CHAPTER 7

A Practice-Based View of Transformative Learning: An Exploratory Study on the Practical Creativity

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The Issue

This research analyzes transformative learning in relationship to workplace education, intertwining it with the theoretical frameworks of informal and incidental learning (Watkins & Marsick, 2020), and practice-based

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studies (Gherardi, 2019). Our purpose is to examine the contribution that a practice-based view of transformative learning offers to the study of creativity (Bracci et al., 2021). We are interested in detecting how and under what conditions professionals in a wide-range of fields can learn and practice to design and realize innovative creative products. The ability to develop innovative products can be a source of competitive advantage for companies; the generation of ideas for new products, or creativity, is the first step in this innovation process (Thompson, 2018). In order to expand our understanding about how to cultivate practices of creativity, the strategic aspects we analyzed and valorized are the comprehension, identification, and development of learning and knowledge situated in material work practice.

The chapter is structured as follows: First, a comprehensive theoretical framework on transformative learning and practice-based studies is outlined. Second, the research design and methodology are described, followed by data analysis. Third, the emerging findings are presented. The chapter sums up with discussion and reflective conclusions.

Theoretical Frameworks

A Practice-Based View

The conceptual framework is nurtured by the growing breadth of eclectic contributions on transformative learning theory (Marsick & Watkins, 2018; Mezirow & Associates, 2000), hybridized with studies on creativity and practices within the field of adult education and workplace learning, including practice-based studies on community (Wenger et al., 2002), situated learning (Suchman, 2000), socio-materialism (Gherardi, 2019), and practical creativity as sociocultural participation (Glăveanu, 2011; Nohl, 2015; Sennett, 2008).

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Transformative learning is informed by how, and the level at which, we question, reflect upon, and converse about experiences in order to develop and grow (Eschenbacher & Fleming, 2020). Mezirow's perspective transformation highlights the necessity to create a critical awareness of how perspectives and guiding assumptions limit our ways of living, working, and being in the world (Eschenbacher & Fleming, 2020). Despite the accusation of being a primarily rational-based and individual-based theory of development, perspective transformation does not reinforce an exclusively individualistic approach to learning, as Mezirow himself put emphasis on "intersubjective learning through discourse" (Eschenbacher & Fleming, 2020, p. 5). Intersubjective learning refers to any learning process that happens between people who communicate and act in order to support or understand each other (ibid., p. 5).

Expanding this position, our focus is on the type of intersubjective, inter-corporeal, and inter-material learning that happens through and in practices (Nohl, 2015). Several voices including Tisdell (2012) and Taylor & Snyder (2012), Marsick and Neaman (2018) have emphasized the need to widen the approaches to transformative learning from a variety of practical perspectives. Our effort is to provide a practice-based view of transformative learning theory, paying specific attention to the inter-practices material domain in which people are pushed to question their familiar and prior assumptions and to experiment with new practical schemes of action (Nohl, 2015).

A practice-based view of transformative learning is distinctive in that it:

- emphasizes that behind all the apparently durable features of our world, from routine activities to formal organizations, there is some type of productive and reproductive work. This proposition transforms the way in which we conceive of social order and conceptualize the apparent stability of the social world (the nature of social structures—in sociological jargon, as a socio-material product);
- forces us to rethink the role of agents, materials, and structures (e.g., creative, the created, the designer, the artifacts, etc.);
- foregrounds the importance of the body and objects in workplace and social practices;
- highlights the nature of situated knowledge and practice-oriented discourse;

- reaffirms the centrality of personal interests and of the constructs of power and positionality in human and non-human relationships (Bracci et al., 2021; Nicolini, 2012).

A practice-based approach promotes a non-dualistic account of learners and context bound up in the dynamic unity of practice. Central are interactions with others, situated communication, the construction of situations, the relationship with the physical environment and the objects in it, and, above all, the principle that these elements are held together and express a logic of practice contextual to the situation (Gherardi, 2009; Sandberg & Tsoukas, 2011). Theories of practice locate the source of significant patterns in how conduct is enacted, performed, or produced (Gherardi, 2019). They offer a socio-material viewpoint in which agency is distributed between humans and non-humans and in which the entanglement among the social world, organizational routines, and materiality can be subjected to inquiry.

A practice-based lens offers viewpoints that are amenable to constructing a deeper interpretation of transformative learning theory. In practice-based accounts, participation in social practices is a key to understanding learning (Hodge, 2014). Transformative learning is portrayed as a process by which an adult discovers determinants of his/her/their/its thoughts, feelings, and actions that have been at work unconsciously. This discovery is made possible through the dysfunction of assumptions that have been shaping an individual's experience resulting in a disorienting dilemma. In the wake of this experience, the learner may engage in self-examination and critical reflection on assumptions, a path in which the person can come to realize the limitations of key assumptions and potentially revise them. The assimilation of initial meaning perspectives corresponds to an "inbound" trajectory of membership of a large-social and community practice (Hodge, 2014). In the same context, a disorienting dilemma, self-examination, and critical assessment of prior assumptions can be conceived as the "outbound" trajectory identified by a practice-based approach (Wenger, 1998). If we translate the practice-based approach to transformative learning, transforming meaning perspectives is not only a cognitive act of revision and change of meaning schemes, but also an act of transformation of tacit and implicit structures of thinking that is derived from the practices, and that conceptually returns to practices. Transformative learning thus can be seen as an intentional break with one community of practice along with socialization

into the practices of a new community—which leads Hodge (2014) to assert that transformative learning functions as a way of engaging in inter-practice thinking.

A practice-based approach could represent one of the future strands of research for expanding transformative learning theory beyond the cognitive and rational positions. While the interconnected relationship of transformative learning theory, the arts, and expressive ways of knowing is an established realm of inquiry (Lawrence, 2014), few studies have focused on practice-based learning and its domain on practical creativity as a reflective process situated in material practices. A common misconception holds, that the best way to encourage people's creativity is simply to get out of the way and let them be creative. Although it's certainly true that individuals might be naturally curious and inquisitive, the fabrication of innovative and creative products is located in inter-material practices of learning, doing, reflecting, and transforming (Resnick, 2018). This process is not a "suddenly insightful" one-shot moment, but looks more like a transformational process within an iterative cycle of informal reflective learning (Nohl, 2015).

Against this backdrop, the next paragraphs draw insights from an interpretative case study on practice-based material creativity in order to depict new perspectives on transformative learning theory.

The Study Design

Drawing on key literature themes, we adopted an exploratory case study in, the interpretative tradition, involving 20 professionals expert in creativity practices. Table 7.1 synthesizes graphically the composition of the sample of 20 participants: their number, their ages, and professional roles. In order to de-identify participants, respondents are conventionally categorized as P1, P2, P3, etc.

The researchers chose an interpretive case study approach because of its advantages "in creating novel and profound insights and its focus on examining the rich social, cultural, material and political influences in an organisational context" (Naidoo, 2019, p. 259). The unit of analysis in our study is the individual respondent, e.g., a person who had an experience of relevance to the study (Myers, 2017).

The research questions were:

1. How do practices of creativity and innovation take shape?

Table 7.1 Participant demographics

Professional role	*Participants*	*Code number and age range*
Creative directors	$n = 5$	**P1** = 37 years old; **P2** = 38 years old; **P3** = 40 years old; **P4** = 47 years old; **P5** = 55 years old
CEO of innovative enterprises in the media and tech field	$n = 4$	**P6** = 39 years old; **P7** = 42 years old **P8** = 54 years old; **P9** = 63 years old
Fashion graphic designers	$n = 2$	**P10** = 34 years old; **P11** = 38 years old
Human resource senior manager	$n = 2$	**P12** = 45 years old; **P13** = 48 years old
Career developer	$n = 2$	**P14** = 32 years old; **P15** = 40 years old
Social media specialist	$n = 5$	**P16** = 33 years old; **P17** = 39 years old; **P18** = 41 years old; **P19** = 43 years old; **P20** = 47 years old

Source Study data summarized by the authors

2. How and under what conditions do creative professionals produce objects, artifacts, and products that are considered innovative?
3. How can adult learners be supported in developing core competences required to think, create, and realize creative and innovative products?

We used a purposive sampling technique that included snowballing methods to recruit a heterogeneous group of practitioners in the field of creative professions and highly innovative service companies as participants in this study. We based the rationale for our material focus on creative practices on practice-based studies (Gherardi, 2019) indicating that the sociomaterial approach would allow us to focus on what people do in practice, not what on they say. We purposefully included a wide range of practitioners considered as "creative workers" with different ages/backgrounds/genders across a variety of organizations and companies that are considered "leaders" in producing innovative services and products. We expected this sampling methodology to afford us maximum opportunities for in-depth analysis of creative practices of practitioners

from different backgrounds, ages, and workplaces, as well as having a variety of professional experiences (Gherardi, 2019).

Relevance to the research questions was prioritized in sampling rather than representativeness of the broader population of those engaging in creativity practices as the criterion for the selection of cases (Creswell, 2015). All participants were informed about the context and the object of the study. A semi-structured interview guideline (Rosenthal, 2004, pp. 48–53) was developed, in order to conduct guided in-depth interviews. One qualitative in-depth semi-structured interview was conducted with each of the 20 participants with probes intended to gain deep insights by allowing flexible answers and follow-up questions, while still ensuring comparability among the different actors. The interviewees were, initially, asked to freely give an account of their professional histories from the beginning to the present. Only thereafter did the interviewer pose questions to request that the interviewee narrate parts of his/her work in practice, drawing out detailed and rich descriptions of how to produce creative and innovative products.

The interviews lasted between 60 and 180 minutes depending on the communicativeness of the interviewees. Given the "narrative drives and constraints" that "propel the narrator to (a) go into details, (b) close the gestalt, and (c) assess the relevance and to condense" during his or her account (Schütze, 2014, p. 229), such in-depth semi-structured interviews have demonstrated a high validity as concerns the participant's professional practical experience (though not necessarily regarding historical facts).

The interviews were then transcribed and interpreted following the principles of the qualitative thematic analysis prescribed by Creswell (2015). In the first step, the content was summarized; the second step served to reconstruct the manner in which the interviewees tackled the topics of their professional experience, usually not explicated by themselves but implied as a means of sense-making while describing practices in their narrations. Hence, this second interpretative step focused on the material aspects of everyday practices, that is, on the tacit "orientations" within which problems were solved, innovative artifacts and products were produced, and on "*what can be innovative*" was perceived (Bohnsack, 2014, pp. 221–222).

Special attention was given to those among the 20 interviews where the professional orientations changed over time. Such a transformation of practice orientations reflects conceptually Mezirow's notion of a change

of "meaning perspective" and underscores the tacit and practical aspects of "thought, feeling and will" (Mezirow, 1978, p. 105). Most important, the actors in fact may not even explicitly know that what they went through, essentially, was a transformative learning process or at least the beginning of one. As researchers, we reinterpreted the acts or changes described in their stories—ex post facto—as processes of transformation (Kroth & Cranton, 2014).

The reconstruction of implicit orientations was facilitated by comparing various professional accounts with one another to elucidate the specific ways in which, for example, material and collaborative practices were transformed, and the perspectives on innovation and creativity changed over time (Nohl, 2015). The focus was on practice domains in their workplaces that can be considered transformative because they challenge familiar and taken-for-granted trajectories, embedded in their work and in the way they work, draw out different ways of thinking, and thus help them to look at a situation from diverse perspectives (Hodge, 2014; Nohl, 2015). These comparative analyses among actors involved also helped identify common patterns across different professional narrations and different domains of practice involved. Most importantly, the core elements of these transformative practices were then captured in the emerging findings section.

Additional anecdotal data were gathered also through ethnographic observations carried out in three of the human resource managers' organizations, and via formal and informal discussions among researchers and involved practitioners. These anecdotal data were used to triangulate the sources of information and validate insights and categories emerging from the analysis of the interviews. The issue at stake was to define an approach able to make explicit and formalize the competence profiles of professionals whose expertise and commitment contributed to creating the excellence representing the distinctive hallmark of their organizations and companies. We explored the interrelationship between competence and practice, considering them as "mutually dependent constructs, constantly negotiated through practising" (Bjørkeng et al., 2009, p. 154). The proprietary know-how, guarded in professional practices and constantly renewed through practical creativity, is intended as a process establishing connections in action between the material and immaterial elements that constitute a practice so that they are bound together within a form (Sennett, 2008). We followed a narrative approach as the main entrance to

practice-based transformation of perspectives, since our aim was to illustrate how ongoing "practicing creativity" rests on methods that enact changing realities. The scope was to furnish narratives of the processes through which creative products are constructed (Gherardi, 2019).

Emerging Findings. Creativity as a Performative, Ecologically Embedded, and Collaborative Practice

We discuss findings based on preliminary analysis. We limited the discussions of the findings only to categories that are relevant to the research questions as well as workplaces and education that prioritize creativity and innovation. We seek to offer insights for practitioners and adult educators as to what types of accompanying learning paths they might want to facilitate or construct to increase the performative potential of work practices. Findings also offer discernments of potential methodological repertories to embed in educational and training programs with the aim of cultivating practical creativity.

Creativity as a Socio-Material Practice

One of the first emerging outcomes was to frame creativity as situated and embedded practice, as well as the result of material collaboration and transfer of knowledge, models, and skills. This is quite novel if we consider that the strong contemporary belief is that creativity is the result of action or thinking by an individual considered a "genius." Through a practice-based lens, creativeness, instead, is seen not contained solely in the psyches of particular individuals, but also, in the objects, techniques, and materials that those individuals manipulate to produce ideas or objects that materialize creativity. When asked about how they produce an innovative product, participants pointed to the possibility of materially "doing" and "re-doing" things as well as the opportunity to collaborate with colleagues from other sectors.

The unit of inquiry, then, encompasses the analysis of these performative acts in terms of main actors, learning processes within the entire realm of material practices through which a creative product finds its shape. "When I make things, I don't know when my body ends and material starts, or when material ends and my body starts. They are one thing" (creative director, 37 years old). Each product is created within a vast nexus of material practices, also referred to as knots, networks,

sites, configurations, bricolage, assemblages, and prototypes (Gherardi, 2019). "Every piece is a collective undertaking, and a plethora of people have contributed" (graphic designer, 41 years old). The activity of "creative design and fabricating" is one of the most illustrative forms of admixed both cultural and social participation: it entails engaging with extant cultural and material artifacts to produce new material artifacts, employing culture to generate new and unexpected ways to use materials, ideas, media, stuff, and technologies (Gherardi, 2019; Resnick, 2018). We can assume the term "creating-in-practice" to move away from the mental and individual image of creativity to consider it as an enactment. To convey a preliminary idea of how creative practice is here analyzed as creating-in-practice, we may say that creativity can be seen and analyzed as an activity, rather than as a mental skill; it emerges from the context of its production and is anchored by/in material supports in that context. We may also say that creativity is both an individual and collective activity; that it is an activity situated in working practices of people who try to convey in practice a potential idea; and that, therefore, practical creativity is contextual as opposed to being decontextualized and mental.

Another key-concept emerging is the formativeness and re-formativeness that denotes the process by which objects, products, artistic work acquire from within a practice. Form-and-reformativeness also qualifies a specific learning process realized through a doing that, while it does, reinvents "the way of doing."

> How does practical creativity work? How do we give rise to the form of artistic products? Well, there's no one answer. Forming and creating requires a relationship with materiality. It is not a mere ideational process that you can carry out in front of the screen of your computer. Creating means forming a material, a product, in example a prototype. Creativity is the process whereby artistic and innovative products take form and become realized: is not in the idea before doing, is both the work practices that bring to the birth those products and the accomplished pieces that those products assume in the process of creation—creative director, age 47.

As the creative director expresses below, it is not a matter of sudden and brilliant inspiration, but rather of following a series of suggestions that arise from the formative activity itself and prompt the mixing of characteristics that make the product so unique. It is more an experiment with materiality and learning that occurs in this situation:

> I had to do some work for the Academy, I wanted to take something, for decoration, I wanted to make a project and I needed something transparent but solid … So, I tried out some things for this project and then I looked for some transparent varnishes, and resin was ok. I don't remember when and how... but I made this block of resin. I had to create some movement in this block, and I began to do some tests, fine, fine... and then I searched for a different resin, here and there, I experimented a bit, then I found these special resins used for flooring, among other things. You try things, you experiment, you get information... nobody teaches you how to use resin for a show or which resin is sensitive to damp, and so on... you try them out. We create a lot of things, very different things, in the sense that we don't repeat things in series, we make things felt in gut, we make them feeling, touching, experimenting, tasting the material and its potential—fashion graphic designer, age 38.

This material approach to creativity does not at all neatly separate learning from doing (they are typically described as coincident), knowing from creating, and, as the responses of our participants pointed out, creating-in-practice contains at the same time the creation and the acquisition of knowledge, and the enactment of this creative learning.

Socio-Material Approach, Creativity, and Transformative Learning

What can this socio-material approach add to transformative learning theory? Creative practice is a socio-material learning process because: (a) the set of skills and types of knowledge that practitioners possess are developed through iterative cycles of imagination, inquiry, experimentation, testing, and validation; (b) this iterative cycle is carried out in collaborative practices; and (c) creativity exists only in relation to an established ensemble of cultural norms, material practices, and products that nourish the iterative learning process and integrate its "outcomes." Material creation, in this way, is seen,

> as a collaborative process of working with a shared object and growing through the process. To solve complex and unforeseen problems, at the edge of our competence, we have to create, extend, play and build shared products and services—career developer, 40 years old.

The situated collaborative practices described by participants diverge from other routine social practices in that they usually take place in

the fluid settings designed for the furtherance of innovation and knowledge. Rather than merely relying on mundane habits or repeated meaning schemes (that may be also needed some days), such practices are aimed at solving emergent undefined problems, creating, testing, and validating new schemes of action, and constantly pursuing novelty and innovation.

> That there's no one way to do creative things, because I believe that it is not through a prescriptive and routinized path that one can learn how to produce high-quality and innovative services"—graphic designer, 41 years old.

Colleagues can play a crucial role in fostering, encouraging, guiding, and supporting creative learning:

> There is a constant interplay between making new things in the world and making new ideas in your head. As you make new things, and get feedback from others (and from yourself), you can revise, modify, and improve your ideas. And based on these new ideas, you are inspired to make new things—social media specialist, age 39.

The process goes on and on, with making and learning reinforcing one another in a never-ending spiral (Resnick, 2018).

> Creativity does not mean being struck by a divine lightning bolt. It means to have a clear objective, to test a project, to have motivation to be open to feedback from other viewpoints, to cultivate passion. Creativity draws out from a very specific hard work, which combines curiosity-driven exploration, with playful experimenting and systematic inquiry. It is a typical distortion of the belief that innovative ideas come up as stunning insights, but actually they are the outcomes of an iterative cycle of imagination, vision, designing, testing, collaboration and reflection upon all the process —social media specialist, age 39.

This last point deserves particular attention since it postulates more than an interconnection—we would use the expression of "entanglement"—among creativity, culture, practice (Gherardi, 2019). Practice is vital for the existence of creativity and creativity is vital for culture transformation and practices development.

Figure 7.1 synthesizes a framework for creativity as a socio-material-practical learning process that brings together "self" and "others"—peers, practitioners, possible target of clients—the "existing" and the "new," the "culture" and the "practices," and captures the intricate entanglement of all of them in the form of creative activity.

Several important aspects of the creative process are illustrated in Fig. 7.1 that identifies creativity as a situated-practical-learning process:

1. creative acts are simultaneously forms of externalization of prior culturally assumed schemes and of material expression;
2. "creation" is always an emerging performance, integrated in pre-existing cultural ensembles but capable of bringing about new possibilities which professionals are required to re-view in order to re-create both *within,* and *coherently with,* the new framing that emerges;

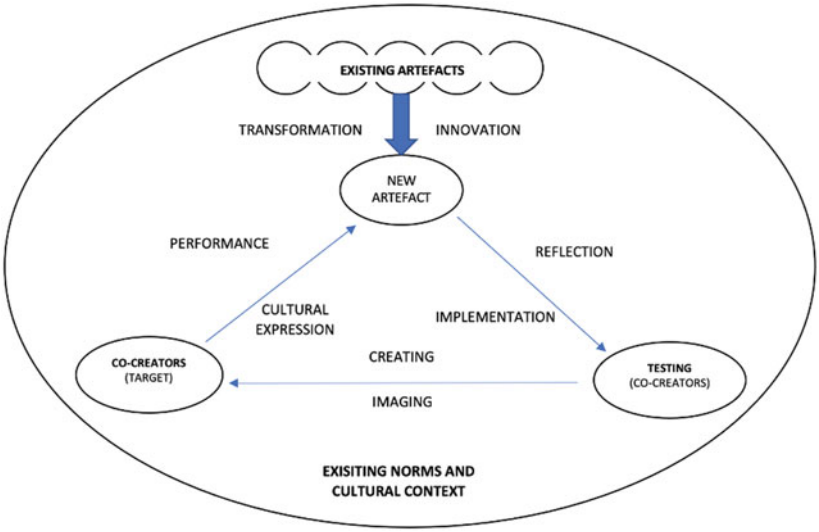

Fig. 7.1 Creativity as a performative socio-situated practice (*Source* Personal Elaboration of the Authors, inspired by Glăveanu [2011]

3. creators and professionals collaborate in multiple and dynamic ways in the creation of the creative product, in testing it, and in reflecting *on* and *upon* the process.

> When you make something in the world, it becomes an external representation of ideas in your head. It enables you to play with your ideas and to gain a better understanding of the possibilities and limitations of your ideas. Why didn't it work the way I expected? I wonder what would happen if I changed this piece of it?—CEO, 42 years old.

This perspective enriches our understanding of what is called here "externalization" of prior culturally assumed schemes that are more dialectic and intertwined in creative thinking, acting, reflecting (Glăveanu, 2011).

> Creation never spurs from nowhere, with no roots and no help from others. If I have to design a bag, I need to talk with the artisans that will fabricate the bag, with the material responsible for understanding what materials or leather will fit with my idea, I need as a minimum some dialogue and exchange—CEO, 39 years old.

Key to our discovery is that collaborative practices in workplaces catalyze divergent thinking, creativity, and potential for situated transformations. By giving an external shared form and shape to their ideas, professionals also provide opportunities for other people to play with their projects and give suggestions based on them. The dual process of performing creativity, and of being recognized as so doing, is thus an ongoing negotiation between the creative practitioner, perceived as performer, and their peers, acting as target and co-creators (both internal and external) (Hjorth et al., 2018). Such creative "entre-relating" succeeds when:

> the audience of the innovative products perceive an organization, its processes, players and products, able to fully enact their values, preferences, and practices—CEO, 39 years old.
>
> If you need to produce a bag, or if you are asked to design a service or a product, you need to pose yourself questions as: How can I make it more useful for more people? Who will use this bag? What are their needs?—fashion graphic designer, 38 years old.

Implications for an Education to Creative and Critical Thinking

The entanglement among creativity, practice, learning, and culture proposed in the present chapter has several important methodological implications. We desire to outline here only one of the major contributions—innovative ways of researching and fostering creative and critical thinking in education.

It is widely accepted that at the heart of any long-term strategy to prepare people for the jobs they will want to occupy in the future, we need to have a much more intentional approach to supporting creative learning and antidisciplinary research throughout our education systems (Schmidt et al., 2016, p. 155).[1] The limited capabilities of educational institutions and traditional teaching methods to adequately prepare new generations for the uncertainties and potentialities of a rapidly changing working life are widely recognized.

How can we help such students as they move through university and beyond, continue to learn in the kind of professional activities that are informed by a practice-based approach, so that they are supported in becoming creative thinkers? A possible enacted response to this challenge is to provide students with problem-based methods and high complexity scenarios. To solve ambiguous and partially unforeseen problems at the edge of their creative competences, where students have to fabricate, extend, test, and build shared artifacts, which translate in practice their evolving knowledge, understanding, imagination, and reflection (Lehtinen et al., 2014). The key challenge is not how to "teach creativity" to future professionals, but rather how to create a fertile environment in which their learning and creativity can take root, grow, and flourish. A practice-collaborative informed approach to the education of creativity operates with a different set of assumptions and tools than those commonly used in education today. It encourages active engagement with cultural resources, the exercise of joint activity in the production of new

[1] Antidisciplinary research is a construct proposed to define working in spaces that simply do not fit into any existing academic discipline—a specific field of study with its own particular words, frameworks, and methods" in order to engage people "interested in disruptive ideas, the people who can see future sooner than others (Ito, 2016). In this chapter, we use the expression "antidisciplinary research" to refer to the cross-disciplinary and trans-disciplinary approach devoted to the cultivation of future creative and innovative professionals.

artifacts, and collective-ideas-sharing with small but incremental changes as well as the modelling through an iterative cycle of practicing, testing, reflecting, and communicating.

We assume that working in high uncertainty contexts, with the need for bringing innovation in content, processes, and materials, in some ways had to force our interviewees to cope with ambiguity as central to their job—"identifying the common in the contradictory, tolerating the anxiety implicit in paradox, searching for synthesis and reframing" (Mezirow et al., 2012, p. 80, in Eschenbacher & Fleming, 2020, p. 5). Those elements could have challenged their habitual automatic unconscious mechanisms of self-actualization, and motivate them to go beyond their comfort zone.

The proposal to create a shared repertoire of practices that foster innovation-creating processes can represent a useful resource, both for leveraging past experience and for creating new knowledge—assuming that it is used as a process that is constantly managed, updated, renewed, and extended. Such a repertoire cannot be considered or used as a set of decontextualized teaching techniques or strategies to be applied arbitrarily without an appreciation for their deep connection to the larger theoretical frameworks of transformative learning and to the purposes of teaching for change (Taylor & Cranton, 2012). Understood in the latter context, however, it can offer suggestions and methodological trajectories to assist future practitioners (and researchers) in carrying out coordinated inquiries, cross-fertilizing their knowledge, and hybridizing across multiple domains of knowledge (Lehtinen et al., 2014). In broad overview, innovation-creating processes may involve deliberate efforts toward spanning boundaries of prevailing prior knowledge by creating novel often far-reaching networking linkages to experts, organizations, and communities representing heterogeneous domains of knowledge, competences, and experiences.

Conclusions

The influence of practice-based studies (Wenger et al., 2002) on creativity studies in the workplace requires going beyond the present conventional research differentiation of the individual from the collective in examining learning processes and embracing an integrative sociomaterialistic approach. Within those frameworks, workplace learning is understood to involve not just human change but interconnections of humans

and their actions with rules, tools and texts, as well as cultural, and material environments. Such interactions are often embodied, not even involving conscious cognitive activity while, at the same time, they are also embedded in everyday practices, actions, and conversations (Fenwick, 2008).

The practice-based view of transformative learning theory that we have partially captured through our study may shed light on the argument that entails augmenting the possible construing of meaning perspectives to include representations of the often tacit understandings that structure social practices and the process of meaning perspective transformation, itself, as a movement from one social practice into another, or of spanning different social and community practices to produce creative thinking (Hodge, 2014). It prompts investigating the methodological implications of this depiction of the learning process as situated in the system of ongoing practices in ways that are relational, mediated by artifacts, and always rooted in a context of interaction. To sum up, this perspective has four main features:

a. It is oriented toward processes, or what people do in action;
b. It involves an interest in the social aspects of learning, placing processes of knowing and creating not solely in the mind of the individual but also in the emerging entanglement of social practices and relationships with other individuals;
c. It acknowledges that the collaborative practices leverage what individuals bring to this entanglement as they co-create in social practices;
d. It sees knowledge as situated in a spatio-temporal context, anchored in materiality, mediated by what has happened in the past and has been learned from experience but also by the contact with other systems of practices capable to break the attachment to this consolidated knowledge, to open views of things from a different perspective that enables a new framing/re-framing of the situations.

The discussion articulated herein has for sure some limits. The empirical investigation at hand, albeit being based on interviews with actors of different genders, educational backgrounds, and ages who are engaged in various topical terrains, nevertheless works with a snowball-determined sample that implicitly cannot exclude bias. Nor, having been aggregated from a population rather homogenous in many ways, can the

sample typology, although covering positionalities such as age, gender, and education, be considered representative of the many populations with different life experiences, e.g., as ethnic minorities (Johnson-Bailey, 2012), or from other societies (Taylor & Snyder, 2012, pp. 42–44). Future research needs to explore whether and how creativity could be supported in training activities in formal contexts. Moreover, the field of study in practice-based approach to transformative learning, undoubtedly in the early stages of an ongoing performance, surely contains vastly more questions still unexplored than answers: How and under what conditions, for example, might it be possible to deliberate critical reflection in collaborative practices? How do transformational processes actually occur? What role, if any, have prior consolidated assumptions on transformational practices in confining our thinking? Those are only few of the open-ended questions that need to be investigated in the future.

Despite, or precisely because of these limitations, the hope is that the empirical results discussed inspire further empirical research and new theoretical reflections on transformative learning, by drawing out complementarities between transformative theory and a practice-based approach.

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