal of Management Inquiry*, 24(1): 61-81.
- Mulder, M., Weigel, T., and Collins, K. (2007). "The Concept of Competence in the Development of Vocational Education and Training in Selected EU Member States: A Critical Analysis." *Journal of Vocational Education and Training*, 59(1): 67-88.
- Nerland, M. and Jensen, K. (2012). "Epistemic Practices and Object Relations in Professional Work." *Journal of Education and Work*, 25: 101-20.
- Pareyson L. (1954). *Estetica: Teoria della Formatività*. Torino: Edizioni di "Filosofia." Reprint 1988, Milan: Bompiani (partial English Translation: *Existence, Interpretation, Freedom: Selected Writings*, edited by P. D. Bubbio. Aurora, CO: Davies Group, 2009).
- Polanyi, M. (1966). *The Tacit Dimension*. London: Routledge and Kegan Paul.
- Rheinberger, H. J. (1992). "Experiment, Difference and Writing: I. Tracing Protein Synthesis." *Studies in History and Philosophy of Science*, 23(2): 305-31.
- Sandberg, J. (2005). "How Do We Justify Knowledge Produced within Interpretive Approaches?" *Organizational Research Methods*, 8: 41-68.
- Sandberg, J. and Pinnington, A. (2009). "Professional Competence as Ways of Being: An Existential Ontological Perspective." *Journal of Management Studies*, 46(7): 1138-70.

- Sandberg, J. and Targama, A. (2007). *Managing Understanding in Organizations*. London: Sage.
- Schatzki, T. R. (2002). *The Site of the Social: A Philosophical Account of the Constitution of Social Life and Change*. Pennsylvania: Pennsylvania State University Press.
- Seafon, P. (1983). *The Magic of Instant Photography*. Boston, MA: CBI Publishing.
- St Pierre, E. A. (2011). "Post Qualitative Research: The Critique and the Coming After." In N. Denzin and Y. Lincoln (eds), *The SAGE Handbook of Qualitative Research*. Thousand Oaks, CA: Sage, 611–25.
- Strati, A. (1999). *Organization and Aesthetics*. London: Sage.
- Strati, A. (2003). "Knowing in Practice: Aesthetic Understanding and Tacit Knowledge." In D. Nicolini, S. Gherardi, and D. Yanow (eds), *Knowing in Organizations*. Armonk, NY: M. E. Sharpe, 53–75.
- Strati, A. (2016). "Aesthetics and Design: An Epistemology of the Unseen." In R. Mir, H. Willmott, and M. Greenwood (eds), *The Routledge Companion to Philosophy in Organization Studies*. London: Routledge, 251–9.
- Thrift, N. (1996). *Spatial Formations*. London: Sage.
- Thrift, N. (2005). *Knowing Capitalism*. London: Sage.
- Thrift, N. (2007). *Non-Representational Theory: Space, Politics, Affect*. London: Routledge.
- Tsoukas, H. and Vladimirou, E. (2001). "What Is Organizational Knowledge?" *Journal of Management Studies*, 38: 973–93.
- Velde, C. (1999). "An Alternative Conception of Competence: Implications for Vocational Education." *Journal of Vocational Education and Training*, 51(3): 437–47.
- Walkerline, V. (2010). "Communal Beingness and Affect: An Exploration of Trauma in an Ex-Industrial Community." *Body and Society*, 16(1): 91–116.
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.

## 6

### Interactional Expertise and Embodiment

Harry Collins

**Abstract:** In the first part of this chapter I introduce the idea of interactional expertise, while in the second part I focus on its implications for philosophical theories of the importance of the body in forming our conceptual world. I argue that the way philosophers have dealt with the body turns attention away from the most important questions and that we cannot answer these questions without making the notion of socialization, and therefore interactional expertise, a central concept in our thinking. This makes language at least as important, and often more important than bodily practice in our understanding of the world. The notion of a disembodied socialized agent leads in the direction of interesting questions while the notion of an embodied but unsocialized human actor is unimaginable.

#### 6.1 Interactional Expertise

The philosophical *idea* of interactional expertise first arose before the *term* was invented. This was in the mid-1990s, in the context of the discussion of the limitations of artificial intelligence (AI); the question was can machines without human-like bodies be intelligent?<sup>1</sup> The first published appearance of the *term* "interactional expertise" (IE) was in the "Third Wave" paper by Collins and Evans, published in 2002 but this paper dealt with the concept "by-the-way" while attempting to shift social scientists' attention to expertise in general. The first full discussion of the term is found in a 2004a paper entitled "Interactional Expertise as a Third Kind of Knowledge," which draws together the AI stream of thinking, fieldwork observations, and an analysis of language. In all, four channels feed into the *idea* of interactional

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His book, with Sean D. Kelly, *All Things Shining: Reading the Western Classics to Find Meaning in a Secular Age*, uses the great works in the Western canon to show step by step how our culture lost its sense of enchantment and meaning. His other publications include: *Being-in-the-World: A Commentary on Heidegger's Being and Time Division I*, with Stuart Dreyfus, *Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer*, *On the Internet*; and, with Charles Taylor, *Retrieving Realism*. His selected essays are contained in a two-volume set published by Oxford University Press: *Skillful Coping* (2015) and *Background Practices and the Understanding of Being* (forthcoming). The podcasts of his courses on philosophical issues in Western literature have drawn a worldwide audience.

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## Acknowledgments

We would like to express our great appreciation to the following colleagues who have generously offered their time to act as reviewers for the papers published in this volume:

Ann Langley, HEC Montréal, Canada  
Davide Nicolini, University of Warwick, UK  
Manuela Perrotta, Queen Mary University London, UK  
Kai Riemer, University of Sydney, Australia  
Linda Rouleau, HEC Montréal, Canada  
Jörgen Sandberg, University of Queensland, Australia  
Ted Schatzki, University of Kentucky, USA  
John Shotter, University of New Hampshire, USA and London School of Economics, UK  
Haridimos Tsoukas, University of Cyprus, Cyprus and University of Warwick, UK  
Dvora Yanow, Wageningen University and Research, The Netherlands



**OXFORD**

UNIVERSITY PRESS  
Great Clarendon Street, Oxford, OX2 6DP,  
United Kingdom

Oxford University Press is a department of the University of Oxford.  
It furthers the University's objective of excellence in research, scholarship,  
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First Edition published in 2017

Impression: 1

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Published in the United States of America by Oxford University Press  
198 Madison Avenue, New York, NY 10016, United States of America

British Library Cataloguing in Publication Data

Data available

Library of Congress Control Number: 2017932562

ISBN 978-0-19-880663-9

Printed and bound by

CPI Group (UK) Ltd, Croydon, CR0 4YY

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# Skillful Performance

## Enacting Capabilities, Knowledge, Competence, and Expertise in Organizations

Edited by  
Jörgen Sandberg, Linda Rouleau, Ann Langley,  
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