

The Contamination of Practices:

***How Practice Theories Matter in
Multiple Domains***

Edited by Paolo Magaudda and Emanuela Mora

Sociologica

CURATED

Sociologica

International Journal for Sociological Debate

Practice Turn

CONTENTS	ORIGINALLY PUBLISHED
<p>The Contamination of Practices: How Practice Theories Matter in Multiple Domains <i>Paolo Magaudda & Emanuela Mora</i></p>	13(3) 2019
<p>Modelling Practice: The Inertia of Body Ideals in the Fashion System <i>Paolo Volonté</i></p>	13(3) 2019
<p>Dark Enactments in Milan: A Practice-Centred Exploration of an Italian Post-Punk Subculture of the '80s <i>Simone Tosoni</i></p>	13(3) 2019
<p>Practice Theory and Media Infrastructures: "Infrastructural Disclosures" in Smartphone Use <i>Paolo Magaudda & Tiziana Piccioni</i></p>	13(3) 2019
<p>Practice Theories and the "Circuit of Culture": Integrating Approaches for Studying Material Culture <i>Emanuela Mora, Eleonora Noia & Valentina Turrini</i></p>	13(3) 2019
<p>Cycles of Dispositions–Unfoldings. A Retro-ANT View of Practices <i>Alvise Mattozzi</i></p>	13(3) 2019
<p>Learning and Shaping Expert Knowledges: The Case of Precision Medicine <i>Stefano Crabu</i></p>	13(3) 2019
<p>The Sociomateriality of Cooking. The Practice Turn in Contemporary Food Studies <i>Lorenzo Domaneschi</i></p>	13(3) 2019
<p>Expert Wine Tasting as a Social Practice: An Enactive Ethnography <i>Mario de Benedittis</i></p>	13(3) 2019
<p>Automatizing Green Practices? The Analysis of Reverse Vending Machines as a Re-contamination of Theories of Practices <i>Paolo Giardullo</i></p>	13(3) 2019

- My Journey within Practice-Based Approaches Bandwagon** 13(3) 2019
Mika Pantzar
- Stirring Up Practice Theory: A Comment** 13(3) 2019
Alan Warde
- Practice Reloaded: A Statement, an Acknowledgment and a Comment** 13(3) 2019
Attila Bruni

The Contamination of Practices: How Practice Theories Matter in Multiple Domains

Paolo Magaudda*

Emanuela Mora†

Published: December 31, 2019

Abstract

This introduction presents the genesis of *The Contamination of Practices: How Practice Theories Matter in Multiple Domains* Symposium. The Symposium is the outcome of a research network established to explore new ways to adopt, criticize and expand the approaches that fall under the definition of practice theory, in relation to different topics, and to answer multiple research questions. The shared foundation underlying the contributions is developed around the metaphor of “contamination”: while up to the present the efforts of scholars of major practice theory have been to sharpened to specify a common theoretical framework, we argue that practice theory is at the verge of entering a new stage of diffusion and contamination. Contamination is intended here in a double sense: on the one hand, practice theory is contaminating several fields and domains of social research; on the other hand, its conceptual framework is also being contaminated by other intellectual and theoretical traditions, as it is being innovatively adopted and adapted based on the different topics and questions it addresses. Each of the nine articles comprising the Symposium addresses this contamination in a specific way.

Keywords: Practice theory; contamination; sociology; Symposium; introduction.

1 The Contamination of Practices

This Symposium is the outcome of a research network established to explore new ways to adopt, criticize and expand the approaches that fall under the definition of *practice theory*, in relation to different topics, and to answer multiple research questions. The underlying basis of the contributions is the metaphor of “contamination”: while up to the present the effort of major practice theory scholars has sharpened and specified a common theoretical framework (Shove et. al., 2007; Shove et al., 2012; Couldry, 2012;

* FISPPA Department, University of Padova (Italy); ✉ paolo.magaudda@unipd.it;  <https://orcid.org/0000-0003-0830-8299>

† University Cattolica del Sacro Cuore, Milan (Italy);  <https://orcid.org/0000-0003-0906-9074>

Warde, 2017; Hui et al., 2017), we argue that practice theory will soon enter a new stage of diffusion and contamination.

Contamination is intended here in a double sense: on the one hand, practice theory is contaminating several fields and domains of social research; on the other hand, its conceptual framework is, at the same time, contaminated by other intellectual and theoretical traditions, as it is being innovatively adopted and adapted on the basis of different topics and questions addressed from time to time. Moreover, it is the very genesis of the set of theories labelled “theories of practice”, which suggests contamination as a strategy to develop a more comprehensive interpretative capacity. The theoretical roots of the theory of practice, indeed, bring back Wittgensteinian and Heideggerian’s emphasis on praxis over mental space, as reinterpreted by Theodore Schatzki (Schatzki, 1996; Schatzki et al., 2001). At the same time, in the social sciences, efforts from scholars such as Pierre Bourdieu (1977) and Anthony Giddens (1984) emphasise the need to find a new balance between structural constraints and individual agency to understand social behaviours. To achieve this aim, Bourdieu elaborated on the concept of “habitus” and popularized the notion of “practice”; Giddens emphasised the recursive interaction between structure and agency, employing his *structuration theory*.

At the beginning of the Noughties, this stream of philosophical and social theory was re-articulated by cultural sociologist Andreas Reckwitz (2002), through an operative definition of “practice” more suited for empirical research. In his view, the notion of “practice” is not the opposite of abstract and theoretical activities; it is instead a distinctive “configuration” consisting “of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge in the forms of understanding, know-how, states of emotion and motivational knowledge” (Reckwitz, 2002, p. 249). On the basis of this definition, a more specific application of practice theory has been shaped by a group of scholars led by sociologist Elizabeth Shove (Shove et al., 2007 & 2012). Shove and colleagues define social practices as the dynamic outcomes of the interactions and linkages between three distinctive dimensions: *materials*, which include things, technologies and tangible physical entities; *competences*, which encompass skills and know-how implied in practice; and *meanings*, which include symbolic meanings and ideas (see Shove et al., 2012, p. 14). Thus, studying social reality from a practice theory perspective means first and foremost focussing on the way materials, competences and meanings emerge as stable and socially shared configurations, as has been done in recent years by analysing a variety of notable cases: from consumption (Warde, 2005; Sassatelli, 2007) and environmental issues (Gram-Hanssen, 2010; Spaargaren, 2011) to photography (Hand, 2012) and music (Magaudda, 2011).

In the last decade, Shove and colleagues have consolidated a body of research supported by the central axis of the theory of practices. Their most recent collective works indicate a refinement of the theoretical perspective, suggesting an expansion of the range of studied phenomena and of the theoretical traditions compatible with the central axis. For instance, the volume *The Nexus of Practices* (Hui et al., 2017) addresses some criticisms raised against this approach, such as viewing practice theory as missing an analysis of vast and expansive phenomena or as undermining individuals. More recently, the collection *Infrastructures in Practice* (Shove & Trentmann, 2019) explored the crucial nexus between practices and the different kinds of networks that deliver services like heating and electricity to people, outlining the fundamental mutual dependence between infrastructure as materially organised systems and the organisation of everyday patterns and routines of consumption.

2 Patterns and Directions in Practice Theory

Alongside this mainstream trend, other parallel paths have continued to develop the approach of practice theory in different directions in a more or less coherent way. Among these paths, Gert Spaargaren and colleagues have contributed to practice theory by accounting for long-term and broad processes of change in societies. With their contribution, they try to overcome the “supposed incommensurability of transition theory and practice theories” (Spaargaren et al., 2016, p. 14). Transition studies are an interdisciplinary field of recent institutionalization focussed on the analysis of social transformations that can encourage change towards greater environmental and social sustainability of production and consumption models (Marquard et al., 2012). Positioned within innovation studies, transition studies

are focussed on understanding how contemporary socio-technical systems must face the environmental, economic, and social challenges originating from the dominant development models. Spargaaren and his co-authors propose an integration of transition theory and practice theory. They empirically analyse the changes that affect the local contexts of production and consumption of energy, food and fuels, among other resources, over time (Spaargaren et al., 2013; Spaargaren et al., 2012; Spaargaren & Mol, 2013; Naus et al., 2014). In this way, they aim to gain an understanding of the systemic process of transition towards new sustainable organisational models, as a result of the actors' agency, embedded as practitioners in the practices of daily life (Spargaaren et al., 2016). By proposing the integration of these two theoretical bodies, the scholars explicitly discuss some crucial issues for the ongoing goal of practice theory to account for phenomena the latter has been criticized as neglecting, such as large-scale phenomena, power effects, and the multifaceted emotional and experiential dimensions of practices. A crucial meeting ground for both theoretical approaches is the attention paid to understanding social change as the product of transformations taking place over time and affecting the practices and phenomena under study.

At least apparently, the ontological assumptions underlying the two sets of theories seem hardly compatible: a flat ontology for practice theory and a multi-level perspective for transition theory. According to flat ontology, the 'social' consists of a plenum of connected and/or overlapping practices that leaves no room for entities of a different nature (Schatzki, 2016; Schatzki, 2002). Transition theory, on the other hand, believes that the "social" is made up of three different kinds of social change dynamics (macro, meso, micro) that imply different forms of agency from diverse types of subjects. However, in their effort to show the coherence between the two theoretical-analytical frameworks, Spaargaren and colleagues find promising common ground between the two approaches to this issue. Referring explicitly to the seminal essay by Randall Collins (1981) *On the Microfoundations of Macrosociology*, they argue that the difference between micro and macro practice is a matter of scale, a case of extensiveness across time and space (Lamers et al., 2016, p. 234).

Another area in which practice theory has been explored is media studies, where this perspective has been adopted especially to disentangle the increasingly complex relationship between media consumption and digital technologies. Nick Couldry, who made a crucial contribution by intersecting media research and a distinctive form of practice-based perspective, has led this stream of research (Couldry, 2004 & 2012). Departing directly from Wittgenstein, Couldry outlined an approach to media that "frames its questions by reference, not to media considered as objects, texts, apparatuses of perception or production processes, but to what people are doing in relation to media in the contexts in which they act" (Couldry 2012, p. 35). On the basis of this work, other scholars embraced the study of media practices in different directions and in relation to a wide array of media sectors, including newspapers, gaming and ICT (Bräuchler & Postill, 2010), political media activism (Mattoni & Treré, 2014), forms of media resistance (Woodstook, 2014), and the revival of retro and vintage media (Magaudda & Minniti, 2019).

While these approaches are a more or less direct derivation of the work of Schatzky and Reckwitz, we can also address the existence of other traditions distinctively characterised by the notion of practice that, in some ways, are parallel to the practice theory approach developed by Shove and colleagues. Without any presumption of completeness, we can identify at least three major streams of research in which the notion of practice has played an important role and whose evolution has been in some way independent from the main genealogy previously addressed.

A first notable tradition is science and technology studies (STS), in which the notion of practice has been, without question, a core departure of the whole field since the early 1980s, especially at the beginning of "laboratory studies" (Latour & Woolgar, 1979; Knorr-Cetina, 1981). In the evolution of the STS field, the role of technoscience has in particular been addressed by looking at the crucial role of social and material practices, up to the point that, as John Law (2017, p. 31) argued, the primary standpoint for understanding the field is that "STS attends to practices". However, quite paradoxically, while there has been wide convergence on the study of situated practices connected to science and technology, the notion of practice has only sporadically been put explicitly at the centre of the theoretical frames adopted. There is generally the case, with few exceptions, including the work of Andrew Pickering (1992 & 1995) or Annamarie Mol, who departed from a philosophical standpoint for which "ontology is not given in the order of things, but that, instead, *ontologies* are brought into being, sustained, or allowed to wither

away in common, day-to-day, sociomaterial practices” (Mol, 2002, p. 6).

Another relevant field in which practice-based studies have been adopted as a crucial topic is organisation and work. As outlined by Corradi et al. (2010) and then further elaborated by Nicolini (2012), in this sector, the notion of practice has been extensively used both directly and indirectly. Among the more focussed traditions, it is possible to distinguish between several streams, which include the study of learning phenomena as situated practices (Lave & Wenger, 1991; Gherardi, 2000; Bruni et al., 2004), the study of technology as practice (Orlikowski, 1992 & 2007; Suchman et al., 1999), and the study of strategy as practice (Whittington, 1996).

Finally, another stream is represented by the Bourdieusian use of the notion of practice. Bourdieu’s theory about practice (Bourdieu, 1977; Bourdieu & Wacquant, 1992) has made a crucial contribution to opening up the debate on practice. As noted by Warde (2004), however, in Bourdieu’s work the notion of being proactive has remained quite underdeveloped compared with those of habitus and field. Nonetheless, the emergence of a practice theory favoured a revival of the use of the notion of practice among more orthodox Bourdieusian scholars.

“Practice” is used to define systems of activity, such as martial arts (Gaudin, 2009) or “*musique d’harmonie*” (Dubois et al., 2010), which exist as a product of practitioners’ doings and sayings. It is also used to recognize the role of the doings of different types of actors (institutional, public, private, individual and collective) operating within socio-technical systems built around complex material infrastructures, such as urban water systems (Lorrain & Poupeau, 2014). Familiarity, most of the time implicit, with the central strand of the theory of practice is evident. Above all, the overlaps concern the importance attributed to the bodily components of the agents’ actions as well as to the routine character of the forms of action, predictable and reproducible, that make the practices exist (de Fornel & Ogien, 2011). However, what distinguishes Bourdieusian studies is the still close connection with the French scholar’s theory of habitus and field. As illustrated in *Outline of a Theory of Practice* (Bourdieu, 1977), the practice exists as a predictable system of actions, resulting from the agents’ habitus more than from their deliberations. The agency that informs the practice is inscribed in the field’s material conditions in which the latter takes place.

Compared to the most recent strand of the theory of practice, those who move within the Bourdieusian approach are more sensitive to recording the role played by socio-structural variables, such as the social class to which the agents belong, the geographical and social contexts of life, and the objectified structure of social relations between social actors. From an analytical point of view, the advantage of this approach is that the reduced space for individual deliberation (*ibidem*) is the product of the pragmatic impact of material and bodily components and of the objectified social relationships between agents, with the acknowledgment of the consequent effects of stratification in terms of both status and power.

3 The Articles Composing the Symposium

The multiple contaminations that this Symposium traces are placed on this composite background. Each Symposium’s essay offers a specific perspective on practice theories by focusing on a distinctive conceptual dimension and by articulating these conceptual advances in relation to specific empirical fields. More specifically, the Symposium starts with two articles that open innovative patterns of contamination of practice theory and deal with two topics that have been rarely addressed through practice theories: the world of fashion and youth subcultures.

The opening article by Paolo Volonté (2019) adopts a practice-based approach to study fashion modelling. More specifically, the author considers two particular cases related to fashion modelling — the embodiment of the thin ideal by models and their peculiar style of walking on the runway — empirically relying on existing research from fashion studies. In relation to the thin ideal’s embodiment, Volonté highlights that models’ thinness is somewhat related to the elements of the practices inherent in the fashion system. In relation to models’ walking, his articulation of practice theory outlines that this activity directly concerns how fashion’s constraints are embodied in a bodily practice. By presenting these two cases related to fashion, Volonté shows that the fashion world can be fruitfully understood under the lens of practice by looking at issues related to professional skills, the materiality of catwalking, and the shared meanings attributed to individual performances in the fashion world.

The second article of the Symposium, by Simone Tosoni (2019), explores another quite unusual topic for practice theories, namely youth subcultures. While subcultural studies regularly focus on cultural practices, in this field most scholars adopt the notion of “practices” without any solid work on conceptualization, thus assuming practices as a taken-for-granted notion. An example of this is the use of the notion of “signifying practice” adopted in the seminal work on subcultures by Dick Hebdige (1979). Hence, Tosoni considers the case of a distinctive subculture in Milan in the 1980s, the goth (also defined as “dark”) subculture, adopting in his analysis a practice-based approach mixed with the notion of *enactment* elaborated by STS scholar John Law. Departing from this theoretical milieu, the author addresses the logics of variation within the dark subculture based on different recurring sets of practices and outlines three distinctive ways in which the goth subculture is enacted: the “activist” enactment, the “music club” enactment and the “loner” enactment. In this way, Tosoni also contributes to the debate on subcultures, presenting an innovative methodological strategy to address the plurality of identities that can be included in the same subculture.

The subsequent three articles open up the contamination of practice theories not only in thematic terms but also through a distinctive focus on novel theoretical connections that practice theories could establish with other theoretical approaches. The article by Magaudda and Piccioni (2019) further develops a theoretical contamination already addressed in Shove et al. (2019), that involving *infrastructure studies*, adding novel insights on the intersection between practices and infrastructure in relation to both the topic addressed and the literature considered. Indeed, the authors consider the use of digital media technologies and, more specifically, practices related to smartphones. Theoretically, Magaudda and Piccioni further explore the connection between practice theory and the way infrastructure studies have been adopted in a distinctive way by media scholars (e.g., Parks & Starosielski, 2015); on an empirical ground, the authors present a qualitative research on young smartphone users, introducing the notion of *infrastructural disclosure* as a methodological strategy to make visible the infrastructural implications characterising smartphone practices. More specifically, Magaudda and Piccioni address five main infrastructural dimensions of smartphone use, namely electricity, radio signal, data, operative systems and platforms, hence outlining how a focus on these infrastructural issues could foster our understanding of people’s relationship with these digital devices.

The article by Mora, Noia and Turrini (2019) discloses a previously unexplored theoretical path of the interconnection of practice theories, linking them to the *circuit of culture* elaborated in the field of cultural studies in the late 1990s by Du Guy and colleagues (1997). Assuming that practice theory and the circuit of culture are pertinent to different theoretical traditions, the paper presents an early attempt to compare these two frameworks and outline the ways in which they are compatible as well as the distinctive benefits each could bring to help gain an understanding of specific phenomena related to material culture. To complete this comparison and integration, the authors adopt the strategy of applying both frameworks to two case studies: the first is related to the development of a new technological artefact, a haptic interface, and the second concerns a specific kind of agricultural cultivation. The resulting comparison gives Mora, Noia and Turrini the opportunity to highlight the advantages of the two approaches and to discuss the point up to which these two frameworks can be integrated.

The article by Mattozzi (2019) engages in an epistemological and methodological reflection to probe the view of practices as cycles of disposition and unfoldings that the author considers synonymous with virtualities and actualizations, and to show how such a view allows not only the consideration of artefacts but also accounting for their contribution to the unfolding of practices.

A specific practice explored as the empirical ground for exemplification is related to squeezing oranges in a sink using Juicy Salif, the squeezer designed by Philip Stark and criticized for its malfunction. On the one hand, the article investigates the role of dispositions–virtualities in past and present approaches to practices. On the other, it recovers the disused Actor-Network Theory’s notion of “script” as a way to describe–analyse artefacts’ dispositions or virtualities and thus account for their contribution to practices. Finally, Mattozzi outlines the advantages provided by studying practices under the lens of a “distributed structuralism”, as done with the Actor-Network Theory.

The successive four articles develop other patterns of contamination of practice theories in the direction of other fields, objects and issues. An article by Stefano Crabu (2019) focuses on professional practices in the field of medicine. The aim of the paper is to enlarge the focus of practice-based studies

in the direction of learning processes, drawing on broad ethnographic research carried out within two major Italian organisations operating in cancer care and research. In doing this, the author advances a distinctive contamination between practice theory, organisational studies, and the study of biomedical and health sciences. More specifically, Crabu's work considers an often-neglected issue, namely how practitioners negotiate their role to be able to act as competent agents within a complex context. In sum, the article contributes to the broader topic of the Symposium by showing how a practice-based approach to learning may offer new strategies for understanding biomedicine and for addressing how expert knowledge is produced and shared among diverse professional settings.

Moving to a completely different subject, Lorenzo Domaneschi's article (2019) deals with a common topic among practice theory practitioners, namely practices related to the preparation of food. More specifically, the paper outlines the evolution of a so-called "practice turn" in contemporary food studies by means of a comprehensive critical review of research on food culture that has taken on a practice-based approach. In doing so, Domaneschi highlights the relevance of the integration of a more robust practice-based perspective to the social sciences of food. To clarify his point more effectively, the author presents an analysis of professional cooking practices, outlining the role of improvisation in the structure of cooking practices. Thus, he adopts a practice theory perspective to unfold the performative nature of practices commonly considered ordinary and repetitive.

Mario de Benedittis's article (2019) is focused on the same subject and explores the sector of wine tasting using the theoretical framework of theories of practice to examine expert wine tasting practices. Relying on empirical research concerning the production, distribution and commercialization of wine in Italy, de Benedittis addresses the constructing of expert tasting practices, connecting them with the Bourdeusian notion of *field*, thus considering how tasting practices are in some way related to potential field effects (Bourdieu & Wacquant, 1992). Hence, among the author's contributions is the consideration that it is important to consider practitioners' habitus and, more generally, the social trajectories characterising their relationship to the practice of wine tasting.

Last but not least, the article by Paolo Giardullo (2019) considers a crucial dimension for contemporary social change, represented by the relationship between practices and the environmental crisis. The author takes advantage of the path already opened by the focus on practices previously advanced in environmental sociology and sustainable consumption. By adopting a layered methodology that includes content analysis of media releases and field-notes from a self-ethnography, Giardullo focuses on a reverse vending machine, which is a machine aimed at managing a reward system for recycling plastic bottles. He thus looks to the reconfigurative power of this system to transform practices related to domestic waste management. With his analyses, the author outlines how a technical system can actively promote a change in ordinary practices connected with the practice of recycling.

In short, this Symposium argues that there is the potential for further expansion and contamination of practice theory, both in terms of the topics addressed and connections with different theoretical approaches. Taken together, we hope that the many contaminations based on practice theory will open up new avenues to think creatively in relation to different realms of social life.

References

- Bourdieu, P. (1977). *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bourdieu, P., & Wacquant, L.J. (1992). *An Invitation to Reflexive Sociology*. Chicago: University of Chicago Press.
- Bräuchler, B., & Postill, J. (Eds.). (2010). *Theorising Media and Practice*. Oxford: Berghahn Books.
- Bruni, A., Gherardi, S., & Poggio, B. (2004). Doing Gender, Doing Entrepreneurship: An Ethnographic Account of Intertwined Practices. *Gender, Work & Organization*, 11(4), 406–429. <https://doi.org/10.1111/j.1468-0432.2004.00240.x>
- Collins, R. (1981). On the Microfoundations of Macrosociology. *American Journal of Sociology*, 86(5), 984–1014. <https://doi.org/10.1086/227351>

- Corradi, G., Gherardi, S., & Verzelloni, L. (2010). Through the Practice Lens: Where Is the Bandwagon of Practice-Based Studies Heading?. *Management learning*, 41(3), 265–283. <https://doi.org/10.1177/1350507609356938>
- Couldry, N. (2004). Theorising Media as Practice. *Social Semiotics*, 14(2), 115–132. <https://doi.org/10.1080/1035033042000238295>
- Couldry, N. (2012). *Media, Society, World: Social Theory and Digital Media Practice*. Cambridge: Polity Press.
- Crabu, S. (2019). Learning and Shaping Expert Knowledges: The Case of Precision Medicine. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9405>
- de Benedittis, M. (2019). Expert Wine Tasting as a Social Practice: An Enactive Ethnography. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9481>
- de Fornel, M., & Ogien, A. (Eds.). (2011). *Bourdieu, théoricien de la pratique*. Paris: Éditions de l'EHESS.
- du Guy, P., Hall, S., Janes, L., Mackay, H., & Negus, K. (1997). *Doing Cultural Studies: The Story of the Sony Walkman*. Thousand Oaks: Sage.
- Domaneschi, L. (2019). The Sociomateriality of Cooking. The Practice Turn in Contemporary Food Studies. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9477>
- Dubois, V., Méon, J.-M., & Pierru, E. (2010). Quand le goût ne fait pas la pratique. Les musiciens amateurs des orchestres d'harmonie. *Actes de la recherche en sciences sociales*, 181-182, 106–125. <https://doi.org/10.3917/arss.181.0106>
- Gaudin, B. (2009). La codification des pratiques martiales. Une approche socio-historique. *Actes de la recherche en sciences sociales*, 179, 4–31. <https://doi.org/10.3917/arss.179.0004>
- Gherardi, S. (2000). Practice-Based Theorizing on Learning and Knowing in Organizations. *Organization*, 7(2), 211–223. <https://doi.org/10.1177/135050840072001>
- Giardullo, P. (2019). Automating Green Practices? The Analysis of Reverse Vending Machines as a Re-contamination of Theories of Practices. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9424>
- Giddens, A. (1984). *The Construction of Society*. Cambridge: Polity Press.
- Gram-Hanssen, K. (2010). Standby Consumption in Households Analyzed with a Practice Theory Approach. *Journal of Industrial Ecology*, 14(1), 150–165. <https://doi.org/10.1111/j.1530-9290.2009.00194.x>
- Hand, M. (2012). *Ubiquitous Photography*. Cambridge: Polity.
- Hebdige, D. (1979). *Subculture: The Meaning of Style*. New York: Methuen.
- Hui, A., Schatzki, T., & Shove, E. (Eds.). (2016). *The Nexus of Practices: Connections, Constellations, Practitioners*. London: Routledge.
- Knorr-Cetina, K. (1981). *The Manufacture of Knowledge: An Essay on the Constructivist and Contextual Nature of Science*. Oxford-New York: Pergamon Press.
- Lamers, M., & Spaargaren, G. (2016). Conclusion: The Relevance of Practice Theory for Researching Social Change. In G. Spaargaren, D. Weenink, & M. Lamers (Eds.), *Practice Theory and Research. Exploring the Dynamics of Social Life* (pp. 229–242). London: Routledge.
- Latour, B., & Woolgar, S. (1979). *Laboratory Life*. Beverly Hills: Sage.

- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Law, J. (2017). STS as Method. In U. Felt, R. Fouché, C.A. Miller, & L. Smith-Doerr (Eds.), *The Handbook of Science and Technology Studies* (pp. 31–58). Cambridge: MIT Press.
- Lorrain, D., & Poupeau, F. (2014). Ce que font les protagonistes de l'eau. Une approche combinatoire d'un système sociotechnique. *Actes de la recherche en sciences sociales*, 203, 4–15. <https://doi.org/10.3917/arss.203.0004>
- Magaudda, P. (2011). When Materiality “Bites Back”: Digital Music Consumption Practices in the Age of Dematerialization. *Journal of Consumer Culture*, 11(1), 15–36. <https://doi.org/10.1177/1469540510390499>
- Magaudda, P., & Minniti, S. (2019). Retromedia-in-Practice: A Practice Theory Approach for Rethinking Old and New Media Technologies. *Convergence*, 25(4), 673–693. <https://doi.org/10.1177/1354856519842805>
- Magaudda, P., & Piccioni, T. (2019). Practice Theory and Media Infrastructures: “Infrastructural Disclosures” in Smartphone Use. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9469>
- Marquard, J., Raven, R. & Truffer, B. (2012). Sustainability Transitions: An Emerging Field of Research and Its Prospects. *Research Policy*, 41, 955–967. <https://doi.org/10.1016/j.respol.2012.02.013>
- Mattoni, A., & Treré, E. (2014). Media Practices, Mediation Processes, and Mediatization in the Study of Social Movements. *Communication Theory*, 24(3), 252–271. <https://doi.org/10.1111/comt.12038>
- Mattozzi, A. (2019). Cycles of *Dispositions-Unfoldings*. A Retro-ANT View of Practices. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9483>
- Mol, A. (2002). *The Body Multiple: Ontology in Medical Practice*. Durham, North Carolina: Duke University Press.
- Mora, E., Noia, E., Turrini, V. (2019). Practice Theories and the “Circuit of Culture”: Integrating Approaches for Studying Material Culture. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9531>
- Naus J., Spaargaren G., van Vliet B.J.M., & van der Horst H.M. (2014). Smart Grids, Information Flows and Emerging Domestic Energy Practices. *Energy Policy*, 68, 436–446. <https://doi.org/10.1016/j.enpol.2014.01.038>
- Nicolini, D. (2012). *Practice Theory, Work, and Organization: An Introduction*. Oxford: Oxford University Press.
- Orlikowski, W.J. (1992). The Duality of Technology: Rethinking the Concept of Technology in Organizations. *Organization Science*, 3(3), 398–427. <https://doi.org/10.1287/orsc.3.3.398>
- Orlikowski, W.J. (2007). Sociomaterial Practices: Exploring Technology at Work. *Organization Studies*, 28(9), 1435–1448. <https://doi.org/10.1177/0170840607081138>
- Parks, L., & Starosielski, N. (Eds.). (2015). *Signal Traffic: Critical Studies of Media Infrastructures*. Champaign: University of Illinois Press.
- Pickering, A. (1995). *The Mangle of Practice*. Chicago: University of Chicago Press.
- Pickering, A. (Ed.). (1992). *Science as Practice and Culture*. Chicago: University of Chicago Press.
- Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243–263. <https://doi.org/10.1177/1368431022225432>

- Sassatelli, R. (2007). *Consumer Culture: History, Theory and Politics*. London: Sage.
- Schatzki, T. (1996). *Social Practices: A Wittgensteinian Approach to Human Activity and the Social*. Cambridge: Cambridge University Press.
- Schatzki, T. (2002). *The Site of the Social. A Philosophical Account of the Constitution of Social Life and Change*. Philadelphia, PA: The University of Pennsylvania Press.
- Schatzki, T. (2016). *Practice Theory as Flat Ontology*. In G. Spaargaren, D. Weenink, & M. Lamers (Eds.), *Practice Theory and Research. Exploring the Dynamics of Social Life* (pp. 28–42). London: Routledge.
- Schatzki, T., Knorr-Cetina, K., & Von Savigny, E. (Eds.). (2001). *The Practice Turn in Contemporary Theory*. London: Routledge.
- Shove, E., & Trentmann, F. (Eds.). (2019). *Infrastructures in Practice: The Dynamics of Demand in Networked Societies*. London: Routledge.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. London: Sage.
- Shove, E., Watson, M., Hand, M., & Ingram, J. (2007). *The Design of Everyday Life*. Oxford: Berg.
- Spaargaren G., & Mol A.P.J. (2013). Carbon Flows, Carbon Markets, and Low-Carbon Lifestyles: Reflecting on the Role of Markets in Climate Governance. *Environmental Politics*, 22(1), 174–193. <https://doi.org/10.1080/09644016.2013.755840>
- Spaargaren G., van Koppen, K., Janssen, A., & Hendrikse, A. (2013). Consumer Responses to the Carbon Labelling of Food: A Real Life Experiment in a Canteen Practice. *Sociologia Ruralis*, 53(4), 432–453. <https://doi.org/10.1111/soru.12009>
- Spaargaren, G. (2011). Theories of Practices: Agency, Technology, and Culture: Exploring the Relevance of Practice Theories for the Governance of Sustainable Consumption Practices in the New World-Order. *Global Environmental Change*, 21(3), 813–822. <https://doi.org/10.1016/j.gloenvcha.2011.03.010>
- Spaargaren, G., Weenink, D., & Lamers, M. (Eds.). (2016). *Practice Theory and Research. Exploring the Dynamics of Social Life*. London: Routledge.
- Spaargaren, G., Oosterveer, P., & Loeber, A. (Eds.). (2012). *Food Practices in Transition; Changing Food Consumption, Retail and Production in the Age of Reflexive Modernity*. London: Routledge.
- Star, S.L., & Bowker, G.C. (2006). How to Infrastructure. In L.A. Lievrouw, & S. Livingstone, *Handbook of New Media* (pp. 230–245). London: Sage.
- Suchman, L., Blomberg, J., Orr, J.E., & Trigg, R. (1999). Reconstructing Technologies as Social Practice. *American Behavioral Scientist*, 43(3), 392–408. <https://doi.org/10.4324/9781315241371-35>
- Tosoni, S. (2019). Dark Enactments in Milan: A Practice-Centred Exploration of an Italian Post-Punk Subculture of the '80s. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9475>
- Volonté, P. (2019). Modelling Practice: The Inertia of Body Ideals in the Fashion System. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9490>
- Warde, A. (2004). *Practice and Field: Revising Bourdieusian Concepts*. Manchester: Centre for Research on Innovation & Competition, The University of Manchester.
- Warde, A. (2005). Consumption and Theories of Practice. *Journal of Consumer Culture*, 5(2), 131–153. <https://doi.org/10.1177/1469540505053090>

- Warde, A. (2017). *Consumption: A Sociological Analysis*. London: Palgrave.
- Whittington, R. (1996). Strategy as Practice. *Long Range Planning*, 29(5), 731–735. [https://doi.org/10.1016/0024-6301\(96\)00068-4](https://doi.org/10.1016/0024-6301(96)00068-4)
- Woodstock, L. (2014). Media Resistance: Opportunities for Practice Theory and New Media Research. *International Journal of Communication*, 8(19), 1983–2001. Retrieved from <https://ijoc.org/index.php/ijoc/article/view/2415/1186>

Paolo Magaudda: FISPPA Department, University of Padova (Italy)

🆔 <https://orcid.org/0000-0003-0830-8299>

✉ paolo.magaudda@unipd.it; 🌐 <http://www.paomag.net>

Paolo Magaudda is Assistant Professor in Sociology of Culture and Communication at the FISPPA Department, University of Padova (Italy), where he is member of the PaSTIS Research Unit (Padova Science Technology & Innovation Studies). The main focus of his work is on the relationship between culture, technology and society, with a specific attention to digital media, consumer culture and music. His most recent books are *A History of Digital Media. An Intermedia and Global Perspective* (with G. Balbi, Routledge, 2018) and *Vite Interconnesse. Pratiche Digitali attraverso Smartphone, App e Piattaforme* (in Italian, with M. Driusian and M. Scarcelli, Meltemi, 2019). He is co-editor-in-chief of the journals *Tecnoscienza. Italian Journal of Science & Technology Studies* (STS Italia) and *Studi Culturali* (Il Mulino).

Emanuela Mora: University Cattolica del Sacro Cuore, Milan (Italy)

🆔 <https://orcid.org/0000-0003-0906-9074>

Emanuela Mora is Professor of Culture and Communication Sociology at the Faculty of Political and Social Sciences of the University Cattolica del Sacro Cuore in Milan. She is director of ModaCult (Centre for the study of fashion and cultural production), and director of the PhD School in Sociology at the same University. She is Co-editor in chief of the *International Journal of Fashion Studies*. Since 2004 she has worked on the theme of sustainable fashion and consumption, both in Italy and abroad. Among her books: *Fare Moda. Esperienze di Produzione e Consumo* (Bruno Mondadori, 2009); *Fashion Tales. Feeding the Imaginary* (with M. Pedroni as eds., Springer, 2017).

Modelling Practice: The Inertia of Body Ideals in the Fashion System

Paolo Volonté*

Submitted: June 5, 2019 – Accepted: December 12, 2019 – Published: December 31, 2019

Abstract

This article addresses practice-based theories with the goal to show that they can contribute substantially to the understanding of fashion modelling and, consequently, of the social phenomenon of fashion in general. Fashion modelling is a key component of the fashion system, and fashion models contribute to the innovation of the clothing landscape in contemporary Western societies much more than assumed by common sense. Yet, some features of fashion modelling, such as the incorporation of the thin ideal and the affected gait of the models' walking on the catwalk, are puzzling if understood in the light of traditional sociological categories. If studied with the conceptual tools displayed by the practice approach, they appear as striking manifestations of the inertia that bodies, materials, routines, skills and meanings of the practice of fashion impose on its participants.

Keywords: Practice; fashion; fashion modelling; thin ideal; inertia; cultural intermediaries.

1 The Practice of Modelling and Clothing Landscape Transformations

Over the last two centuries, the fashion system has gradually become a leading force in determining clothing habits in Western countries first, then in many parts of the globalized world. In fact, this powerful economic and social system influences nowadays the rules of body communication and presides over changes in our clothing landscape. As it embraces some fundamental mechanisms of social cohesiveness, it has been extensively studied in recent decades, along with the main professions that it includes.

Fashion models, especially female models,¹ are among the most exposed figures in the system. As means of fashion communication, they are by definition public figures: they exist and work mainly on the media stage. Moreover, they practice a profession in some respects prestigious, much desired by many women and especially by the youngest. Since the selection criteria leading to fashion modelling

* Dipartimento di Design, Politecnico di Milano (Italy); ✉ paolo.volonte@polimi.it;  <https://orcid.org/0000-0002-8132-4095>

1. In this article, I will exclusively deal with female modelling.

seem to be based (but we will see that in fact it is not so) on a socially appreciated quality like “beauty,” the professional success of a model is a particularly effective form of social legitimacy.

What is the actual contribution of models to the fashion system? Often models are considered in common discourses little more than self-propelled mannequins, hangers at the disposal of the manipulative art of designers, pattern makers, stylists and photographers (Mears, 2011, p. 182; Entwistle & Wissinger, 2012b, p. 4). But this is overly simplified. In the last two decades, a vast body of studies has focused on the social role of fashion modelling and highlighted that the models’ contribution to the continuous transformation of our cultural landscape is not marginal. I will summarize such body of knowledge in section 3.

However, not everything is clear and well understood in fashion modelling. Some aspects are still surprising or enigmatic. For example, it is not unusual for models to complain about the need to comply with very lean body measurements, those same measurements that have enabled them to conquer a privileged position in the field of fashion. Models feel they have to submit to an external and superior will that determines their physical appearance. However, if we try to determine where such will resides, it escapes the grasp and evaporates into thin air. This depends on the fact that it is not about the decisions of a particular social subject, but the power that a practice inadvertently exerts on all participants. I therefore argue that in order to understand this aspect of fashion modelling, as well as other features of fashion, it is necessary to resort to the concept of social practice.

My goal in this article is to address practice-based theories and show that they can contribute substantially to the understanding of fashion modelling and, consequently, of the social phenomenon of fashion in general. The idea is that by abandoning the points of view focused on human actions — individual or collective — and on social structure, and assuming a perspective based on practice as unit of analysis, the enigmatic features of modelling become more easily intelligible. Joining the practice approach means in this framework, at the core, accepting the idea that certain courses of action in human life are routinized for a community of practitioners. In relation to these courses of action (“practices”) the practitioners themselves are, rather than agents, “carriers” of the practice, interpreters of the routine. Classical sociology (Parsons, 1951, pp. 1–7 and 22–24; Schütz, 1955; Goffman, 1959) has accustomed us to think in terms of mutual expectations of behaviour: social interactions are determined by the expectation of others towards us and by our anticipation of the outcome of our actions (the self-reflected expectation). The practice approach makes it clear that in certain situations also the expectation that the practice itself exercises towards us, what the practice expects from us, is crucial. In stating this, “practice” does not mean the mere sum of other subjects participating in the same course of actions. It also includes the set of material configurations, embodied skills, norms and shared meanings that guide individual performances and ensure that they can be read as interpretations of a consolidated practice. The agent is never completely the subject of his or her practices, because the practices act in him or her through incorporated dispositions, the acquired schemes that inhabit our choices and our behaviours (Bourdieu, 1997, p. 166). As Andreas Reckwitz observes, in practices the individual’s actions, thoughts and desires

are necessary elements and qualities of a practice in which the single individual participates, not qualities of the individual. [...] A practice is thus a routinized way in which bodies are moved, objects are handled, subjects are treated, things are described and the world is understood (2002, p. 250).

Following Davide Nicolini’s suggestion (2012, pp. 8–10), I prefer to refer to a practice “approach,” rather than theory, not only to reiterate that a unitary theory of practices does not exist, as Schatzki (2001, p. 2) already noted, but also to clarify that this perspective can turn useful for our purposes not as a unitary theoretical framework, but as a box of conceptual tools capable of opening up new perspectives on known phenomena. Different authors, such as Andreas Reckwitz (2002), Theodore Schatzki (1996; 2002), Elizabeth Shove (Shove, Pantzar & Watson, 2012; Shove & Trentmann, 2019) and Alan Warde (2005), offer different ways of thinking about social phenomena as expressions of practices in action.

In what follows, after summarizing what scholars have learned about fashion modelling, I will try to read it as a practice, in turn connected with other practices, some dispersed, such as dressing, others integrative, such as the fashion show. I do not aim to expand the body of knowledge we have about fashion

modelling, which is already very broad. My goal is instead to experiment with the application of a specific theoretical approach — that of practice — to a relevant and intriguing social phenomenon such as fashion. The reference to modelling helps to apply the new theoretical approach to concrete situations. I will therefore not present new empirical evidence and research results, except in few cases where this is particularly useful for the argument. Instead, I will refer extensively to the research that other scholars have already made available through their publications. Nevertheless, the discussion should make clear how the practice approach, in addition to already widely used theoretical approaches that span from Foucault to Bourdieu, from feminist theories to the traditional sociology of fashion, can broaden our understanding of fashion by providing new interpretative keys. Thanks to the contribution of the practice approach, some puzzling aspects of fashion modelling should become more easily understandable as outcomes of the dialectic between the inertia of practice and the behavior of its carriers. In this way, I hope to bring some useful elements to the discussion on the heuristic utility of practice theories when applied to cultural processes.

2 The Job of (Female) Fashion Models

Notoriously, a model walks on the catwalk and gets photographed wearing high fashion clothes. Her profession, however, is a bit more complex than that, with regard both to mere professional practices and to the function it performs in the fashion system. The purposes for which the fashion industry recruits models are basically three: fitting clothes in the production process; performing on the catwalk during the fashion show; doing photo shoots, which in turn can be for the production of advertising campaigns (for brands) or fashion editorials (for magazines). Not all models carry out all three activities. However, they are closely related tasks, because the clothes to wear during the fashion show and the shooting are the same, and are of the same size in which the design departments make the patterns for the fitting. They therefore imply that they are worn by the same type of body. This close link constitutes a rigidity for fashion modelling, since it imposes a standard body from which the individual model can hardly distance herself. Moreover, since the design process is extended over time, the models are also required to preserve a considerable stability in terms of shape and size over time. Notoriously, the models' body standard is very high and thin, corresponding to sizes 2–4 (USA), 4–6 (UK), and 36–38 (Italy), with white skin and Caucasian shapes.

Professionally, models are usually freelance and rely on specialized agencies that act as intermediaries with potential customers. Much of their working time is actually devoted to the construction of their public image (through a look book and networking activities) and wasted in endless waits during the customers' castings. Few models earn large sums, while most live on modest income. The average professional life is short, going for the most fortunate from 13/15 years of age to 20/25. High internal competition and the constant need for change by customers produce a rapid turnover that puts many models off the market prematurely. There are also differences between the main sectors in which the model industry is divided. The competition is heaviest and the longevity shortest in the circuit of "editorial" models, that is, those models that are primarily required by the fashion industry because they are characterized not by a formal, standard, familiar beauty, but by an intriguing, imperfect aspect, apt to capture attention. On the other hand, "commercial" models, mainly used for consumer goods advertising due to their regular shapes and reassuring appearance, experience less competition and greater longevity.

3 The Role of Models in the Fashion System

Before delving into how the practice approach can contribute to the study of fashion modelling, it may be useful to summarize some major acquisitions of fashion studies on this profession. Although produced within other theoretical perspectives, they facilitate the shift to the practice approach putting aside some common sense ideas about modelling and establishing an integrated view of the fashion system.

Fashion modelling has been extensively studied in recent times, mainly through ethnographic research. Along with intrinsic features (tasks, practices, networks), the function it also plays in the fash-

ion system and, more broadly, in defining the cultural landscape, has been investigated. In particular three researches conducted in parallel during the first decade of the century produced the major results. Joanne Entwistle (2009) first studied fashion modelling as a collective practice aimed at profiting from the fashion industry's need to use human bodies to qualify the goods. Since the quality of models that determines their success is not a somehow measurable "beauty" (not even through the classic measures of breast, waist and hips), but something very ephemeral and changeable like the appearance (the "look"), the model industry has focused on the need to stabilize the characteristics of the glamorous female body and select apt women to represent it. It is therefore a form of "aesthetic economy," an activity aimed at translating certain aesthetic characteristics into economic value. Ashley Mears (2011) described the modelling industry more systematically as a cultural industry, characterized by very high uncertainty when attempting to forecast the demand. Cultural industries normally have this characteristic: that taste has a preponderant weight in determining the value of goods. Since it is very hard to forecast tastes, the cultural industries (including fashion modelling) often follow a production model aimed at reducing uncertainty through a process of gradual selection of a few extremely successful products starting from a plethora of alternative creations (Hirsch, 1972). Finally, Elizabeth Wissinger (2015) focused on the work that all this entails for the models themselves, whose success cannot be separated from a huge effort that images and fashion shows, with their ephemeral and visual character, end up hiding. A work both material and immaterial (Lazzarato, 1996) constitutes the backstage of the outward appearance of the models. Thus, modelling is not limited to the capacity of qualifying industrial goods through visual culture, but actually involves self-commodification and transformation into a brand (Entwistle & Slater, 2012). Working on herself, the model shapes and circulates a certain image of woman, strongly contributing to stabilizing the hegemonic feminine ideal in our society.

Those studies have allowed us to get rid of some assumptions and prejudices about the role of models and acknowledge previously undervalued aspects of their profession. I will focus on two key theses stressed by those jobs (and other similar contributions, such as Czerniawski 2015, Kühl 2015 and Sadre-Orafai 2008).²

First of all, we can abandon the simplistic objectification of the models' beauty. It is a common belief that models are particularly beautiful women, and that their work consists in simply making their body available to fashion professionals. A body received as a gift by Mother Nature. This is misleading. As Ashley Mears effectively observes, the models she interviewed "were not mere lucky winners in some genetic lottery; they were fighters in an ongoing struggle against their bodies" (Mears, 2011, p. 91). The models' beauty is not natural, but naturalized: made apparently natural through a continuous artificial work of construction, revision, adjustment of appearance. Such appearance is what is normally called "look" (Entwistle, 2009, p. 6; Entwistle & Slater, 2012, pp. 24–26; Mears, 2011, p. 5), and is the result — for the models as for all of us — of a continuous work of manipulation on the body, i.e. on physical structure, makeup and clothing, but also on posture, behaviour, body language, consumption, life choices (Wissinger, 2007a and 2007b).

Regarding the physical structure, models must constantly meet the ideal parameters imposed by the fashion system: height, weight, breast, waist and hip measurements. These parameters are very rigid in their regulatory function, but very flexible in the models' daily practice, where it is common to lie about one's own measurements (Mears, 2011, pp. 91–92). In fact, models are continually exposed to the double request to conform to a common standard, and to have something unique that differentiates their look and makes it stand out from that of others. Like athletes and dancers, they use their corporeality as a form of capital (Wacquant, 2004).

On the behavioural side, moreover, models must be able to express a "personality" that gives their look a taste of uniqueness and exceptionality. Modelling implies not only the aesthetic work on the body, but also an emotional work (Hochschild, 1983) that enables them to express an intriguing personality by means of their simple appearance, their look (Wissinger, 2015, pp. 154–156). This concerns both the performance of typical tasks of their job (Mears, 2011, pp. 106–115) and everyday life, which for models in the age of social networks is never separable from work (Wissinger, 2015, pp. 162–184).

2. For an overall picture of the debate consider also: Czerniawski (2011); Entwistle & Wissinger (2006; 2012); Godart & Mears (2008); Mears (2008; 2012); Mears & Finlay (2005); Soley-Beltran (2004); Wissinger (2007a; 2007b; 2012; 2013).

With regard to this first aspect, it should be added that the definition of the look is carried out not only by the model concerned, but by the entire professional network engaged in the production of fashion imaginary. What the model embodies and transmits while appearing in a photo shoot is not her quality, nor her individual creation, but it is something that germinates by means of a multiplicity of processes involving different actors (Entwistle, 2009, p. 58). In other words: the aesthetic value of the model is neither natural nor designed. It is the result of the continuous negotiation of a community about her appearance, fashion trends, and the collective imaginary of a female body. Modelling agencies, for example, create a framework through their catalogues and categorizations (editorial, commercial, curvy). With their supervisory work, they then push the real models to adapt to that framework, conditioning their consumption (how to dress, which places to frequent, which networks to nurture) and, consequently, fostering the construction of a suitable *habitus*. Furthermore, the models' look materializes in a look book where some of their photographs are collected. Those photographs were taken during photo shoots directed by stylists with their own perception of the aesthetic value of the model, accessorized with clothing created by designers who followed their own ideas of fashion and femininity, taken by photographers in search of the best photographic output. The model's look is therefore the result of the work of a multiplicity of professionals, none of which aims at defining the model's look. When she meets a possible client (either through the look book or in person at a go-see or at a casting), she enters again into a complex social process of defining the aesthetic value. In fact, the client usually *does not know* what look s/he is looking for (Mears, 2011, pp. 123–127). What distinguishes a look from mere beauty is its ineffability. The look qualifies for “that certain something” that you never succeed in making explicit. This means that also the client's selection of the model is very random and depends largely on factors that are not aesthetic in nature, such as a dense network of relationships and conversations among the fashion system protagonists, good for aligning opinions and tastes (Mears, 2011, p. 10), and reputational dynamics, according to which the models gain aesthetic value through the reputation of the subjects who credited them (Entwistle & Wissinger, 2006).

The second fallacy about models shelved by empirical research is the idea that they are more similar to fashion industry tools than professionals. Compared to dummies, which they replaced starting from the end of the Nineteenth century, they would only add the mobility of the real body, and therefore the possibility of studying the behaviour of clothes on a moving body. The underlying idea is that to modelling nothing is needed but a nice appearance and a good dose of patience: the designer, the pattern maker, the stylist and the photographer will think about everything else. Again, things are different, actually. I have already mentioned the importance of the model's “personality” as an ingredient of the look. Now I add that the personality of the model, too, is a fundamental ingredient in the production of fashion images, and therefore in the processes of clothing innovation in general. Doreen Small, former vice president of the Ford modelling agency, in describing the qualities displayed by the best models, said:

They understand the concepts, they can create amazing photographs, they project character, they project life [...]. I mean, they're genetic anomalies [...]. But really, really good models are really able to work it (quoted in Entwistle & Wissinger, 2012a, p. 182).

The most important quality of a model is to actively use her appearance and the related accessories in order to produce relevant meanings. The ethnographic observation of photo shoots shows that they are intrinsically collective activities, in which all participants contribute interactively to the production of the final result. The stylists I interviewed for a research dedicated to them have often emphasized the importance of the model and her look in the creation of fashion services.³ For example, one of them told me:

The model is important. The model accomplishes the editorial. Truly, the more models feel beautiful the more they are happy to do the shooting. [...] Anyway they must feel liked a lot by the photographer, and also by the stylist, and then it depends: some of them, like the

3. The investigation, which began in 2013 and is still ongoing, aims at exploring social and cultural features of fashion styling in Milan using a non-standard methodology based primarily on in-depth interviews, follow-up interviews and ethnographic observation. The main results are going to be published in Volonté (forthcoming 2020).

English ones – as for me, I always consider them the best ones, the smartest, most intelligent, having something extra, it is apparent, there is no question. Those ten that are at the top, there is a reason if they are there. [Of course] because they have a certain agent, but [also] because they have a certain mind. When there is no mind it is immediately clear, nothing comes out. I mean, there are “flat” women who don’t draw anything out of the picture (Female, 49, interviewed 14 November 2013).

If those who work with models have this kind of attitude, the equation of models with hangers, although justified by their origins (Evans, 2003), does not reflect the role that they play today in the fashion system. Therefore, scholars include them among the figures of cultural intermediaries who contribute to the co-production and circulation of clothing culture in our society (Maynard, 1999; Wissinger, 2012). Models belong to the leading fashion tastemakers. Not only the way in which they “interpret” the outfits on the catwalk or during photo shoots influences the clothing landscape, but also what they wear in everyday life, the places they attend, their cultural diet (music, food) enter the processes of negotiation and stabilization of fashions and trends. Like other figures of cultural intermediaries, models contribute to formulating culture in a capitalist market context. Of course, this is especially true for those models who have reached the status of celebrities. But as shown in the excerpt quoted above, due to the role they play in the fashion industry, all models have the opportunity to leave their mark on the creation and circulation of fashion imaginary. At the beginning of their careers they receive a strong socialization to the system, and they are instructed on how to shape and take care of their look. But later on, if they are not able to make their own original contribution to the mediation of meanings, if they disappear into the crowd of faces that populate the walls of modelling agencies, they will in fact not count for anything in the process of clothing innovation and therefore will be quickly shelved from the system, replaced by other models more skilled in the intermediation of taste (Wissinger, 2012, p. 161).

4 Shortcomings

If we look back at the three main activities of the models described above (photo shoot, fashion show, fitting), it is clear that this profession is key to the processes of generation of “clothing possibilities” in two complementary ways: in determining the garments that will be offered on the market, and in creating the fashion images that will circulate in the cultural landscape. Models are the bodies of fashion both in the circumstance of its production and in that of its representation. Entwistle and Slater (2012: 16) are therefore right in arguing that the habit of contrasting real bodies and represented bodies to describe the imagery of fashion is inadequate to understand what really happens. The model’s body is an element of mediation and unification of the fashion system, both because it is a constant crossing the whole process, and because it is a malleable constant, adaptable — to a certain extent — to changes in taste. In fact, it is constantly manipulated to stay in line with the changing aesthetic demands of the fashion world. In other words, the models find themselves involved in a loop in which on the one hand they define the features of the ideal female body and the standards of recognized beauty, and on the other hand they are subjected to the same ideal and must constantly work to adapt to it. This loop is difficult to explain through approaches that leverage individual agency or the constraints imposed by the social structure and the economic system, and requires a change of approach to be understood. This is where the use of the practice approach proves fruitful.

In particular, I will focus on two aspects of fashion modelling that the approach of practices can help to explain more accurately. The first issue concerns the fact that for a century now, and particularly in the last fifty years, the ideal of female body embodied by fashion models has been characterised by radical thinness. The sizes of the models are usually placed in the lower range of the adult size system (36–38 in Italy), while the prevalent sizes in population are decidedly larger (44–46). The most common explanations of this phenomenon, which refer to the aspirational character of fashion (fashion should offer to the ordinary woman a “dream,” misleading her into believing to be part of a narrative of beauty and glamour that in truth does not belong to her), are not convincing, if only because the fashion industry gives up in this way a significant portion of business. The second issue concerns a specific skill of models: walking the catwalk. Walking on the catwalk is an aspect of modelling where the discipline of the body

stands out. At an accustomed look, it appears natural and elegant. But if you look at the fashion shows with a detached gaze, for example by analysing them in slow motion on a site like FashionWeekOnline (<https://fashionweekonline.com>), it will not be difficult to notice in many cases a particularly affected gait, with the feet forcedly aligned along a single straight line, the knees unnaturally stretched in full, the hips excessively wiggling. Also in this case, the practice approach can help us understand a seemingly arbitrary and irrational form of body regulation, thus integrating the insights provided by other theories.

5 Inertia and Performance: Fashion Modelling through the Lens of the Practice Approach

Something that the practice approach can do very well is to understand the inertia of social behaviour. This has often been considered a limitation of practice theories. They have been accused of focusing too much on inertia and failing to adequately explain social change (Turner, 1994, pp. 78–100). Proponents of the practice approach have taken the accusation seriously and tried to argue (Schatzki, 2002, pp. 189–264; Warde, 2014; Hui, Schatzki, & Shove, 2017). Here, however, I am not interested in discussing whether the practice approach enables us to explain change, but to rely on the fact that it explains inertia very well. Inertia does not mean immobility; rather, it derives from the bond that every new action necessarily has with an array of actions, relationships and objects that pre-exist it. This bond acts in two main ways. It does so in the form of routines, habits, and conventions produced by reciprocal expectations of behaviour within the community of practice — what Barry Barnes describes in terms of “alignment” (Barnes, 2001, p. 25) and Joseph Rouse in terms of “mutual accountability” (Rouse 2007, p. 669). Or it acts in the form of embodied experience, a system of durable and transposable dispositions that generate new actions conform to “correct” practices, therefore reflecting the weight of the past on the individual him/herself (Bourdieu, 1980, pp. 87–91).

Moving the unit of analysis from the subjects that act (individuals and organizations) and from social facts (institutions) to practices enables us to understand not only why individuals normally find it difficult to deviate from the norm, fashion or habit, but also why they usually do not want to do it at all. Each practice is characterized at any time by a set of established understandings, procedures and objectives (Warde, 2005, p. 140). What needs to be done, how to do it and why are all aspects dictated by the practice, concerns that the agent has acquired in the course of his or her trajectory, while learning to practice it. There is no need to set rules that should be explicitly learned. Moreover, a practice incorporates in those who practice it ways of doing and thinking that, as incorporated, appear obvious, natural. This is particularly clear in the case of sports, as they channel the behaviour of sportsmen towards routines and standards. No skier who is even remotely experienced has any doubts about what to do when s/he goes skiing (Nicolini & Monteiro, 2016, p. 116). Where to go, how to dress, how to move, what to talk about are all aspects that come naturally even if they have nothing “natural.” This is possible because the practice has arranged the agent to act in a manner consistent with the practice itself, and this in various ways. To name just the most obvious ones, it has arranged the agent by incorporating in him or her a habitus, that is, orienting the body towards the “correct” practice and predisposing it to respond with the “right,” straight, adequate action to the requests that come from the environment (Bourdieu, 1997, pp. 170–175); it has also arranged the agent by immersing him or her in an environment of artefacts and infrastructures that exercise their agency over him or her, in the sense that they prescribe certain doings, channelling the behaviour towards some standards (Latour, 1992); finally, it has arranged the agent by setting the goals, i.e. determining the objectives to be achieved through practice, objectives that s/he can feel (and in fact usually feels) as his or her own, but which are set by the practice itself (Schatzki, 2002, pp. 80–85).

To summarize, the practices have therefore an inertia derived by the fact that in them individual goals, models and constraints must constantly deal with goals, models and constraints dictated by the practice itself (namely, by the fact of practicing that practice, *not* by the sum of other practitioners’ goals, models and constraints). Since this conflict endangers the possibility of practicing the practice (when individual goals, models and constraints prevail that are too heterogeneous compared to those of the practice, the

individual in fact ceases to practice, and simply does something else), it is not surprising that most times the goals, models and constraints of the practice not only prevail, but shape the individual goals, models and constraints. In other words, and borrowing Bourdieu's terminology (1997), the agent engaged in practice experiences to act in a world that is "taken for granted," that s/he inhabits like a garment or a familiar habitat. This presupposes agreement between the dispositions of the agent and the expectations immanent in the world. In general terms, it implies that the social order inscribes itself in the bodies in the form of dispositions attuned to the structures of the world, so that the individual knows exactly what needs to be done and when it needs to be done.

6 The Tyranny of Slenderness

The hegemony of the thin ideal in fashion is a valuable example of the power that inertia can acquire in a practice. The use of extremely thin bodies by the fashion industry has often been considered a cause of the tyranny of slenderness in contemporary society (Chernin, 1981; Bordo, 1993; Thesander, 1997). As a matter of fact, at the beginning of this century the use of almost anorexic fashion models has been widely stigmatized for a certain period because it was accused to reinforce the spread of anorexia among girls and young women (see e.g. BBC 2000). Today the discussion has shifted toward the issue of diversity and the problems generated by the homologation of the imagery and the discrimination of fat bodies caused by a media system (TV, cinema, advertising, women's magazines) that tends to represent almost only thin bodies (Wykes & Gunter, 2005). However, more than this is at stake. The tyranny of slenderness cannot be elicited and supported by cultural standards imposed by the media alone, it must be also backed by a powerful force of some kind. Otherwise, it would be hardly explainable why the fashion industry is subject to that tyranny too. Analysing the collections for sale by the major high fashion brands, it turns out that they are rarely offered in (Italian) sizes above 44, very rarely above 46 (more details in Volonté 2019a). And yet, according to statistics on the Body Mass Index (BMI) made available by the World Health Organization (WHO), more than one third of the Italian female population, and up to almost two thirds in some Anglo-Saxon countries, wear currently sizes over 46 (Volonté & Pedroni, 2014). The fashion system seems to voluntarily give up a huge portion of its potential sales. How is this possible? Can a simple cultural trend, a set of values embraced by the media, explain choices that have such an important economic impact?

This paradox, namely, the fact that the fashion industry gives up a significant share of business to remain faithful to the thin ideal, is less puzzling if we conceive the thinness of the female body not just as a cultural value to be pursued by agents within a community, but also as a practice of which women are carriers as well as professionals of the fashion industry. I argued this idea in a previous article (Volonté, 2019b). In fact, if we turn the unit of analysis from the subjects to the practice we discover a viscous system of doings, artefacts, routines and incorporations that channel the way individuals and organizations interpret and carry the practice. It becomes clear that the tyranny of slenderness in fashion is not due to single factors, but to the bundle of things, actions and situations which the practice consists in. It is not necessary, then, to blame, from time to time, the fashion designers' aesthetic choices, the marketing policies of the companies, the imagery conveyed by the media or the aspirational expectations of the consumers. None of these factors, taken in isolation, would reasonably be able to produce fashion's "great renunciation" of the world of fat bodies. Of course, designers "choose" to keep on designing exclusively on underweight bodies, but it is actually the practice of fashion that chooses in them by means of the way it is taught in the fashion schools they attended, the fact that, as a rule, the bodies provided for fitting by the model industry are underweight, the technical limits of the automated size grading systems (which are based on incremental grading concepts no longer functional above size 46), the aspiration of consumers to get or preserve a thin and youthful body, a sales network that displaces the stores that are specialized in plus size mainly in outlying districts and small towns, a fashion press that literally hides fat bodies. The same, of course, can be extended to the choices of those who plan the contents of fashion courses, those who develop the technologies of automated size grading, consumers, retailers and editors. As well as models.

Considered from this point of view, the thinness of fashion models appears differently. Models are not thin because this is an "objective" aspect of female beauty, neither because they follow an aesthetic

law, nor a constraint imposed by market needs, nor a cultural ideal shared by the fashion system. They are so because the practice of fashion modelling has incorporated not only the ideal, but the very fact of slim bodies, the routines of designing on thin bodies, the materiality of samples, and so on. The stimulating research by Ashley Mears (2010) on the reasons for the thinness of fashion models, later incorporated in the fifth chapter of her book *Pricing Beauty* (Mears, 2011), helps us go into more detail: I will rely on her empirical observations to interpret them leveraging the practice approach. Mears observes that the thinness of the models is considered an obvious fact by the professionals of the fashion industry, something taken for granted that does not require explanations. Models incorporate a naturalized vision of female beauty, shared by all those who practice fashion. If, however, they are urged to explain, agents, stylists and editors often attribute the responsibility for such situation to fashion designers: it is the designers who ask for very thin models, because — this is the most widespread rhetorical image — the models must perform the function of hangers. Clothes fit better on tall and thin bodies. The rhetoric of the hanger, however, must not deceive us. I agree that a thin body interferes less than a fat one with the shape of the garment it wears, but if this is the only reason for the thinness of the models I wonder why their average measurements have changed over time. The functional reason cannot be exhaustive. In fact, if designers are asked why they develop their designs in such small sizes, they answer — says Mears (2011, p. 184) — referring not so much to economic or aesthetic reasons, as to tradition: the sample size is the one they have learned to use at school, that of the dummy they use to develop their creations, that of the models made available by the agencies. Overall it must be the same, because in the hectic moments preceding the fashion show there is no time to make adjustments of the clothes on the bodies of models of different sizes.

Based on Howard Becker's (1982) theory of the art worlds, Mears traces all this back to the concept of convention:

As in other art worlds, the accomplishment of fashion looks requires conventions, shared ways of doing things. Conventions are especially important [...] for cultural intermediaries to navigate uncertainty and ambiguity in the production process. Conventions can also make the accomplishment of fashion difficult, should producers ignore them (Mears, 2011, p. 175).

However, if we reflect carefully on her data, we realize that there is much more here than just convention — which is anyway an important aspect of practices. In the field of fashion we meet aims, goals and ideals (the ideal of thinness, the goal of getting and preserving certain body measurements) established by the practice itself, learned and incorporated by the individuals while learning the practice and training in the practice, shared and naturalized by the protagonists of the field even against their own interests. We meet artefacts (clothes, dummies) that have incorporated the rules and routines of the practice into their form, stabilizing them and making them resistant to change thanks to the solidity of materials. And we meet bodies (the models' bodies, in fact) that through a hard and meticulous work have incorporated what the practice was imposing on them and have turned it into a disposition to appear and act appropriately. In addition to these elements, there are also aspects that Mears does not mention or discuss in detail, but which can equally be ascribed to the practice of modelling prior to the choices of individuals. For instance, there are specific doings and body techniques that have to be trained to be accepted in the field, such as the walk on the catwalk that I will discuss in the next section. There are instruction manuals that codify behavioural standards, such as the “how-to” books described by Wissinger (2015, pp. 146–161) that set standards, rules and best practices for those who wish to join the field. There are even moods that the practice prescribes to participants, such as the shame of having put on weight or, in the case of plus-size models, of having lost weight (Czerniawski, 2015, p. 95).

All this forms a bundle of activities that cannot be attributed to the participants' individual or collective choices, but in a sense constitute an external power that forces the agents:

Ask designers why they book skinny models and they'll reply that that's what the agents are providing. Ask agents why they promote skinny models and they'll reply that that's what the designers want. And around we go. As a structural organization system, the modeling market appears to be an external force to bookers and clients (Mears, 2011, p. 188; see also Czerniawski, 2015, p. 63).

However, this external force, which is external not only to bookers and clients, but also to models, is not extraneous and coercive towards them, but is accomplished through the performances of the participants in the practice. The agents carry the practice and by practicing it enable the practice to establish itself. Fashion professionals and consumers, including models, enable the practice of thinness to become a standard in our cultural landscape, so that the tyranny of slenderness is not perceived as a tyranny at all. The way in which they interpret the thin ideal contributes to perpetuate or modify it.⁴

Considered from the perspective of the practice approach, the paradox of the persistence of the thin ideal in the fashion system, and the role played by models in it, are not puzzling any more. What seemed to be a contradiction from an economic point of view and an irrational behaviour from a cultural point of view, is in fact a consistent expression of the inertia of a widespread practice.

7 Walking the Catwalk

The second feature of modelling that I will address with the support of the tools forged by the practice approach is walking the catwalk. The discipline of the models' body is what elicits interest here, since their walking on the runway goes far beyond having a generic habitus enabling behaviours that are appropriate to the situation and involves the acquisition of a specific technique of the body, similarly to what Mauss (1936) observed about the use of high heels.

As mentioned above, far from being mere natural phenomena, fashion models, as they appear to consumers, are the product of a huge effort, a demanding work that the models themselves, together with many other professionals of the fashion system, exert on their own body, their behaviour, and the images that portray them. This activity of construction of the look has become apparent to the public in the last decades thanks to the proliferation of television programs like *America's Next Top Model* that denaturalize beauty and emphasize the production practices on which it is based (Sadre-Orafai, 2012). Modelling implies a hard work of disciplining the body to make it fit the expectations of the system. In the initial stages of the career, this is an explicit, physical discipline regulated by awards and punishments. The model who wants to join the agency and be promoted with conviction by the agent has to comply with what he tells her to do about weight, make-up, hair style, clothing and even the identity with which she introduces herself (age, origin, body measures). Thus the appearance of the model is "normalized" in a look compatible with the demands of the system. Afterwards, however, the discipline becomes more and more internalized, based on the surveillance power of the gaze that, as Foucault taught (1975), is able to render the bodies docile and self-disciplined without the need of external constraints. The disciplining and normalizing gaze is not just the gaze of those subjects that are endowed with economic power (agents, clients). It is also internalized by the models, who compare their bodies to one another and anticipate the judgment of others, regulating themselves and learning how to comply with the expectations of the fashion system (Mears, 2011, pp. 98–103).

More specifically, walking the catwalk, too, is a doing learned through physical exercise guided by a reference community. For the fashion system, walking the catwalk is an art that must be trained and that involves, as such, rules of perfection. But for every single model the catwalk walk is the product of hours of apprenticeship according to rules imposed by the system and embodied — literally — step by step (Mears, 2011, pp. 107–108). How does this assimilation of an affected gait take place? How does the reference community manage to perpetuate a body technique chiefly justified by taste issues, which are changing by nature?

Our understanding of this issue improves if we conceive the body technique as a substantial ingredient of the practice of the fashion show. The fashion show is a highly distinctive case of practice. On a general level, it involves various interdependencies among the general layout of the catwalk, the gait of the models, the bodies of the models, the clothes displayed, the conventions of the fashion system with respect to sizes, current fashion trends, social hierarchies internal to the fashion industry and commu-

4. This aspect of the practice approach, which I cannot address here, helps support Entwistle and Slater's (2012) thesis that fashion models, unlike what is claimed by feminist interpretations of the thin ideal (Bordo, 1993; Hesse-Biber, 2007), are not mere tools for the control of female corporeity by a patriarchal capitalist system, but contribute with their own tastemaker activity to its deployment.

nication technologies.⁵ A fashion show implies a set of constraints imposed not by a single entity, for example, an authority, but by the multiplicity of human and non-human stakeholders that constitute a practice. Even authorities (such as the *Chambre Syndicale de la Haute Couture* in Paris and the *Camera Nazionale della Moda Italiana* in Milan), despite their privileged position, are carriers of the practice and must respond to the constraints that the practice imposes.

However, the fashion show is a special kind of practice, in the same way as sports are: not only does it provide a know-how dictated by the practice itself, like all other practices (such as walking or dressing), but it also has a number of specific additional features. First of all, it requires a dedicated training: models do not learn how to perform in a fashion show simply by living, as it happens with walking or dressing. Second, it takes place at a particular time clearly demarcated from the rest of the day and in a delimited space with restrained entrance. Furthermore, its performance requires suspension of all or almost all other practices of the same kind: one either walks the catwalk or plays guitar. Finally, it establishes a community of practitioners whose primary social bond consists in the practice itself, not in other interests or affective relationships: models are not necessarily friends or political mates with one another. Such features equate the fashion show to several sports, arts, games and amusement practices that may be considered distinct entities, as suggested by Shove, Pantzar and Watson (2012, p. 7). In fact, they are circumscribed fields of action and demarcated social spheres easily recognizable through some demarcation signs, such as the existence of instruction manuals, dedicated time windows, disputes about standards of excellence, and a specialized equipment (Warde, 2014, p. 291). Using a well-known terminological distinction drawn by Theodore Schatzki — and partially altering its meaning — I shall call entities of this kind “integrative practices” (Schatzki, 1996, p. 98), contrasting them with “dispersed practices” (Schatzki, 1996, p. 91), which are distributed across many domains of human life. While walking is a dispersed practice, walking the catwalk is an integrative one. In the case of integrative practices, according to Schatzki (1996, p. 99), particularly important roles are performed by “explicit rules” (precepts and instructions) and “teleoaffective structures” (ends, beliefs, emotions). In fact, whereas everyday walking does not usually have rules or particular purposes, and does not arouse particular emotions, walking the catwalk involves joining an entity in which rules, goals and emotions are essential.

Also in this case the, empirical material reported by Ashley Mears (2011, pp. 107–110) is very helpful. I will focus especially on the models’ walking on the runway. In a long excerpt from a self-ethnographic diary, the scholar tells her experience of long and frustrating hours of “walking lessons” made up of “odd exercises” “just to ‘isolate’ our hips” or “testing our confidence,” examples to be repeated, practical advice (“take larger steps,” “right shoulder is stiff”), emotional suggestions (“when I lead you, I want you to feel like Cleopatra”; “don’t charge at a man. Come to him. Flirt”). After the account, Mears concludes:

By working on the body, models are producing a new self, not just a physical surface. They are crafting sets of feelings and dispositions as well, what Pierre Bourdieu calls *habitus*. Some models have an easier time than others enlisting this body/self project, but all explained in various terms that learning proper comportment, whether on the runway, at photo shoots, or at castings, comes through physical practice [...]. Learning to be a model is like learning any craft. It requires immersion in practice before moving from a conscious series of steps to a tacit knowledge so deeply ingrained in the body that it feels like second nature (Mears, 2011, p. 108).

Mears does not resort to the practice approach to explain fashion shows, but the elements she calls into question — starting from the concept of habitus — are all signals of the embodiment into a specific kind of body that is required by the practice of the fashion show. Models do not just learn a walking technique, but an integrative practice that contemplates, besides the body technique, a dedicated time (half an hour in preset weeks that occur twice a year), a circumscribed place, a specialized equipment (high heels), structures (the long and narrow catwalk, see Kühl 2015, pp. 78–82), doings (walking between two wings of public keeping the eyes fixed on the wall of photographers piled up at the end of the

5. See, for example, the study on the London Fashion Week by Entwistle and Rocamora (2006), who highlight a number of spatial, bodily and relational features typical of the fashion show practice, the outcome of which is reproduction of the hierarchy established in the fashion industry.

runway), meanings (the thin ideal), etc. The process of incorporating the adequate gait for the catwalk, as described by Mears, discloses the training of an integrative practice that besides the body technique prescribes a set of goals, doings, sayings and feelings that the participant must practice. By working on the body, she states in the excerpt above, “models are producing a new self.” They are crafting “feelings and dispositions” because training the technique of walking the catwalk also involves learning the fundamental affective structures of the fashion show. According to Mears’ observation, by training the gait models learn to feel “confident, sexy, powerful” (Mears, 2011, p. 108), they change the mode in which they inhabit their flesh, and meet the expectations raised by the practice. In a few words, they learn to carry the practice.

Thus, reading the fashion show as an integrative practice enables us to understand the models’ affected gait on the runway not just as a physical technique, a set of movements that are stable because incorporated in body habits, but as the manifestation of a much more complex bundle of forces that support each other in maintaining the practice. The model’s physical movement does not just reproduce an exemplary movement, but performs a whole practice. This means that the specific physical movement is not linked uniquely to the contingent bodily dispositions of the model, that is, to the fact that she has trained and incorporated that particular technique. The dispositions are in turn predisposed by the combined strength of all the elements that make up the practice: place, structures, equipment, doings, sayings, meanings, etc. The specific physical movement is linked to the model’s bodily dispositions as far as these are attuned to the physical and mental dispositions of all other human and non-human actors who participate in the practice.

8 Conclusions

I have argued that applying the practice approach to the professional and social figure of the fashion model enables a more convincing explanation of some phenomena that are otherwise puzzling. I have supported this statement with the discussion of two particular examples related to fashion modelling: the embodiment of the thin ideal by models and the peculiarity of their walking on the runway. In the first case, the practice approach makes it possible to highlight that the models’ thinness does not just meet an irrational and paradoxical ideal, but manifests an inherent character of the fashion system. In the second case, the practice approach encourages us to interpret the unnatural aspect of the models’ walking on the runway as the manifestation of a set of constraints that go far beyond the simple way of walking and concern their belonging to the fashion practice.

More in general, the practice approach allows us to focus on a social force that would otherwise escape the observer’s eye, namely, the power of practice. Some social phenomena cannot be explained through the traditional categories of sociological analysis. For example, the persistence of the ideal of thinness in the fashion system seems contradictory if analyzed on the basis of economic interests, individual beliefs or social structures. But if studied with the conceptual tools displayed by the practice approach, it appears as the striking manifestation of the inertia that bodies, materials, routines, skills and meanings of the practice of fashion impose on its participants. These, in turn, do not perceive such inertia as a constraint because they are the hosts of the practice, actual interpreters of what the practice expects to be done. The great renunciation by fashion of the potential profit coming from fat bodies is not a choice and it is not actually a renunciation, since fat fashion is not a possibility that the fashion practice currently contemplates. Likewise, the curious gait of the models on the runway is not a proof of style, and neither is it the curious movements of tango dancers on the dance floor. In both cases, they are the embodied manifestations of integrative practices, which impose not only certain patterns of movement on their carriers, but a complex amalgam of bodily movements, mental settings, artefacts, norms and everything else that contributes to implement the expectations of the practice towards practitioners.

References

- Barnes, B. (2001). Practice as Collective Action. In T. Schatzki, K. Knorr Cetina, & E. von Savigny (eds.), *The Practice Turn in Contemporary Theory* (pp. 17–28). London & New York: Routledge.
- BBC (2000). Models Link to Teenage Anorexia. *BBC News*, 30 May. <https://bbc.in/2WgBtZ9>. Accessed 23 March 2019.
- Becker, H. (1982). *Art Worlds*. Berkeley: University of California Press.
- Bordo, S. (1993). *Unbearable Weight: Feminism, Western Culture, and the Body*. Berkeley: University of California Press.
- Bourdieu, P. (1980). *Le sens pratique*. Paris: Éditions de Minuit [Eng. Trans: *The Logic of Practice*. Stanford, CA: Stanford University Press, 1990].
- Bourdieu, P. (1997). *Méditations pascaliennes*, Paris: Éditions du Seuil [Eng. Trans: *Pascalian Meditations*. Stanford, CA: Stanford University Press, 2000].
- Chernin, K. (1981). *The Obsession: Reflections on the Tyranny of Slenderness*. New York: Harper & Row.
- Czerniawski, A.M. (2011). Disciplining Corpulence: The Case of Plus-Size Fashion Models. *Journal of Contemporary Ethnography*, 41(2), 127–153. <https://doi.org/10.1177/0891241611413579>
- Czerniawski, A.M. (2015). *Fashioning Fat: Inside Plus-Size Modeling*. New York & London: New York University Press.
- Entwistle, J. (2009). *The Aesthetic Economy of Fashion: Markets and Value in Clothing and Modelling*. Oxford: Berg.
- Entwistle, J., & Rocamora, A. (2006). The Field of Fashion Materialized: A Study of London Fashion Week. *Sociology*, 40(4), 735–751. <https://doi.org/10.1177/0038038506065158>
- Entwistle, J., & Slater, D. (2012). Models as Brands: Critical Thinking about Bodies and Images. In J. Entwistle & E. Wissinger (eds.), *Fashioning Models: Image, Text and Industry* (pp. 15–33). London & New York: Berg.
- Entwistle, J., & Wissinger, E. (2006). Keeping Up Appearances: Aesthetic Labour in the Fashion Modeling Industries of London and New York. *Sociological Review*, 54(4), 774–794. <https://doi.org/10.1111/j.1467-954X.2006.00671.x>
- Entwistle, J., & Wissinger, E. (eds.) (2012a). *Fashioning Models: Image, Text and Industry*. London & New York: Berg.
- Entwistle, J., & Wissinger, E. (2012b). Introduction. In J. Entwistle & E. Wissinger (eds.), *Fashioning Models: Image, Text and Industry* (pp. 1–14). London & New York: Berg.
- Evans, C. (2003). *Fashion at the Edge: Spectacle, Modernity and Deathliness*. New Haven, CT: Yale University Press.
- Foucault, M. (1975). *Surveiller et punir. Naissance de la prison*. Paris: Gallimard. [Eng. Trans: *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books, 1977].
- Godart, F., & Mears, A. (2009). How Do Cultural Producers Make Creative Decisions? Lessons from the Catwalk. *Social Forces*, 88(2), 671–692. <https://doi.org/10.1353/sof.0.0266>
- Goffman, E. (1959). *The Presentation of Self in Everyday Life*. Garden City, NY: Doubleday.
- Hesse-Biber, S. (2007). *The Cult of Thinness*. New York: Oxford University Press.

- Hirsch, P.M. (1972). Processing Fads and Fashions: An Organization-Set Analysis of Cultural Industry Systems. *American Journal of Sociology*, 77(4), 639–659. Retrieved from <https://www.jstor.org/stable/2776751>
- Hochschild, A.R. (1983). *The Managed Heart: Commercialization of Human Feeling*. Berkeley: University of California Press.
- Hui, A., Schatzki, T., & Shove, E. (eds.) (2017). *The Nexus of Practices: Connections, Constellations, Practitioners*. London & New York: Routledge.
- Kühl, A. (2015). *Modenschauen: Die Behauptung des Neuen in der Mode*. Bielefeld: Transcript.
- Latour, B. (1992). Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts. In W.E. Bijker & J. Law (eds.), *Shaping Technology/Building Society: Studies in Sociotechnical Change* (pp. 225–258). Cambridge, MA: The MIT Press.
- Lazzarato, M. (1996). Immaterial Labour. In M. Hardt, P. Virno, S. Buckley, & B. Massumi (eds.), *Radical Thought in Italy: A potential Politics* (pp. 133–147). Minneapolis: University of Minnesota Press.
- Mauss, M. (1936). Les techniques du corps. *Journal de psychologie*, 32(3–4), 4–20. [Eng. Trans: Techniques of the Body. *Economy and Society*, 2(1), 1973].
- Maynard, M. (1999). Living Dolls: The Fashion Model in Australia. *Journal of Popular Culture*, 33(1), 191–205. https://doi.org/10.1111/j.0022-3840.1999.3301_191.x
- Mears, A. (2008). Discipline of the Catwalk: Gender, Power and Uncertainty in Fashion Modeling. *Ethnography*, 9(4), 429–456. <https://doi.org/10.1177/1466138108096985>
- Mears, A. (2010). Size Zero High-End Ethnic: Cultural Production and the Reproduction of Culture in Fashion Modeling. *Poetics*, 38(1), 21–46. <https://doi.org/10.1016/j.poetic.2009.10.002>
- Mears, A. (2011). *Pricing Beauty: The Making of a Fashion Model*. Los Angeles: University of California Press.
- Mears, A. (2012). Made in Japan: Fashion Modelling in Tokyo. In J. Entwistle & E. Wissinger (eds.), *Fashioning Models: Image, Text and Industry* (pp. 134–156). London & New York: Berg.
- Mears, A., & Finlay, W. (2005). Not Just a Paper Doll: How Models Manage Bodily Capital and Why They Perform Emotional Labor. *Journal of Contemporary Ethnography*, 34(3), 314–343. <https://doi.org/10.1177/0891241605274559>
- Nicolini, D. (2012). *Practice Theory, Work, and Organization: An Introduction*. Oxford: Oxford University Press.
- Nicolini, D., & Monteiro, P. (2016). The Practice Approach in Organizational and Management Studies. In A. Langley & H. Tsoukas (eds.), *The SAGE Handbook of Process Organization Studies* (pp. 110–126). London: Sage.
- Parsons, T. (1951). *The Social System*. London: Routledge & Kegan Paul.
- Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243–263. <https://doi.org/10.1177/13684310222225432>
- Rouse, J. (2007). Practice Theory. In S. Turner & M. Risjord (eds.), *Handbook of the Philosophy of Science: Philosophy of Anthropology and Sociology*, vol. 15 (pp. 639–681). Amsterdam: Elsevier.
- Sadre-Orafai, S. (2008). Developing Images: Race, Language and Perception in Fashion-Model Casting. In E. Shinkle (ed.), *Fashion as Photograph: Viewing and Reviewing Images of Fashion* (pp. 141–153). London: I.B. Tauris.

- Sadre-Orafai, S. (2012). The Figure of the Model and Reality TV. In J. Entwistle & E. Wissinger (eds.), *Fashioning Models: Image, Text and Industry* (pp. 119–133). London & New York: Berg.
- Schatzki, T. (1996). *Social Practices: A Wittgensteinian Approach to Human Activity and the Social*. New York & Cambridge: Cambridge University Press.
- Schatzki, T. (2001). Introduction: Practice theory. In T. Schatzki, K. Knorr Cetina & E. von Savigny (eds.), *The Practice Turn in Contemporary Theory* (pp. 1–14). London & New York: Routledge.
- Schatzki, T. (2002). *The Site of the Social: A Philosophical Account of the Constitution of Social Life and Change*. University Park, PA: The Pennsylvania State University Press.
- Schütz, A. (1955). Symbol, Reality and Society. In L. Bryson, L. Finkelstein, H. Hoagland & R. Mac Iver (eds.), *Symbols and Society* (pp. 135–202). New York: Harper.
- Shove, E., & Trentmann, F. (2019). *Infrastructures in Practice: The Dynamics of Demand in Networked Societies*. London & New York: Routledge.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. London: Sage.
- Soley-Beltran, P. (2004). Modelling Femininity. *European Journal of Women's Studies*, 11(3), 309–326. <https://doi.org/10.1177/1350506804044465>
- Thesander, M. (1997). *The Feminine Ideal*. London: Reaktion Books.
- Turner, S. (1994). *The Social Theory of Practices: Tradition, Tacit Knowledge, and Presuppositions*. Chicago: The University of Chicago Press.
- Volonté, P. (2019a). Segregation of the Plus Size in Contemporary Italian Fashion. In A. Mascio, R. Menarini, S. Segre Reinach & I. Tolic (eds.), *The Size Effect: A Journey into Design, Fashion and Media* (pp. 109–120). Sesto San Giovanni: Mimesis International.
- Volonté, P. (2019b). The Thin Ideal and the Practice of Fashion. *Journal of Consumer Culture*, 19(2), 252–270. <https://doi.org/10.1177/1469540517717775>
- Volonté, P. (forthcoming 2020). The Stylist's Trade: Fashion Styling in Milan in an Era of Digitisation. In A. Lynge-Jorlén (ed.), *Fashion Stylists*. London: Bloomsbury.
- Volonté, P., & Pedroni, M. (2014). L'Obesità nella Società Contemporanea. In M. Canina & P. Volonté (eds.), *Overfashion: Nuove Prospettive per la Moda nella Società che Ingrassa* (pp. 41–60). Milano: FrancoAngeli.
- Wacquant, L. (2004). *Body and Soul: Notebooks of an Apprentice Boxer*. Oxford & New York: Oxford University Press.
- Warde, A. (2005). Consumption and Theories of Practice. *Journal of Consumer Culture*, 5(2), 131–153. <https://doi.org/10.1177/1469540505053090>
- Warde, A. (2014). After Taste: Culture, Consumption and Theories of Practice. *Journal of Consumer Culture*, 14(3), 279–303. <https://doi.org/10.1177/1469540514547828>
- Wissinger, E. (2007a). Always on Display: Affective Production in the Fashion Modelling Industry. In P. Clough & J. Halley (eds.), *The Affective Turn: Theorizing the Social* (pp. 231–260). Durham, NC: Duke University Press.
- Wissinger, E. (2007b). Modelling a Way of Life: Immaterial and Affective Labor in the Fashion Modelling Industry. *Ephemera: Theory and Politics in Organization*, 7(1), 250–269.
- Wissinger, E. (2012). Modelling Consumption: Fashion Modelling Work in Contemporary Society. In J. Entwistle & E. Wissinger (eds.), *Fashioning Models: Image, Text and Industry* (pp. 157–173). London

- & New York: Berg. [1st publication: *Journal of Consumer Culture*, 9(2), 273–296, 2009 <https://doi.org/10.1177/1469540509104377>].
- Wissinger, E. (2013). Fashion Modelling, Blink Technologies and New Imaging Regimes. In D. Bartlett, S. Cole & A. Rocamora (eds.), *Fashion Media: Past and Present* (pp. 133–143). London: Bloomsbury.
- Wissinger, E. (2015). *This Year's Model: Fashion, Media, and the Making of Glamour*. New York: New York University Press.
- Wykes, M., & Gunter, B. (2005). *The Media and Body Image: If Looks Could Kill*. London: Sage.

Paolo Volonté: Dipartimento di Design, Politecnico di Milano (Italy)

📄 <https://orcid.org/0000-0002-8132-4095>

✉ paolo.volonte@polimi.it; 🌐 <https://paolovolonte.wordpress.com>

Paolo Volonté, PhD in Sociology (Milan 2003) and in Philosophy (Freiburg i.Br. 1997), is an associate professor of Sociology of Cultural Processes at the School of Design of Politecnico di Milano. He is co-editor of the *International Journal of Fashion Studies* and coordinator of the study unit META – Social Sciences and Humanities for Science and Technology. His main research interests are in the fields of fashion studies, design studies, science and technology studies, and sociology of knowledge. He is currently finalising a book on *Fat Fashion* (Bloomsbury).

Dark Enactments in Milan: A Practice-Centred Exploration of an Italian Post-Punk Subculture of the '80s

Simone Tosoni*

Submitted: May 30, 2019 – Accepted: December 12, 2019 – Published: December 31, 2019

Abstract

The present paper intends to propose a methodological framework inspired by second generation practice theories and by John Law's concept of enactment for the study of subcultures related to music and style, as a way to circumvent the frontal contraposition between subculturalist and post-subculturalist approaches that characterize the field. Addressing the case of goth (or dark, as the subculture is known in Italy) in Milan in the 1980s, the paper shows how the subculture was not internally homogeneous, but also how its internal variations did not simply depend on personal interpretations. In Milan, in fact, it was possible to observe different and stabilized ways of enacting dark, depending on the bundle of practices in which subcultural participation unfolded: the activist enactment, the music club enactment, and the loner enactment. The three enactments shared the same canon of sub-cultural resources (music, style, literature, cinema, figurative arts, and others), and yet they differed for relevant aspects as stance to political engagement, forms of socialization, relationship with urban public space, and ultimately forms of identity construction.

Keywords: Subcultures; Post-Subcultures; Enactment; Social Practices; Post-Punk.

From the late 1990s, the research field on punk, post-punk and other youth cultures related to music has been characterized by an uninterrupted quarrel between subculturalist and post-subculturalist scholars about the heritage of the influential approach of the Birmingham's Centre for Contemporary Cultural Studies (Hall & Jefferson, 1976; Hebdige, 1979). This debate, that has been already critically discussed in all its complexity (Blackman, 2005; Magaudda, 2009; Bennet, 2011), has led to what for some is a stalemate over key concept of *subculture* (Hodkinson, 2016; Woodman & Wyn, 2016): On the one hand, subculturalist scholars — who take on the heritage of the School of Birmingham — defend its persistent adequacy (Shildrick & MacDonald, 2006), and if anything aim to revamp the concept to address more recent forms of subcultural participation (Hodkinson, 2002); on the other hand, post-subculturalist scholars, inspired by postmodern theories, consider the concept of subculture as un-amendable (Muggleton, 2000; Bennet, 2015), and propose to dismiss it in favour of alternative concepts

* Department of Communication and Performing Arts, Università Cattolica del Sacro Cuore (Italy); ✉ simone.tosoni@unicatt.it;  <http://orcid.org/0000-0003-4842-0824>

like *neo-tribes* (Bennet, 2005), *lifestyles* (Miles, 2000), *scenes* (Straw, 1991; Frith, 1995), and others (Hesmondhalgh, 2005).

The implications of the original concept of subculture that are at stake are plural and multi-faced, and can be traced back to three main topics. First of all, they regard issues of authenticity, in particular in front of the commercialization and mediatization of the subculture: post-subculturalists lament how the concept would “effectively [produce] [...] an abrupt theoretical dichotomy between the authentic subcultural members, and the incorporated followers of commodified [(and mediatized, A/N)] subcultural fashions” (Muggleton, 2000, p. 21). In second instance, they regard the relationship with class: In this case, post-subculturalists lament how the concept of subculture would be flawed by sociological determinism, since it would imply an understanding of “class [...] [as] a structure with the casual power to *generate* subcultures as counter-hegemonic responses to specific historical contradictions” (Muggleton, 2000, p. 20). In this way, the concept would fail to account for the effective class heterogeneity of subculturalists. In what follows I will deal with these two first issues only in relation to a third and last point, that for post-subculturalists would regard a “fallacy within subcultural theory to deal with plural authenticities and plural structures of meanings within the same subculture” (Hannerz, 2015, p. 13). Stressing on the “collective and shared dimensions” (Magaudda, 2009, p. 303)¹ of the forms of identity construction related to style and music, in fact, the concept of subculture would describe these identities as homogeneous, persistent in time, and coherent. From the 1990s on, on the contrary, post-subculturalist have been depicting (post-)subcultural affiliation not only as ephemeral and fluid, but also as prone to individual idiosyncrasies and variations (Bennet, 1999 & 2000; Miles, 2000). This theoretical alternative is increasingly lamented by contemporary scholars as inadequate to make sense of the complexity of empirical cases: as noted by Erik Hannerz, in fact, “the postmodern approach conceals similarities through a focus on difference, [while] the ‘new’ subcultural theorists all too often substitute difference for similarity, arguing that the heterogeneity of style is a matter of individual interpretation of the collectively shared” (2015, p. 15).

The point I will make here is that interrogating (post-) subcultural participation through the lenses of practice theory can methodologically help to account for “plural structures of meanings within the same subculture.” Moreover, a practice-centred approach can also help to circumvent the other two issues at the centre of the present stalemate over the concept of subculture, contributing therefore to open a new common methodological ground for empirical investigations done from a subcultural and post-subcultural perspective. To make this point, I will address the case study of Italian — or better, Milanese — goth² in the 1980s.

The case of Milanese goth — or dark, as the subculture was known in Italy — has been chosen for two reasons. First of all, to contribute to the study of Italian sub- and counter- cultures of those years: A topic so far almost deserted by the Italian academia (De Sario, 2009; Tosoni, 2015), notwithstanding the present rising interest for subcultures in non-Anglo-Saxon contexts (Guerra & Moreira, 2017). In second instance, exactly because it cannot be addressed in an adequate way neither through a strictly subculturalist, nor through a post-subculturalist approach. On one hand, in fact, the subculture shows high indicators of what Hodkinson’s revamped subculturalist approach calls “subcultural substance”: *consistent distinctiveness* (“the existence of a set of shared tastes and values which is distinctive from those of other groups and reasonably consistent,” p. 30); *commitment* (the “tendency for concentrated and continuous practical involvement among participants,” so “to influence extensively the everyday lives of participants,” p. 31); *autonomy* (indicating that “a good proportion of the productive or organizational activities which underpin [a subculture] are liable to be undertaken by and for enthusiasts,” p. 32); and *identity* (the “perception that they are involved in a distinct cultural grouping and share feelings of identity with one another,” p. 30–31). Yet, in contrast with subcultural theory inspired by the School of Birmingham, the subculture also shows high levels of internal differentiation. On the other hand, and in contrast both with “new” subcultural and post-subculturalist theories, these internal variations cannot

1. Throughout the text, translations of non-English sources are by the author.

2. For insiders’ introductions to the subculture, see Baddeley, 2006 & 2010; Scharf, 2011. For a scientific scrutiny of goth in the 1990s in UK and Germany, see Hodkinson, 2002 and Brill, 2002. For an historical perspective on goth’s origins and development after the 1980s, see Spracklen & Spracklen, 2018.

be reduced to the individual level, and “to individual distinction, of tweaking a singular shared meaning so as to stand out as unique” (Hannerz, 2015, p. 16).

A practice-centred approach shows instead how in the 1980s, the internal heterogeneities of the subculture were “structured and structuring” (Hannerz, 2015) Milanese dark in a number of distinct and stabilized forms, depending on the different nexus of social practices (Schatzki, 1996) in which subcultural participation unfolded. Borrowing a concept from the field of Science and Technology Studies, we will refer to these structured variations as different *enactments* of dark (Tosoni, 2017), an enactment being the performative process in which something is actualized in the world through different social practices (Lien & Law, 2013; Law & Lien, 2013). My point is that different enactments generate from what we define the same *subcultural canon* — the common set of cultural and symbolic resources, tastes and values that define the *consistent distinctiveness* of the subculture (Hodkinson, 2002)³ — different forms of subcultural identity.

In what follows I will proceed in four steps: in the next two sections I will sketch the tenets of a fully-fledged practice-centred approach to subcultural participation, and of an enactment approach to subculturalists’ identity construction. In the third section, I will present the three main enactments of dark in Milan in the 1980s: the activist enactment, the music club enactment, and a third one — the loner enactment — where subcultural participation was enacted alone, or in small groups often made up of members of different subcultures. For this part, I will draw on the results of a three-year research study completed in 2012, based of 24 life stories (Ferrarotti, 2003) of subjects participating to the dark scene from 1982 to 1991, that led to the publication of the Italian volume *Creature Simili. Il Dark a Milano negli Anni '80* (Tosoni & Zuccalà, 2013).⁴ In the final section I will discuss some of the main implications of the proposed approach, and I will indicate the empirical and theoretical questions that remain still open, due to the limits of my case study.

1 Exploring Subculturalists’ Doings through Practice Theory

As pointed out by several authors, the classic take of the Birmingham Centre for Contemporary Cultural Studies on subcultures was “primarily grounded in semiotic analyses of style.” (Williams, 2007, p. 576). Therefore, “the CCCS tended to ignore what subcultural participants actually said or did, focusing instead on ‘reading’ their resistance through style and ritual” (Williams, 2007, p. 577).

From the 1990s onwards, scholars have devoted a growing attention to subcultural practices, investigated through qualitative interviews and ethnographic observation. Regarding punk, Kirsty Lohman (2017) reviews “a second wave of studies,” following the semiotic one, that focuses on the ways punk ideology “manifested itself in DIY and anti-capitalist or anti-corporate economic practices,” and “on the social practices of punk” (Lohman, 2017, p. 133). In the former strand of research, the author includes studies by Dale (2012), Gosling (2004), Moore (2004 & 2010), O’Connor (2008) and Thompson (2004), while in the latter she enlists works by Gololobov et al. (2014), Haenfler (2006), Leblanc (1999), O’Connor (2000, 2003 & 2004) and Wallach (2008). Regarding goth, whose academic study was undertaken concomitantly to Lohman’s second wave in punk studies, researchers have devoted from the

3. A prominent role in the dark canon was played by music (i.e., goth, new wave and post-punk) and style, but it also included specific cultural resources in literature (e.g., the poetry of Charles Baudelaire), cinema (e.g., German expressionism), figurative arts (e.g. Dadaism) and others. I adapted the concept of canon from the field of fan studies, where it refers to the “legitimate materials” (Newman, 2008, p. 59) of a franchise, defining a “binding set of resources” (*Ibidem*, p. 60) for fandoms’ participatory cultures. Being the result of constant negotiations between fans, and between fans and production (Gray, 2010; Leow, 2011; Liebler & Chaney, 2007) a canon is to be considered always open and dynamic. Adopting the concept to account for the consistent distinctiveness of a subculture, I intended therefore to underline the shared, but also negotiated, dynamic, and sometimes controversial nature of the subcultural canon. For a broader discussion of the concept of subcultural canon, and for a description of the practices of assemblage of the canon of dark, see Tosoni & Zuccalà (forthcoming, chap. 7).

4. The 24 interviewees were selected following criteria of typological variation along the variables of gender, of place of residence (in Milan or in the neighboring towns), of generation (subculturalists the entered the scene in the first or the second half of the 1980s), and of the role in the scene (simple participants, and organizers, DJs, editors of fanzines, members of a band). Life stories lasted from 2 to 6 hours, and were collected in 1 to 3 rounds. For a detailed presentation of the approach, see Tosoni & Zuccalà (2003; forthcoming).

very beginning a great deal of attention to subculturalists' doings. In the not so vast literature available, scholars have addressed practices as diverse as subcultural events attendance (Brill, 2007; Hodkinson, 2002; Spracklen & Spracklen, 2018); stylistic practices (Hodkinson, 2002), especially in relation to gender construction (Brill, 2007 & 2008; Goulding & Saren, 2009); media-related practices (Hodkinson, 2002 & 2003; Spracklen & Spracklen, 2018); religious and parareligious practices (Powell, 2007; Healey & Fraser, 2017).

Yet, as underlined by Theodor Schatzky,

a wide variety of theorists today use the expressions “practices” or “social practices” in the absence of an elaborated or even explicit conception of practices. These expressions are also often used almost unreflectively, in a way that suggests that the writer or speaker believes that his/her subject matter is a form of, or rooted in, human activities (Schatzky, 2012, p. 14).

In a large part of these studies — on goth, punk or other subcultures/lifestyles — the concept of practices is indeed underdiscussed and assumed in a taken for granted way as a generic synonym of “things that subculturalists do”, the few exceptions being based on the appropriation (and decontextualization) of some key concepts from the theoretical framework of Pierre Bourdieu, like *habitus* (Powell, 2007; Driver, 2011; Branch, 2014), *field* (O'Connor, 2008 & 2016) or (sub-)cultural capital (Thornton, 1995; Brill, 2007; Jensen, 2006). The problem here is that differently defined, methodological concepts as “practice” drive scholars to focus on different aspects of the reality under study, and to frame their research objects differently. Even if the attention to the “things that subculturalists do” has enriched our understanding of subcultural and post-subcultural participation, this lack of reflexivity risks hindering the disciplinary dialogue on subcultural practices, and to undermine the attempt to really move beyond the classical semiotic approach. In this last regard, Christopher Driver notices how, in studies from the 1990s onwards, “there are a number of underlying epistemological assumptions that need to be re-evaluated, not the least of which is the conceptualisation of youth cultural practice as a fundamentally symbolic phenomenon” (2011, p. 975). “The assumption that subcultural practice is significant because it is symbolic of social and cultural identities” (Driver, 2011, p. 976) would have led scholars to overlook the relevance of practices as embodied performances, and as a consequence to miss “the significance of the affective impact of human experience so central to the production of both selves and scenes” (Driver, 2011, p. 976). Drawing on a case study on hardcore dancing known as “moshing”, the author points out how issues of affection and of bodily competences would “anchor” the self of subculturalists, limiting their possibilities of nomadism through temporary subcultural affiliations depicted by post-subcultural scholars.

While sharing Driver's concerns, I find more problematic, in the light of the present controversy between subculturalist and post-subculturalists, to side with his proposal to address subcultural practices adopting Bourdieu's concept of *habitus* (Driver, 2011). With this concept, the French sociologist refers to “the kind of practical sense for what is to be done in a given situation” (Bourdieu, 1998, p. 25), consisting in an embodied configuration of dispositions, that “are generative principles of distinct and distinctive practices [...] [and at the same time] also classificatory schemes” (Bourdieu, 1998, p. 8) for their evaluation. The problem is that Bourdieu's habitus is strictly related to the subjects' material conditions and ultimately to class, and is “not only a structuring structure, which organizes practices and the perception of practices, but also a structured structure: the principle of division into logical classes which organizes the perception of the social world is in itself the product of internalization of the division into social classes” (Bourdieu, 1984, p. 170). As we have seen, this strict relation between class and subcultural practices is exactly one of the points currently under debate between subculturalists and post-subculturalists. The controversial nature of this hypothesis within the field discourages to take it on board at the level of the key methodological concept adopted (like it would happen with the concept of *habitus*), and demands instead empirical investigation, case by case.

Class relatedness, on the other hand, is not implied by the key methodological concepts of a second wave of practice theories that, starting from the 1990s, inspired the so-called practice turn (Schatzki, Knorr-Cetina & Savigny, 2001) in disciplines and research fields as diverse as sociology, social and political anthropology, media studies, science and technology studies, and others. Drawing on the works by early theorists such as Anthony Giddens, Michel Foucault and of course Pierre Bourdieu, authors

like Theodore Schatzki (1996), Andreas Reckwitz (2002) and Elizabeth Shove (Shove et al., 2012) have deployed what must be regarded as a practice-centred social ontology, that conceives “the social [...] [as] a field of embodied, materially interwoven practices centrally organized around shared practical understandings. This conception contrasts with accounts that privilege individuals, (inter)actions, language, signifying systems, the life world, institutions/roles, structures, or systems in defining the social” (Schatzki, 2001, p. 12). This implies the reversal of the perspective of all alternative approaches — including class-based approaches: the primacy goes in fact to the nexus of practices in which a specific portion of a social reality consists, while all the other theoretical issues are to be interrogated in relation to said nexus. For the study of subcultures and post-subcultures, this implies centring the primary analytical focus on the practices in which participation unfolds, and interrogating all the issues typical of the research field in relation to them, including issues of identity construction and authenticity.

In this respect, a rigorous definition of “practice” is methodologically of pivotal relevance. While “social theorists agree that there is no such thing as a coherent, unified ‘practice theory’” (Postill, 2010, p. 6), all practice theorists “uphold [...] that practices consist in organised sets of actions, that practices link to form complexes and constellations — a nexus — and that this nexus forms the ‘basic domain of study of the social sciences’ (Giddens, 1984, p. 2)” (Hui, Schatzki & Shove, 2017, p. 1). Moreover, they all conceive practices as double articulations: “of activities [or actions] as tasks with a function in an overall teleological architecture; and of activities as bodily performances, coordinated in their enactment in complex choreographies.” (Tosoni & Turrini, 2018, p. 286). Finally, all theorists agree on the relevance of material “objects, infrastructures, tools, hardware and the body itself” (Shove et al., 2012, p. 23) in the organization and unfolding of a practice, even if there is disagreement on conceiving these socio-material elements as basic constituents of social practices (e.g., Shove et al., 2012, pro; Schatzki, 2002, contra). More specifically, Theodor Schatzki maintains that the organization of a practice depends on four “types of items”:

- (1) action understandings, which are abilities to carry out, recognize and respond to particular actions; (2) rules, which are formulated instructions, directives, admonishments, and the like; (3) teleoaffective structures, which contain enjoined and acceptable ends, enjoined and acceptable projects and actions to carry out for those ends, and enjoined and acceptable emotions; and (4) general understandings — of matters germane to the practice (Schatzki, 2009, p. 39).

This definition of practices seems particularly apt to set the ground to deal with issues of “plural authenticities and plural structures of meanings within the same subculture.” First, because it underlines how practices are always inherently social, whether they are undertaken alone or with other people.⁵ The general understandings, the action understandings, the rules and the teleoaffective structures that organize them are in fact always shared among practitioners, and do not depend on the idiosyncrasies of the individual practitioner. This does not mean that each single practitioner cannot hold individual interpretations of the practice, or that they cannot eventually break its rules: yet, in light of the overall organization of the practice, to expert practitioners these interpretations appear indeed as individual interpretations, and these behaviours as transgressions (or as innovations) of the practice. In this respect, by adopting this definition of practice we can account for the presence of individual interpretations of the subculture, and at the same time for its *consistent distinctiveness*.

Secondly, because it underlines how tastes, values, and meanings that define a culture (or a subculture) are not “free-floating”, but are always “embedded” in specific social practices: (sub-)cultures are always accessed through, and mediated by, social practices — including practices of media consumption. The engagement in different nexus of practices, therefore, may mediate (sub-)cultures differently. Moreover, this conceptualization also underlines how practices are characterized both by specific action understandings and teleoaffective structures, and by “general understandings”, that “in Schatzki’s (2002) formulation, [can be] [...] common to many practices” (Welch & Warde, 2017, p. 184). In this respect, this definition of practice also allows us to account for the *consistent distinctiveness* of a subculture (to be

5. Among others, Kirsty Lohman (2017) counterposes punk’s “social” and “individual” practices, the former implying socialization with other members.

acknowledged in its canon of symbolic and cultural resources, tastes and values), and at the same time for a plurality of forms of subcultural identity and authenticity (deriving from the specific understanding, rules, and teleoaffective structures of a practice, or of a nexus of practices): a point that, under a methodological point of view, will be addressed adopting the concept of enactment from the field of science and technology study.

2 Exploring Subcultural Identities through an Enactment Approach

David Muggleton and Rupert Weinzierl (2003) have underlined how “different applications of the work of both Bourdieu and Butler have helped to establish a resolutely anti-essentialist approach to subcultural theory” (p. 11): since the late 1990s, the idea that subcultural “identities are not ontologically distinct or pre-existent, but are brought into being, constructed and replayed through every day actions, dress, adornment and other cultural practices” (Evans, 1997, p. 181) has become a tenet in the field. Since then, several authors have generically termed “enactment” the process of performative and discursive subcultural identity construction, authentication or invalidation (e.g., Piano, 2003; Stahl, 2003; Goulding & Saren, 2009; Hannerz, 2015). While adopting this same term, I give to the concept a more restrictive meaning, reconnecting it to the practice-centred approach outlined so far, where “fixed social concepts, such as nation or gender [...] [are reformulated] as processes of enactment and (specific) categories of practice (e.g., Brubaker, 1996; Butler, 1993)” (Welch & Warde, 2017, p. 184).

This conceptualization of *enactment* is derived from John Law and Marianne Elisabeth Lien’s investigations into empirical ontology (Lien & Law, 2011; Law & Lien, 2013), in the context of what some scholars have defined as the “turn to ontology” in Science and Technology Studies (Woolgar & Lezaun, 2013). Law and Lien’s empirical ontology moves, in fact, from concerns that are very close to the ones we are dealing with, consisting in “handl[ing] empirical difference” (Law & Lien, 2013, p. 364) in ‘entities’: Atlantic salmon in their case, subcultural identities in ours. Their approach addresses these differences by “focusing on practices rather than people or groups” (Law & Lien, 2013, p. 364), and it entails two key “methodological moves”:

A salmon is not general but specific. It depends on how “it” is being done in practice. We do without the assumption that there are salmon out there with a definite form, in existence outside the practices in which they are being done. That is the first move. And then, here’s the second, it follows that since those practices aren’t the same, different and multiple salmon subsist in different and multiple worlds. This, then, follows once we study ontology empirically. There is no ordered ground separate from practices and their relations. If there is order, it is a provisional and specific effect of practices and their ordering relations. There is no “salmon” behind the various practices that do salmon (Law & Lien, 2013, p. 366).

These methodological moves represent a valuable leverage to avoid what Alan O’Connor defines “substantive thinking” (2016) on subcultural identities, and that on his opinion still characterizes the field notwithstanding the aforementioned anti-essentialist turn. In substantive thinking, as O’Connor clarifies for punk,

the author [...] seeks to describe and typify punk subculture. [...] [E]xamples or instances that do not fit the author’s model are written off as exceptions or anomalies. Much academic writing on punk in effect constructs an ideal type (in Max Weber’s sense) that might be useful as a thought experiment, but that completely sets aside the diversity within actual punk scenes. (O’Connor, 2016, p. 68).

Along the same lines Erik Hannerz (2015) laments that “even when different kinds of participants are included [in a sample] they are nevertheless ordered according to commitment and authenticity, with one group of participants being [...] given the privilege of defining the others” (pp. 192–193), concealing as a consequence “plural authenticities and plural structures of meanings within the same subculture.”

An enactment approach, on the contrary, does not move from the construction of an ideal type, or from endowing one “group” with the privilege of defining the authenticity of the others: instead, it does

without the assumption that a subcultural identity — dark, in our case — has a definite form outside the social practices in which it is enacted mobilizing the subcultural canon, and since these practices aren't the same, it assumes that there are different and multiple forms of subcultural identities: different and multiple darks.

Under a methodological point of view, this entails starting from mapping the practices in which the subcultural canon is put into play — going dancing, consuming, being politically active and so on and so forth. From the analysis of the life stories gathered for the present case study, three different kinds of practices emerge: (1) practices that are common to all life stories, and that are deemed of key relevance for subcultural participation: basically, practices of cultural consumption and stylistic practices; (2) practices that are common to a part of the sample, and that are deemed of key relevance for subcultural participation: as we will show in the next section, these practices define the differences among enactments. For example, political participation is deemed of key relevance within the politically engaged enactment, while going dancing is one of the core practices of the music clubs enactment; and finally (3) other practices, that subjects do not deem as of key relevance for subcultural participation (and yet, as we will see, they can be shaped by subcultural participation).

In sum, each enactment unfolds in a nexus of practices of the three kinds, where practices of the second kind mark the differences among enactments. Here, three further observations are needed: first, a practice of the second kind — deemed as of key relevance in an enactment — can appear as a practice of the third kind in another enactment: for example, as we will see, political participation can appear in the life stories of subjects engaged in the music clubs enactment, and in the same way subjects in the politically engaged enactment may go to dance, yet these practices are held as “individual” and “personal”, and as irrelevant for subcultural participation. Second, “deeming a practice of key relevance” is not a matter of individual perception, because it is related to social criteria of authentication or invalidation of subcultural identities within each enactment. Or rather, to social criteria of attribution of subcultural capital in Thornton's sense (1995) — an ideological resource through which subculturalists acquire a respected status — since, as we will see, the only subcultural identities that are invalidated throughout our sample are the ones of weekenders and “part-time” darks. This implies a relevant theoretical point: subcultural capital is acquired in different ways within different enactments, and has value within each enactment. Finally, while we find his practice-centred approach very inspiring, we resist O'Connor's proposal in considering a subculture — in his case, punk — as a field in Bourdieu's sense, or “a relatively autonomous area in which specialized activities take place” (O'Connor, 2016, p. 69), because, as we are going to show, every enactment unfolds within multiple fields, because these fields can differ from enactment to enactment, and because “aspects of subcultural motivation, practice, understanding and identity connect to broader equivalents across so-called ‘normal’ or ‘mainstream’ society” (Hodkinson, 2016, p. 569).

3 Enacting Dark in Milan 1982–1991

Milanese dark in the 1980s represented the local appropriation of a canon of symbolic resources (a shared set of values and tastes in music and style, but also in literature and art) deriving mainly from the U.K., and usually intercepted through mainstream, independent and niche media (Thornton, 1995). Yet, in line with the literature on the reception of music-centred subcultures outside their context of origin (for Italy, see, for example, Wright, 2000; Androustopoulos & Scholz, 2003; Baldini, 2010; Bottà, 2012; Persello, 2016), the subculture cannot be regarded as a mere emulation of UK goth: in the process of appropriation, in fact, its canon was enriched and partially transformed, and took new and specific meanings deriving from the socio-political conditions of the local context. Moreover, this process of appropriation cannot be regarded as a homogeneous and monolithic phenomenon: on the contrary, it took different forms depending on the different ways dark was locally enacted. As anticipated, in Milan in the 1980s, it was possible to identify three main enactments of dark: the activist enactment, the music clubs enactment and the loner enactment.

3.1 Creature Simili: The Activist Enactment of Dark

“Creature Simili” — “Kindred Creatures” — was the name used in the early 1980s at the anarchic punk squat Virus to address those people who hung out there, and yet were not regarded as “real” punks. What marked their difference in the eyes of punx⁶ was not only their style — the dark’s total black — or the music they preferred — post-punk and goth⁷ definitely more than the hardcore punk that was all the rage at the squat in those years. More relevantly, Creature Simili were considered politically ambiguous because they did not find themselves at ease with the rigid line of frontal political contraposition that the squat had chosen. In years in which the repression of the political movements of the 1970s was still harsh (Mudu & Piazza, 2016), in fact, the Virusians were engaged in intense political activism, through leafleting, public protests, and occasional clashes with the police. Moreover, all the cultural activities of the squat — such as meetings and assemblies — were rigidly politicized, and all mandatorily revolving around issues of resistance to the repression, and of defence of the squat and other “freed spaces”. The rules on granting the access to the Virus’ stage were a clear example of this cultural approach: all the bands that were invited to play (like Wretched and Negazione) addressed in their lyrics the same political themes that were of concern to punx. No band could perform if they weren’t participating to the political activities of the squat. Other issues did not receive much attention, including those that were held as crucial by Creature Simili: existential issues related to identity and self-expression, to the body and to alternative sexuality. In the same way, while punx could privately “indulge” in forms of expression like art, literature, theatre or even just dancing, these practices were by and large perceived as not relevant for the political struggle and therefore dismissed as of secondary relevance for the subculture: they were perceived as practices of the third kind, when not looked down at as forms of political disengagement.

While identifying with the anarchic political beliefs of the squat, Creature Simili found this cultural line too suffocating, and deaf to the new existential concerns that were arising at those times: concerns related to identity and self-determination in a society where the neoliberal values had become mainstream. Conversely, they found these anxieties resonating deeply within the UK post-punk music of those years, and with the cultural resources it was deeply intertwined with: from French existentialism to the historical avant-gardes, from the theatre of Antoin Artaud and Lindsay Kemp to novels by Kafka, from the *Poètes Maudits* to the Italian *Scapigliatura*.

People from the Virus were not really into that kind of thing. They only wanted bands who were politically engaged, so they’d only talk about Crass, Flux of Pink Indians, Anti Cimex: anarchist bands that resonated with their experiences. And this was because punx were undoubtedly interested in music, but they were interested in politics even more. If you spoke with someone who hung out at the Virus, of course they knew who Siouxsie and the Banshees were. Or Joy Division. Or Killing Joke. But these bands didn’t fit very well with their way of seeing things. I mean... Bauhaus never sang about anarchy, occupations or protesting nuclear weapons and war. (Roy, M)

Some events exacerbated these divergences, like the protest against the Italian band CCCP in February 1984, when the band was invited to play at the squat by Creature Simili and was harshly contested by the punx (Tosoni, 2015b). The group left the Virus, created a new collective, and officially called it with that same name they were already informally using: Creature Simili.

In any case, leaving the squat did not imply political disengagement. The new collective kept participating in the political activities of the Virus, and started to organize others on their own. They called them “mental attacks”: sorts of situationist actions performed on Saturday afternoons in the main commercial streets of Milan, aimed at sensitizing people to the lack of non-commercial social spaces in the city.

The enactment of dark proposed by Creature Simili was very visible and influential not only in Milan and in Northern Italy, but also all over the country. Since 1982, in fact, *Quelli di Amen* (The People of Amen) — a relevant group within Creature Simili — published *Amen*, the first and most important

6. The “X” in “punx” was the way in which anarcho-punks marked their difference in graffiti and leaflets from other, non-activist enactments of punk.

7. For a musicologist approach to goth music see Elferen & Weinstock (2016).

Italian dark fanzine. *Amen* was distributed all over Italy in more than two thousand copies, and each issue included a tape of Italian post-punk bands. As it was typical of this enactment of dark, the editorial line of the fanzine included music along with political issues related to religion, nationalism, sexuality and gender:

[We devoted a lot of] *attention to sexuality [...], to the urgency of getting rid of the archaic legacies of the past [...], [to] transgender, homosexuality, self-determination [...]. At that time, we thought that *Amen* was more an anomaly than an integral part within the dark scene, but I realize now that for many people we were a point of reference. We were so surprised to sell so many copies and receive so many letters.* (Angela, F)

By 1984, thanks to their political activities, Creature Simili had gained a reputation within what was left of the radical left in the city, savaged by the on-going repression. After some failed attempts to occupy an independent space, they were hosted within Leoncavallo, at that time the most important squat run by Autonomia Operaia (Autonomism) (De Sario, 2012). At Leoncavallo, in fact, *Quelli di Amen* had successfully organized several Italian dark bands gigs since 1982, with a success that was unforeseen even to the organizers themselves.⁸ This space, called *Helter Skelter*, soon became one of the reference points for the dark scene of all of Northern Italy and Switzerland. The cultural line proposed by *Helter Skelter* was once again characterized by the same radically politicized and activist stance that had already been typical of Creature Simili and *Amen*, blending cultural activities of international level — with bands, artists and filmmakers invited from all over Europe — with political actions. This experience, that among the other things introduced cyberpunk in Italy (Nacci, 2018), lasted until 1987, when it came to an end (due to an internal crisis within its organizing group), together with the enactment of dark it promoted.

3.2 Enacting Dark in Music Clubs

The end of the *Helter Skelter* didn't imply the end of the first dark-wave in Milan, since the activist enactment was not the only one in the city. A second relevant one had in fact emerged during 1983, in the alternative music club scene spread all over Northern Italy, that had its centre at the Milanese disco *Hysterika*: in this enactment, going dancing was in fact a practice of the second kind. As punks had initially looked down on Creature Simili, Creature Simili looked down on people enacting dark in this different way, considering them interested only in the most superficial aspects of the subculture.

At the beginning, we kinda laughed at them, because it seemed just fashion to us: something very superficial. (Nino, M)

For Creature Simili, in fact, the authenticity of subcultural identities had to be certified with coherence between cultural consumption, style and involvement in active political commitment: in this enactment, activism was a practice of the second kind. On the contrary, for the participants of the alternative music club scene, activism was a practice of the third kind: even if many of them were politically active on a personal level, activism was regarded as not relevant to enact dark:

The problem was that we were non-politically active, as they used to say: we didn't go around putting up posters; we didn't organize concerts. We did participate at demonstrations: many of us did. But we didn't participate as a group. (Sergio, M)

People involved in this second enactment of dark had, in fact, a completely different take on politics. Dismissed the hope of changing society that characterized the radical movement of the 1970s, for Creature Simili (as for punx), active political struggle assumed an ethical value in itself, and became a relevant aspect of identity: as we have stated, it certified subcultural authenticity. For the people in the disco club enactment, on the contrary, there was no point in paying the high personal price implied by a hopeless political activism under the harsh repression of the state. Resistance had rather to be carried

8. See Section 3.3.

out through identity politics, and at a cultural level. Yet, this silent refusal to adopt the new values of hedonism and consumerism had to be publicly exhibited through the visual shock provoked by dresses, makeup and hair styles. Especially for women, this shock factor was a way to refuse and deconstruct the gender stereotypes promoted by television and other media at that time:

I didn't wear makeup properly. It would be more correct to say that I drew stuff on my face: spiders, bats, spider webs. I wore miniskirts, torn stockings, and big long shirts that completely hid my body. And of course, smeared lipstick. I didn't care that people found me ugly, unattractive and not feminine at all. If being feminine meant being [what was shown in television], then I preferred not to be classifiable at all. (Sara, F)

This sort of identity politics overheated the relevance of fashion and style, and of urban spaces (in particular, the city centre) as a sort of theatre: a stage where to show off the refusal of mainstream values. Not surprisingly, within this enactment, style was by far more spectacular than in the politically activist one, and seen with some suspect by Creature Simili. While adopting similar visual codes they in fact found it too formulaic, and too much looked after: for darks in the activist enactment urban space was more a space for political action than a stage where to be seen. For this second enactment, on the contrary, style was at the centre of the criteria of subcultural identity validation: a poser was not who was politically disengaged, but who changed their style depending on the occasion, shifting to a conventional way of dressing to avoid conflict at school, family or workplace. Since aesthetic assumed an ethical value, a chameleon-like attitude was deprecated as a sort of betrayal. Admittedly, also in this enactment the way of dressing changed depending on the situation and on the specific practices in which darks were engaged: especially in discos and clubs, attended on a regular basis, clothes were more sophisticated and, especially for women, also more openly seductive and sexualized (Brill, 2008) than in gatherings in urban public space. Moreover, and in a way that was completely unknown within the enactment of Creature Simili, being able to dress properly, with taste and creativity, was actually a way to gather subcultural capital (Thornton, 1995; Brill, 2007). Botched attire could even imply marginalization from the group:

There were differences in style, but in any case style mattered. I remember these guys: we called them "the prodigies" for their look, because, in our opinion, their style was very coarse. In our view they were kinda [...] boorish, because of their style, basically. (Paola, F.)

The same applied to the ability to show refined competencies in cultural consumption, especially in music. Once again, being always up to date and in the know about niche bands inside the goth canon was an important way to gain a reputation.

Hysterika closed in 1991, and this date could also be symbolically regarded as the end of this second enactment of dark. Even if in the 1990s new clubs will open in Milan and its hinterland, dark will be enacted in a new and different way: practices performed in urban spaces — like socializing and “shocking” — will become less relevant, and a strict coherence in style less mandatory, since aesthetic and ethic would progressively lose their close connection. Dark will become mainly a club culture, and the stylistic hybridization with fetish will hypersexualize clothing. Many of the people who in the 1980s had brought the alternative music club scene to life will move to the new rave scene, either as participants or organizers.

3.3 The Loner Enactment of Dark

In Milan, and especially in its hinterland, dark was also enacted in a third way, even if in this case it's not possible to properly talk about a third (sub-)scene — if not mediated. Dark, in fact, was also enacted alone, or in small and isolated groups, not infrequently heterogenous in terms of subcultural identities. In this case, subcultural belonging — the feeling of being part of a broader symbolic community — was not sustained by the participation to large groups of people, but mainly through cultural consumption:

There were people who owned so much stuff — vinyl records, books, clothes — and the desire to accumulate was important. It was something new and different from the previous cultures. It was the construction of a personal world, to be furnished piece by piece, and the longing to create a sort of shelter that was not immediately conflictual. (Roxie, F.)

Of course, music played a key role, even if this didn't imply attending music clubs. The practice of going dancing was in this case a practice of the third kind (not relevant to enact dark), and sometimes was openly refused as too frivolous. On the contrary, concerts where attended with religious enthusiasm as sort of rites during which the community, otherwise only symbolic, became temporarily embodied:

I was almost fifteen and I didn't go dancing in dark clubs, so attending a concert was something essential and unique [...], it meant feeling part of a community, of a movement. When everybody was singing the lyrics of a song by The Cure together, and I was among them, I could finally feel that it was not only me, secluded in my room, obsessively listening to Faith and Pornography. It was a sort of liberating rite (Sara, F).

Some of these concerts were organized by *Quelli di Amen* — and at a later point by *Helter Skelter* — at the *Leoncavallo squat*:

The artworks [we used to advertise our concerts] were very targeted, and so we discovered a whole universe of isolated people dressing in black. You could really feel that these people had found a situation in which they could recognize each other. For the first time, we saw so many people that probably had a lot in common, and that had developed their interests in a way that was defiladed, intimate, segregated in closed spaces: they had undergone a sort of transformation in their own private sphere, with gothic literature, H.P. Lovecraft and Edgar Allan Poe as milestones, but not overlooking the Italian Scapigliatura movement, romanticism, and decadent poets. (...) It was very surprising to see so many people sharing a common identity. (Angela, F)

In any case, the explorations of the subcultural canon were deep and systematic not only in music, but also in theatre, literature, art, and cinema, often chasing the lavish homages and quotations that could be generously found in post-punk band lyrics.

Reading fanzines was also very important, and some of them were published regularly — sometimes in very few copies — by loner darks themselves. In this respect, these darks cannot be regarded as those subculturalists who Todd Dedman (2011) defines “peripherals” (those who limit their participation to the subculture to superficial forms of consumption), and who he distinguishes from “purists” (those who shape the subculture more actively). This enactment of dark had, in fact, its own peripherals and purists, since isolated darks often had very refined cultural competencies, and were often very active in the DIY production of music and fanzines.

Publishing and reading fanzines was not the only form of mediated communication within this enactment: writing letters all over Italy to a vast network of pen pals (whose addresses could be found in those same fanzines and magazines) was a practice of primary relevance, and somehow it anticipated the role that the Internet would play years later (Hodkinson, 2003):

*I started putting ads in music magazines, looking for pen pals, to find people that might somehow be similar to me. I exchanged letters with so many people [...]: sometimes it looked like my mailbox was about to explode! [...] I met some of them in person, but many wrote to me from far away, even from Sicily [...]. I understood that many of them were isolated, just like me, and we all dreamt about London [...]. One of my pen pals even became my first boyfriend: we exchanged letters for two years before seeing each other for the first time! Then, later on, I created my own fanzine: *Settimo Senso*. (Donatella, F)*

Finally, this last enactment shared with the music club one the same identity politics and the same strategy of visual shock performed in public spaces. In many cases, it was expressed in the small towns neighbouring Milan, where enacting dark in public was harder since it easily carried the risk of verbal and physical assault. Not surprisingly, for loner darks incoherence in style was therefore deprecated as a sign of inauthenticity even more than in the music club enactment. In contrast with it, however, also getting “gothed-up” for concerts, events and other forms of gathering was seen with some suspect, since too extreme outfits seemed impossible to be adopted also in everyday life. Therefore, while for some the loner enactment represented a sort of a first step in a subcultural career that would have led them to join

the other enactments, for many it remained the only proper way to live goth: while sharing with other darks the same hangouts in Milan — pubs, music shops, clothes shops — they chose never to join larger groups.

4 Conclusions

As we have seen, a practice-centred approach brings out how in Milan, in the '80s, dark took three different forms, depending on the nexus of practices in which subcultural participation unfolded. While sharing the same subcultural canon, these three enactments of dark had relevant differences. First of all, they differed in their criteria of subcultural capital attribution (Thornton, 1995) and of authentication of subcultural identities (Hannerz, 2015). The activist enactment, in fact, required coherence between style, cultural consumption and political engagement, while the other two coherence in style throughout all the situations of daily life. Moreover, the loner enactment was more resistant to the radicalization of style in occasion of subcultural events, and the music club enactment more picky regarding stylistic and musical competences. Second, they differed in terms of patterns of socialization, with the loner enactment lived alone or in small and often heterogeneous groups — but with intense mail-mediated social relationships — and the other two implying the participation to large groups of subculturalists. Third, each enactment also had its own sub-scene: while the urban public space was in fact of key relevance for all of them (yet, with different roles), the squat and the disco clubs circuits remained distinct, even if the circulation of members between them was quite common, with subculturalist moving from an enactment (and sub-scene) to another, depending on their own attitudes. Moreover, a relevant part of the loner enactment's sub-scene was actually "virtual", mediated by fanzines and mail exchanges. Finally, the three enactments differed for stance toward politics, with the lone and disco clubs relegating activism — central for the first enactment — to subculturalists' individual choices.

Under a methodological point of view, this approach circumvents the frontal contraposition between subculturalist and post-subculturalist approaches moving its main focus to social practices. In this way, it deals with plural structures of meanings within the same subculture at an intermediate level, without methodologically over-emphasizing neither the collective nor the individual levels of the experience of subcultural participation. Moreover, and coming to the other two points at stake in the present debate, it does not methodologically assume nor denies any specific relationships between class and subcultural participation, but demands the issue to be empirically investigated; and finally, it avoids "substantive thinking", not granting to a specific group of subculturalist the privilege to define the authenticity of all the others.⁹

The approach we have sketched has the ambition to be applicable both to subcultures and post-subcultures. Yet, it has been tuned up through a grounded theory approach (Glaser & Strauss, 1967) to address the presented case study. Therefore, it leaves unexplored several theoretical questions whose answers exceeds its limits. The main one, in my view, concerns the relationship between subcultural canon and enactments. The canon of dark was in fact particularly stable throughout the 1980s. Even when specific sub-canons took shape, in those years they didn't give rise to new enactments, at least in Milan. It's the case, for example of the sub-canon of neo-folk, associated to a recognisable style in music and cloths (more martial, and mimicking military uniforms), whose enactment was an integral part of the music club one. Under a political point of view, this sub-canon was prone to lean to the extreme right: interestingly, since political participation and activism were held as matter of personal choices within the enactment (as a practice of the third kind), this didn't create a rift, or even particularly harsh frictions, within a sub-scene that was by and large closer to anarchist and extreme left positions. In any case, and notwithstanding the specificity of our findings, the relation between subcultural canon and enactments must be conceived always as a relation of mutual shaping: when performed, the subcultural canon is always re-established, but also re-negotiated. Addressing other subcultures or lifestyles would allow to explore different, and more dynamic forms of this relationship.

9. As an exception, we have not systematically analysed weekenders and part time goths, held as not authentic by interviewees in all the enactments: properly, this would be a fourth, unanimously invalidated enactment of dark.

Finally, also some aspects of our research object — the local appropriation of dark — need further investigation: first of all, because our main focus on the level of enactment led us to neglect the analysis of the specificities of the local canon compared to the UK one. When dealing with local appropriations of international subcultures/lifestyles, a complete analysis would require an attention to both the levels of canon and of enactment. Moreover, the present case study focused on the case of Milan and of its hinterlands. From twenty follow-up interviews with non-Milanese readers of *Creature Simili* (Tosoni & Zuccalà, 2013) no other enactments of dark had emerged — even if the three enactments were not present in all the cities, and sometimes they showed relevant differences. Nonetheless, the representativeness of the case of Milan for the Italian context cannot be ascertained without extending the analysis to other local scenes.

References

- Androutsopoulos, J., & Scholz, A. (2003). Spaghetti Funk: Appropriations of Hip-Hop Culture and Rap Music in Europe. *Popular Music and Society*, 26(4), 463–479. <https://doi.org/10.1080/0300776032000144922>
- Baddeley, G. (2006). *Goth Chic: A Connoisseur's Guide to Dark Culture*. London: Plexus.
- Baddeley, G. (2010). *Goth: Vamps and Dandies*. London: Plexus.
- Baldini, C. (2010). Dionysus Returns: Contemporary Tuscan Trancers and Euripides' The Bacchae. In G. St. John (Ed.), *The Local Scenes and Global Culture of Psytrance* (pp. 170–185). London, New York: Routledge.
- Bennett, A. (1999). Subcultures or Neo-Tribes? Rethinking the Relationship between Youth, Style and Musical Taste. *Sociology*, 33(3), 599–617. <https://doi.org/10.1177/S0038038599000371>
- Bennett A. (2005). In Defence of Neo-tribes: A Response to Blackman and Hesmondhalgh. *Journal of Youth Studies*, 8(2), 255–259. <https://doi.org/10.1080/13676260500149402>
- Bennett A. (2011). The Post-Subcultural Turn: Some Reflections 10 Years On. *Journal of Youth Studies*, 14(5), 493–506. <https://doi.org/10.1080/13676261.2011.559216>
- Bennett A. (2015). Australian Subcultures: Reality or Myth? In S. Baker, B. Robards, & B. Buttigieg (Eds.), *Youth Cultures and Subcultures: Australian Perspectives* (pp. 11–20). Farnham: Ashgate.
- Blackman S. (2005). Youth Subcultural Theory: A Critical Engagement with the Concept, its Origins and Politics, from the Chicago School to Postmodernism. *Journal of Youth Studies*, 8(1), 1–20. <https://doi.org/10.1080/13676260500063629>
- Bottà, G. (2012). Articulating Punk in an Industrial City: Turin and the Collettivo Punx Anarchici in the Early 1980s. *United Academics Journal of Social Sciences*, 2(12), 34–48.
- Bourdieu, P. (1984). *Distinction: A Social Critique of the Judgement of Taste*. London: Routledge.
- Bourdieu, P. (1998). *Practical Reason. On the Theory of Action*. Stanford: Stanford University Press.
- Branch, A. (2014). “Stop Flexing Your Roots, Man”: Reconversion Strategies, Consecrated Heretics and the Violence of UK First-Wave Punk. *Punk & Post-Punk*, 3(1), 21–39. https://doi.org/10.1386/punk.3.1.21_1
- Brill, D. (2007). Gender, Status and Subcultural Capital in the Goth Scene. In P. Hodkinson, & W. Deicke (Eds.), *Youth Cultures: Scenes, Subcultures and Tribes* (pp. 111–128). New York: Taylor & Francis.
- Brill, D. (2008). *Goth Culture: Gender, Sexuality and Style*. London: Bloomsbury Academic.

- Brubaker, R. (1996). *Nationalism Reframed: Nationhood and the National Question in the New Europe*. Cambridge: Cambridge University Press.
- Butler, J. (1993). *Bodies That Matter: On the Discursive Limits of "Sex"*. New York & London: Routledge.
- Dale, P. (2012). *Anyone Can Do It: Empowerment, Tradition and the Punk Underground*. Burlington: Ashgate.
- De Sario, B. (2009). *Resistenze Innaturali: Attivismo Radicale nell'Italia degli Anni '80*. Milano: Agenzia X.
- De Sario, B. (2012). Cambiamento Sociale e Attivismo Giovanile nell'Italia degli Anni Ottanta: Il Caso dei Centri Sociali Occupati e Autogestiti. *Cahiers d'Etudes Italiennes*, 14, 117–138. <https://doi.org/10.4000/cei.416>
- Dedman, T. (2011). Agency in UK Hip-Hop and Grime Youth Subcultures — Peripherals and Purists. *Journal of Youth Studies*, 14(5), 507–522. <https://doi.org/10.1080/13676261.2010.549820>
- Driver, C. (2011). Embodying Hardcore: Rethinking "Subcultural" Authenticities. *Journal of Youth Studies*, 14(8), 975–990. <https://doi.org/10.1080/13676261.2011.617733>
- van Elferen, I., & Weinstock, J.A. (2016). *Goth Music: From Sound to Subculture*. New York: Routledge.
- Evans, C. (1997). Dreams That Only Money Can Buy... Or, the Shy Tribe in Flight from Discourse. *Fashion Theory*, 1(2), 169–188. <https://doi.org/10.1080/1362704x.1997.11419207>
- Ferrarotti, F. (2003). *On the Science of Uncertainty: The Biographical Method in Social Research*. Lanham: Lexington Books.
- Frith, S. (1995). The Stockton Conference: Recollections and Commentaries. In W. Straw, S. Johnson, R. Sullivan, & P. Friedlander (Eds.), *Popular Music: Style and Identity*, Montreal: The Centre for Research on Canadian Cultural Industries and Institutions, iii.
- Giddens, A. (1984). *The Constitution of Society*. Cambridge: Polity Press.
- Glaser, B.G., & Strauss, A.L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.
- Gololobov, I., Pilkington, H., & Steinholt, Y.B. (2014). *Punk in Russia: Cultural Mutation from the "Useless" to the "Moronic"*. London: Routledge.
- Gosling, T. (2004). "Not for Sale": The Underground Network of Anarcho-Punk. In A. Bennett, & R. Peterson (Eds.), *Music Scenes: Local, Translocal, and Virtual*, (pp. 168–183). Nashville: Vanderbilt University Press.
- Goulding, C., & Saren, M. (2009). Performing Identity: An Analysis of Gender Expressions at the Whitby Goth Festival. *Consumption Markets & Culture*, 12(1), 27–46. <https://doi.org/10.1080/10253860802560813>
- Gray, M. (2010). From Canon to Fanon and Back Again: The Epic Journey of Supernatural and Its Fans. *Transformative Works and Cultures*, 4. <https://doi.org/10.3983/twc.2010.0146>
- Guerra, P., & Moreira, T. (Eds.). (2017). *Keep It Simple, Make it Fast! An Approach to Underground Music Scenes*, (Vol. 3). Porto: Universidade do Porto.
- Haenfler, R. (2006). *Straight Edge: Clean-living Youth, Hardcore Punk, and Social Change*. New Brunswick: Rutgers University Press.
- Hall, S., & Jefferson, T. (Eds.) (1976). *Resistance through Rituals. Youth Subcultures in Post-War Britain*. Hutchinson: London.

- Hannerz, E. (2015). *Performing Punk*. New York: Palgrave Macmillan.
- Healey, K., & Fraser, L. (2017). A Common Darkness: Style and Spirituality in Goth Subculture. *Journal of Popular Music Studies*, 29(3), 1–14. <https://doi.org/10.1111/jpms.12231>
- Hebdige, D. (1979). *Subculture, the Meaning of Style*. London: Methuen.
- Hellekson, K., & Busse, K. (2006). Introduction. In K. Hellekson, & K. Busse (Eds.), *Fan Fiction and Fan Communities in the Age of the Internet: New Essays*. Jefferson: McFarland.
- Hesmondhalgh, D. (2005). Subcultures, Scenes or Tribes? None of the Above. *Journal of Youth Studies*, 8(1), 21–40. <https://doi.org/10.1080/13676260500063652>
- Hodkinson, P. (2002). *Goth: Identity, Style, and Subculture*. Oxford & New York: Berg.
- Hodkinson, P. (2003). “Net.Goth”: Internet Communication and (Sub)Cultural Boundaries. In D. Muggleton, & R. Weinzierl (Eds.), *The Post-Subcultures Reader* (pp. 285–298). Oxford & New York: Berg.
- Hodkinson P. (2016). Youth Cultures and the Rest of Life: Subcultures, Post-Subcultures and Beyond. *Journal of Youth Studies*, 19(5), 629–645. <https://doi.org/10.1080/13676261.2015.1098778>
- Hui, A., Schatzki, T., & Shove, E. (2017). Introduction. In A. Hui, T. Schatzki, & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (pp. 1–7). New York: Routledge.
- Law, J., & Lien, M.E. (2013). Slippery: Field Notes in Empirical Ontology. *Social Studies of Science*, 43(3), 363–378. <https://doi.org/10.1177/0306312712456947>
- Leblanc, L. (1999). *Pretty in Punk: Girls’ Gender Resistance in a Boys’ Subculture*. New Brunswick: Rutgers University Press.
- Leow, H.M.A. (2011). Subverting the Canon in Feminist Fan Fiction: Concession. *Transformative Works and Cultures*, 7. <https://doi.org/10.3983/twc.2011.0286>
- Liebler, R., & Chaney, K. (2007). Canon vs. Fanon: Folksonomies of Fan Culture. *MIT Media in Transition*, 5.
- Lien, M.E., & Law, J. (2011). “Emergent Aliens”: On Salmon, Nature, and Their Enactment. *Ethnos*, 76(1), 65–87. <https://doi.org/10.1080/00141844.2010.549946>
- Lohman, K. (2017). *The Connected Lives of Dutch Punks: Contesting Subcultural Boundaries*. London: Palgrave.
- Magaudda, P. (2009). Ridiscutere le Sottoculture. Resistenza Simbolica, Postmodernismo, Disuguaglianze Sociali. *Studi Culturali*, 6(2), 301–314.
- Miles S. (2000). *Youth Lifestyles in a Changing World*. Maidenhead: Open University Press.
- Moore, R. (2004). Postmodernism and Punk Subculture: Cultures of Authenticity and Deconstruction. *The Communication Review*, 7(3), 305–327. <https://doi.org/10.1080/10714420490492238>
- Moore, R. (2010). *Sells Like Teen Spirit: Music, Youth Culture, and Social Crisis*. New York, London: NYU Press.
- Mudu, P., & Piazza, G. (2016). Not Only Riflusso: The Repression and Transformation of Radical Movements in Italy between 1978 and 1985. In K. Andresen, & B. van der Steen (Eds.), *A European Youth Revolt: European Perspectives on Youth Protest and Social Movements in the 1980s* (pp. 112–126). London: Palgrave.
- Muggleton, D. (2000). *Inside Subculture: The Postmodern Meaning of Style*. Oxford & New York: Berg.

- Muggleton, D., & Weinzierl, R. (2003). What is “Post-subcultural Studies” Anyway? In D. Muggleton & R. Weinzierl (Eds.), *The Post-subcultures Reader* (pp. 3–23). Oxford: Berg.
- Nacci I. (2018). Cyberpunk e “Decoder.” In Moicana (Ed.), *Università della Strada. Mezzo Secolo di Controcultura a Milano* (pp. 137–150). Milano: Agenzia X.
- Newman, J. (2008). *Playing with Videogames*. London & New York: Routledge.
- O’Connor, A. (2002). Local Scenes and Dangerous Crossroads: Punk and Theories of Cultural Hybridity. *Popular Music*, 21(2), 225–236. <https://doi.org/10.1017/S0261143002002143>
- O’Connor, A. (2003). Punk Subculture in Mexico and the Anti-globalization Movement: A Report from the Front. *New Political Science*, 25(1), 43–53. <https://doi.org/10.1080/0739314032000071226>
- O’Connor, A. (2004). Punk and Globalization: Spain and Mexico. *International Journal of Cultural Studies*, 7(2), 175–195. <https://doi.org/10.1177/1367877904044252>
- O’Connor, A. (2008). *Punk Record Labels and the Struggle for Autonomy: The Emergence of DIY*. Lanham: Lexington Books.
- O’Connor, A. (2016). Towards a Field Theory of Punk. *Punk & Post Punk*, 5(1), 67–81. https://doi.org/10.1386/punk.5.1.67_1
- Persello, M. (2016). Peripheral Subcultures. The First Appropriations of Punk in Germany and Italy. In P. Guerra & T. Moreira (Eds.), *Keep It Simple, Make It Fast. An approach to Underground Music Scenes*, Vol. 2 (pp. 93–98). Porto: Universidade do Porto.
- Piano, D. (2003). Resisting Subjects: DIY Feminism and the Politics of Style in Subcultural Production. In D. Muggleton & R. Weinzierl (Eds.), *The Post-Subcultures Reader* (pp. 253–265). Oxford: Berg.
- Postill, J. (2010). Introduction: Theorising Media and Practice. In B. Bräuchler, & J. Postill (Eds.), *Theorising Media and Practice* (pp. 1–32). New York & Oxford: Berghahn Books.
- Powell, A. (2007). God’s Own Medicine: Religion and Parareligion in U.K. Goth Culture. In M. Bibby & L.M.E. Goodlad (Eds.), *Goth: Undead Subculture* (pp. 357–374). Durham, London: Duke University Press.
- Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243–263. <https://doi.org/10.1177/13684310222225432>
- Scharf, N. (2011). *Worldwide Gothic: A Chronicle of a Tribe*. Shropshire: Independent Music Press.
- Schatzki, T.R. (1996). *Social Practices. A Wittgensteinian Approach to Human Activity and the Social*. Cambridge: Cambridge University Press.
- Schatzki, T.R. (2001). Introduction. Practice Theory. In T.R. Schatzki, K. Knorr-Cetina, & E. von Savigny (Eds.), *The Practice Turn in Contemporary Theory* (pp. 10–23). London: Routledge.
- Schatzki, T.R. (2002). *The Site of the Social: A Philosophical Account of the Constitution of Social Life and Change*. University Park: Pennsylvania State University Press.
- Schatzki, T.R. (2012). A Primer on Practices. Theory and Research. In J. Higgs, R. Barnett, S. Billett, M. Hutchings, & F. Trede (Eds.), *Practice-Based Education: Perspectives and Strategies* (pp. 13–26). Rotterdam: Sense Publishers.
- Schatzki, T.R., Knorr-Cetina, K., & Savigny, E. von (Eds.). (2001). *The Practice Turn in Contemporary Theory*. London: Routledge.
- Shildrick, T., & MacDonald, R. (2006). In Defence of Subculture: Young People, Leisure and Social Divisions. *Journal of Youth Studies*, 9(2), 2006, 125–140. <https://doi.org/10.1080/13676260600635599>

- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. London: Sage.
- Spracklen, K., & Spracklen, B. (2018). *The Evolution of Goth Culture: The Origins and Deeds of the New Goths*. Bingley: Emerald.
- Stahl, G. (2003). Tastefully Renovating Subcultural Theory: Making Space for a New Model. In D. Muggleton & R. Weinzierl (Eds.), *The Post-Subcultures Reader* (pp. 27–40). Oxford: Berg.
- Straw, W. (1991). Systems of Articulation, Logics of Change: Communities and Scenes in Popular Music. *Cultural Studies*, 5(3), 368–388. <https://doi.org/10.1080/09502389100490311>
- Thompson, S. (2012). *Punk Productions: Unfinished Business*. Albany: SUNY Press.
- Thornton, S. (1995). *Club Cultures: Music, Media and Subcultural Capital*. Cambridge: Polity Press.
- Tosoni, S. (2015). Subculture Giovanili, in Italia Terra Incognita. *Vita & Pensiero*, 3, 114–119.
- Tosoni, S. (2015b). Not Real Punx, but Kindred Creatures (Creature Simili): Enacting Dark in Milan, Italy. Paper presented at *Keep It Simple, Make It Fast! Crossing Borders of Underground Music Scenes*, Porto, Portugal, 15–17 July 2015.
- Tosoni, S. (2017). Of Goths and Salmon: A Practice-Based Exploration of Subcultural Enactments in 1980s Milan. In P. Guerra & T. Moreira (Eds.), *Keep it Simple, Make it Fast! An Approach to Underground Music Scenes*, Vol. 3 (pp. 279–288). Universidade do Porto: Porto.
- Tosoni, S., & Turrini, V. (2018) Controlled Disconnections: A Practice-Centred Approach to Media Activities in Women's Solo Travelling. In L. Peja, N. Carpentier, F. Colombo, M.F. Murru, S. Tosoni, R. Kilborn, L. Kramp, R. Kunelius, A. McNicholas, H. Nieminen, & P. Pruulmann-Vengerfeldt (Eds.), *Current Perspectives on Communication and Media Research* (pp. 283–302). Bremen: Edition Lumière.
- Tosoni, S., & Zuccalà, E. (2013). *Creature Simili. Il Dark a Milano negli Anni '80*. Milano: Agenzia X.
- Tosoni, S., & Zuccalà, E. (forthcoming). *Italian Goth Subculture — Kindred Creatures and Other Dark Enactments in Milan, 1982–1991*. London: Palgrave.
- Wallach, J. (2008). Living the Punk Lifestyle in Jakarta. *Ethnomusicology*, 52(1), 98–116.
- Welch, D., & Warde, A. (2017). How Should We Understand “General Understandings”? In A. Hui, T. Schatzki, & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (pp. 183–196). New York: Routledge.
- Williams, J.P. (2007). Youth-Subcultural Studies: Sociological Traditions and Core Concepts. *Sociology Compass*, 1(2), 572–593. <https://doi.org/10.1111/j.1751-9020.2007.00043.x>
- Woodman D. & Wyn J. (2015). Holding It All Together: Researching Time, Culture and Belonging after “Subcultures”. In S. Baker, B. Robards, and B. Buttigieg (Eds.), *Youth Cultures and Subcultures: Australian Perspectives* (pp. 43–52). Farnham: Ashgate.
- Woolgar, S., & Lezaun, J. (2013). The Wrong Bin Bag: A Turn to Ontology in Science and Technology Studies? *Social Studies of Science*, 43(3), 321–340. <https://doi.org/10.1177/0306312713488820>
- Wright, S. (2000). “A Love Born of Hate”: Autonomist Rap in Italy. *Theory, Culture & Society*, 17(3), 117–135. <https://doi.org/10.1177/02632760022051257>

Simone Tosoni: Department of Communication and Performing Arts, Università Cattolica del Sacro Cuore (Italy)

ORCID <http://orcid.org/0000-0003-4842-0824>

✉ simone.tosoni@unicatt.it; <https://docenti.unicatt.it/ppd2/it/#/it/docenti/14005/simone-tosoni/profilo>

Simone Tosoni is Associate Professor in Sociology of Cultural Processes at Università Cattolica del Sacro Cuore, Milan, Italy. His research interests focus on practice theories, urban communication and subcultures. He is a founding member and vice-chair of the ECREA Temporary Working Group “Media & The City” and a member of the Interdisciplinary Network for the Study of Subcultures, Popular Music and Social Change. Among his publications is *Entanglements: Conversations on the Human Traces Of Science, Technology, and Sound* (with Trevor Pinch, MIT Press, 2017).

Practice Theory and Media Infrastructures: “Infrastructural Disclosures” in Smartphone Use

Paolo Magaudda*

Tiziana Piccioni†

Submitted: May 29, 2019 – Accepted: December 12, 2019 – Published: December 31, 2019

Abstract

The article concentrates on the contamination between practice theory and infrastructure studies by focussing on the routines and practices related to smartphone use. In order to address on an empirical ground the infrastructural implications of smartphone-based practices, the article presents the results of a qualitative research, based on a total of 26 qualitative interviews and one focus group with young smartphone users, residents of different cities of the Veneto Region in Italy. Theoretically, the article introduces the notion of *infrastructural disclosure*, which is adopted in the empirical analysis as an analytical tool to favour the visibility of infrastructural implications in smartphone practices. Infrastructural disclosures do not represent qualities of infrastructures but analytical strategies that bring to light the often “invisible” and “taken-for-granted” infrastructural qualities in smartphone use. On this basis, the article addresses five main dimensions of infrastructural disclosures in smartphone use: electricity, radio signal, data, operative systems and platforms. Finally, after the analysis of these five main infrastructural dimensions, the authors outline in the conclusion how a stronger emphasis on infrastructural relationships could improve our understanding of today’s digital media practices.

Keywords: Practice theory; media infrastructure studies; smartphone; digital media; infrastructural disclosures.

Acknowledgements

The research upon which the article is based has been funded by the IUSVE University in Venice and has been coordinated by Michela Drusian, Paolo Magaudda and Marco Scarcelli. In compliance with Italian academic folkways, Paolo Magaudda and Tiziana Piccioni acknowledge that the former wrote paragraphs 1, 2, 3, 4 and 8 and the latter wrote paragraphs 5, 6 and 7.

* FISPPA Department, University of Padova (Italy); ✉ paolo.magaudda@unipd.it;  <https://orcid.org/0000-0003-0830-8299>

† Free University of Bozen – Bolzano (Italy)

1 Introduction

This article explores the contamination between practice theory and infrastructure studies by focussing on practices and routines related with the use of smartphones. Theoretically, the practice-based approach elaborated by Shove and colleagues (Shove, Hand, Ingram & Watson, 2007; Shove, Pantzar & Watson, 2012) on the basis of theoretical work by Schatzki, Knorr Cetina and Von Savigny (2001) and Reckwitz (2002) had the merit — among other things — to integrate in a robust way the role of materiality and technology into the study of social practices, outlining how technological devices like the refrigerator (Shove & Southerton, 2000), consumer electronics (Gram-Hanssen, 2010) or the iPod (Magaudda, 2011) play a role in the “co-evolution” of social routines and activities. Only very recently have authors in practice theory (Shove, Watson & Spurling, 2015; Shove, 2016; Shove & Trentmann, 2019) started to explore more explicitly the idea that technologies are not just artefacts and devices, but they also exist in infrastructures and socio-technical relationships that occur at larger scales, arguing that different “forms of infrastructural provision co-constitute ‘needs’ and practices” and that “infrastructures and practices spurred each other on and become entangled in a dynamic that simultaneously constitutes particular ways of life and related patterns of consumption” (Shove, Trentmann & Watson, 2019, p. 4).

This article aims to advance this ongoing debate in practice theory that connects the study of social practices with the infrastructural quality of today’s technologically-mediated social organization. To do this, we explore empirically the nexus between social practices and infrastructures by looking at the situated uses of mobile digital technologies and notably smartphones. Our starting reflection is that much work has yet to be done to explore how technologies are important not only for being isolate artefacts, carrying “scripts” and “configurations” (Woolgar, 1990; Akrich, 1992), but also how they are relevant for their “infrastructural qualities,” as several everyday technologies have increasingly turned into complex interfaces through which people primarily interact with wider networks, platforms and services. This shift from *technology-as-material-artefacts* to *technology-as-infrastructural-interfaces* is particularly relevant in relation to digital media technologies and *in primis* smartphones, which are distinctively characterized by opening up the possibility to enact multiple activities.

In order to address on an empirical ground the infrastructural implications of smartphone-based practices, in this article we present the results of a qualitative research on young smartphone users we carried out in 2017–2018. The research data are based on a total of 26 qualitative interviews and one focus group with young smartphone users, residents in different cities of the Veneto Region in Italy (in the northeast of the country), between 18 and 30 years old. The research’s goal was to collect narratives related to smartphone use in various dimensions of everyday life. In line with a grounded theory approach (Charmaz, 2006), a first round of data-coding process allowed to engender descriptive categories related to the smartphone use; then, on the basis of this work, a second coding process was performed to generate theory-laden labels, subsequently adopted in the discussion of research findings and to identify five infrastructural dimensions that, therefore, emerged as outcome of the interpretative process.

Before focussing on the analysis of interviews, in section 2 we will discuss more broadly the theoretical background related to the relationship between infrastructures and practice theory; here we will also introduce the notion of *infrastructural disclosure*, which will be adopted in the empirical analysis as an analytical tool to let the infrastructural interactions between smartphones and their users emerge in a clear way. Infrastructural disclosures occur in moments in which routines and ordinary flows of the practices related to the smartphone (like messaging, calling, searching the web, listening to music and so on) are disrupted in a tangible way by the smartphone’s infrastructural properties. These infrastructural disclosures do not represent qualities of the infrastructures but rather analytical strategies that bring to light in a manifest way the often “invisible” and “taken-for-grated” (Star & Ruhleder, 1996, p. 113) infrastructural qualities of smartphone practices and how these are fully embedded into multiple layers of socio-technical infrastructures. Then, moving from these theoretical premises, in the following sections (from 3 to 7), we will address five main dimensions of infrastructural disclosures in smartphone use. Finally, in the conclusion we will discuss more in depth how a deeper consideration of the infrastructural dimensions in mobile technology uses will improve our understanding of today’s digital media practices.

2 Infrastructures, Practices and Infrastructural Disclosures

As previously mentioned, while practice theory has been crucial for advancing the understanding of materiality of artefacts and technologies for the studying of ordinary consumption, only very recently have scholars in this area started to look more directly at the intersection between infrastructure studies and practice theory (Shove, Watson & Spurling, 2015; Shove, 2016; Shove & Trentmann, 2019). In fact, early contributions in practice theory (Shove, Hand, Ingram & Watson, 2007; Shove, Pantzar & Watson, 2012) somehow shared some of the same limits that affected other nearby approaches to technology uses, notably the limit that technology is mostly understood in terms of a “user-device” relationship, without considering how today’s technologies are increasingly embedded and nestled in wider sets of digital infrastructures. On the contrary, as it has been more recently outlined by Elizabeth Shove (2016), infrastructures and practices co-evolve, and a closer look at infrastructures can help to enlighten how distinctive social practices diffuse and how they can contribute to explaining practices’ obduracy and flexibility.

Despite this recent interest in infrastructures among practice theory practitioners, at least two paths need to be further explored in this direction. The first path to be further explored is thematic, as the ongoing work in practice theory about infrastructures is mainly focussed on issues related to the sectors of environment, energy consumption and mobility, and is only marginally (with the exception of Morley 2019) focussed on mobile communication technologies platforms and, in general, how people are imbricated in digital data flows in their everyday practices. To enrich the debate, the present article contributes to expanding the nexus between social practices and infrastructures by focussing directly on the practices related to the smartphone, the most common mobile digital technology in today’s ordinary life.

Moreover, as a second path, we also argue that broader theoretical and conceptual work has to be done to expand the intersections between practices and infrastructures. Indeed, while works from Thomas Hughes (1983) or Graham and Marvin (2001) are relevant points of departure, as Shove and Trentmann (2019) outlined in their introduction to a recent book on practices and infrastructure, what remains to be highlighted in a clearer way is the contribution from the field of “infrastructure studies.” This scholarship departed from the work of Susan Leigh Star and other colleagues (Star & Ruhleder, 1996; Star & Bowker, 1999), gaining substantial interest in *Science & Technology Studies* in the last decade (i.e., Edwards, 2003; Bowker, Baker, Millerand & Ribes, 2009; Mongili & Pellegrino, 2014) as well as in liminal fields like participatory design (i.e. Egyedi & Mehos, 2012; Dantec & DiSalvo, 2013; Pipek & Wulf, 2009). In Star and Ruledher’s work we can already recognize a robust nexus between practices and infrastructures, where the latter are seen as immanently linked “with conventions of practice” (Star & Ruhleder, 1996, p. 113), thus explicitly highlighting the mutual shaping between infrastructures and practices, as — as they outlined — an “infrastructure occurs when local practices are afforded by a larger-scale technology” (*ibidem*, p. 114).

Moreover, the need to take into account more closely the theoretical intersections between practices and infrastructures also requires that we include in the framework the ongoing debate on the role of infrastructures in media and communication studies. Indeed, in the last few years the infrastructural qualities of digital media have been underlined by several media scholars, who converged toward what can be addressed as an “infrastructural turn” in the study of digital media (i.e. Larkin, 2008; Peters, 2015; Parks & Starosielski, 2015; Musiani, Cogburn, DeNardis & Levinson, 2016; Balbi, Delfanti & Magaudo, 2016). As a result, the notion of infrastructure has influenced several media and communication scholars, who adopted an infrastructural perspective to disentangle the complex intersection of media materiality, dematerialized digital content, data organization and collective media practices. For instance, media theorist Benjamin Peters has proposed an *infrastructuralist approach*, which is “a way of understanding the work of media as fundamentally logistical,” in the sense that “the job of logistical media is to organize and orient, to arrange people and property, often into grids. They both coordinate and subordinate, arranging relationships among people and things” (Peters, 2015, p. 37). As Lisa Parks remarked

since infrastructures cannot be captured in a single frame, we must read media with an *infrastructural disposition* — that is, when viewing/consuming media we must think not only about what they represent and how they relate to a history of style, genre, or meanings, but

also think more *elementally* about what they are made of and how they arrived (Parks, 2015, p. 357).

The notion of infrastructure allows us to recognize some important characteristics of digital media and communication: from the changing relevance of technical materiality in communication processes to the shift from the use of single artefacts to interconnected artefacts, up to the increasing importance of being always connected for our “deeply mediated” society (Couldry & Hepp, 2017). A specific emphasis has been recently put on the relationship between media infrastructures and platforms (Plantin, Lagoze, Edwards & Sandvig, 2018; Plantin & Punathambekar, 2019; Helmond, Nieborg & van der Vlist, 2019), by examining the convergence of the infrastructural nature of many internet-based services and the emerging role of platforms in different kinds of media and communication domains (van Dijck, Poell & de Waal, 2018; Gillespie, 2018). Looking at the nexus between platforms and infrastructures means considering not only issues like the way the stakeholder–user relationship is mediated by platforms and infrastructures at different scales but also the ideological ground on which social practices take form through these platforms. Concerning more specifically smartphone practices, recently Maren Hartmann (2017) adopted the notion of infrastructure by taking into consideration the role of electricity in relation to smartphone use. Electricity undoubtedly is a fundamental infrastructural dimension in shaping smartphone practices, even though the infrastructural qualities of these devices go well beyond this dimension and include a wider set of stratified infrastructural dimensions overlapping each other.

Hence, to unfold these multiple and stratified infrastructural layers that contribute to the co-shaping of smartphone-related practices, in the following pages we present five main dimensions of *infrastructural disclosures*. These infrastructural disclosures are analytical tools allowing us to manifest how the practices related to smartphones are fully embedded in multiple layers of socio-technical infrastructures and how, therefore, these also evolve and change as a consequence of how users adapt their activities to the limitations and opportunities produced by a smartphone’s infrastructural qualities. Thus, the notion of infrastructural disclosure is in line to that of *infrastructural inversion*, a methodological strategy introduced by Geoff Bowker (1994) and subsequently developed further by Bowker and Star (1999) to foreground the invisible work that underlies information infrastructures, focussing on those activities that warrant the functioning of infrastructure, like maintenance, upgrade and repair. Infrastructural inversions consist, indeed, in disclosing infrastructure’s routines to expose taken-for-granted practices as well as the standards and the invisible labour required for make them working and — as the authors wrote — in “learning to look closely at technologies and arrangements that, by design and by habit, tend to fade into the woodwork” (Bowker & Star, 1999, p. 34). We will present several examples of *infrastructural disclosures*, which empirically correspond to moments or situations when the ordinary flow of smartphone practices is interrupted by some kind of issue, failure or limitations directly connected with the smartphone’s infrastructural nature. More specifically, in the following sections we will address five main dimensions of infrastructural disclosures that emerged from the interviews with smartphone users and are related to electricity, radio signal, data, operative systems and platforms.

3 Electricity: “Obviously, the Battery Does Not Last at All”

The first dimension of infrastructural disclosures related to smartphone use is a quite fundamental one, being related to the smartphone’s dependence on battery operation and, therefore, on the electrical grid. In fact, although over the years the batteries of these devices perform increasingly better, their duration, especially in the case of more intensive uses (for example browsing online, using streaming services or navigation apps), remains a highly problematic issue.

The dependence of the smartphone on electricity and battery life is reflected in different forms in the co-shaping of smartphone practices. First, the need to carefully adapt smartphone usage to battery constraints is recurrent, for instance limiting some of the functions of the device, especially in the last portion of the day, when it is common to find the battery low. The need to reduce the use of some applications (“apps”) is so important that a specific feature to perform this task has been incorporated by manufacturers into the smartphone software, by including automated restrictions provided by the op-

erating system. Let us consider, for example, the experience of Alberto, who told us about his advanced system of battery savings, which directly decides which app can be used at certain times of the day:

So, basically I have this app, which I use relatively rarely, that has mostly the purpose of “hibernating” applications and therefore to reduce its use, to reduce [the consumption of] the battery. Basically, the applications, even if disabled, are active in the background, and therefore by using this app in theory you should save some battery. Then, my phone is always in “energy saving mode” and in extreme cases I switch on the “advanced energy saving,” which essentially turns the phone to black and white, to disable all applications, basically allowing me to use just five or six main applications: phone, messaging, Facebook, all in black and white, and even the camera is not available. WhatsApp is available, the calculator is available, the clock, but that’s enough (Alberto, 19).

The problems related to electricity and battery life in smartphone practices assumed a material form in a distinct accessory, the *powerbank*, which has become quite common in the last decade, following the transition from traditional mobile phones to smartphones. The powerbank is a portable battery charged through the electrical grid and then used as a portable power supply when the smartphone’s batteries run out. The powerbank helps reveal the smartphone infrastructural dependence by the electric infrastructure and, at the same time, it also represents a technical resource allowing new and distinctive uses of the smartphone. This last possibility emerged from the account by Elisa, who described that she bought one of these portable batteries after the transition from a traditional mobile phone to a smartphone, at first just to use it while traveling abroad; however, rather surprisingly, the powerbank turned out to be a strategic accessory in domestic practices:

In the beginning, when I made the transition from an old-fashioned phone to a smartphone, the battery obviously did not last at all compared to the Nokia 2210 phone, which lasted as long as two or three days. The smartphone [lasts] one day and “bye bye.” I was prepared, in the sense that I saw reviews before buying it and I understood that I had to [accept it]. I adapted and soon I bought a battery, what’s the name? A powerbank! [...] I bought it more than anything else for my travels, in the sense that when you’re abroad it is much more difficult to find a socket, so I bought that especially for this reason. Then sometimes I use it at home, because maybe you get home after a day out, you need to use WhatsApp with your friends, the phone is already discharged, because you spent a day out, so I plug the powerbank in and can still chat around home (Elisa, 25).

These examples reveal a distinctive level — that of the electric infrastructure — where infrastructural disclosures in smartphone practices become manifest. These disclosures show us that, although smartphones allow diversified practices in mobility, the dependence on the electrical infrastructure contributes to shape users’ practices in different forms. First, many users should adapt their practices to the constraint coming from their battery’s limitation, reducing some kinds of uses, especially in the second part of the day. Second, the same smartphone manufacturers included in their devices automated features to cope with battery limitations, moulding these devices on the basis of their infrastructural qualities. Finally, a series of specific accessories, primarily the powerbank, deriving from the smartphone’s dependence on the electricity infrastructure, have become more widespread, expanding the set of uses and practices.

4 The Signal: “It is More a Problem of Connecting to the Network”

A second dimension of infrastructural disclosures in smartphone practices is represented by the need for mobile devices to be connected to a cellular network and to physical wireless towers. In recent years, the signal coverage by the major mobile phone carriers has improved in many countries, including Italy, where, according to data from the European Commission, phone carriers offer coverage in 3G (HSPA technology) to 99.4% of residents in the national territory (IHS Markit, 2018, p. 126). However, in practice, especially (but not only) outside urban areas, the signal is sometimes absent or the signal strength is

not good enough to use more advanced features, like streaming content or accessing cloud storage. This is not so much because the official coverage does not correspond to the real service offered but rather because daily usage conditions can introduce specific issues. For example, a building's architectural structure affects the signal, as well as the physical distance from the towers that actually transmit the signal or the number of users connected simultaneously to a specific tower. In addition, the technical quality of the reception is also important, as more intensive activities with the smartphone require not only the presence of a signal but also of an advanced communication standard (3G or 4G) that is able to allow activities based on demanding data use, like music listening and multimedia streaming services. For this reason, a recurring thread in the narratives produced by the interviewees is that sometimes it is not possible to be connected, as for instance Elisa has told us:

Sometimes Facebook runs slowly or things like that, but this is more about a problem of connecting to the network, so I cannot say that it is a fault of the smartphone (Elisa, 25).

The most emblematic example of situated infrastructural disclosure related to the smartphone's dependence on the cellular network emerged in an exchange with Enrica during the interview. We asked her which app she had recently uninstalled from her smartphone in order to explore challenging aspects in smartphone practice. Not remembering which app had been uninstalled, Enrica decided to check the list of these apps directly through her account on the Play Store, the Android app-distribution platform. However, probably due to the building structure of the venue where we were doing the interview, it was not possible to access Enrica's list:

Maybe, on the Play Store there should be a list of applications that have been installed [and then removed]. There should be all of them. Now... I do not know why... it does not even... it does not even connect! [...] I do not like this connection issue! It happens sometimes, I do not know if it's the operator's fault or the phone's fault, but I think it's the operator, because other people have these same problems, the internet connection does not start (Enrica, 19).

Although infrequent, the cases when the smartphone does not work properly because it does not receive the carrier's signal is not only a common problem in smartphone practices but also one in which users experience what has been referred to as a feeling of impotence. As Rino described during the interview, "people go out of their mind" when their device no longer has a signal:

I'll give you an example. When I'm watching a football match or a music concert, I see this compulsive tendency [to constantly check their smartphone]. And then some people go crazy if the phone suddenly does not receive a signal or it turns off (Rino, 29).

In short, although it is infrequent to lack a carrier signal, these cases represent eloquent infrastructural disclosures in smartphone practices, reminding us that the smartphone can be used suitably as long as it remains physically connected, via radio waves, to a tower that manages the connections to the cellular network. As we have seen, the disconnection from the cellular infrastructure is not an aspect with merely technical consequences; these infrastructural issues have a direct impact on people's practices and even on the ways they experience their existential condition based on being always connected.

5 Data: "Clearly it Consumed my Gigabytes"

The need for a smartphone to have access to digital data constitutes the third dimension of infrastructural disclosures we will now outline. A permanent connection, in fact, distinguishes the smartphone from traditional mobile phones, introducing a further infrastructural level in smartphone-based practices. The clearest aspect regards, on the one hand, the amount of gigabytes available to users, generally established in the contract with a telephone carrier, and on the other hand, how these gigabytes are managed, especially in relation to those services that are demanding in terms of data, such as watching videos on YouTube or listening to music on *Spotify*. At the time of the interviews in 2017, most commercial offers in Italy did not include more than 2 gigabytes for standard contracts.

Our respondents often outlined that the limitations related to data management were very relevant for their smartphone practices, as they had to develop routines compatible with keeping their data consumption under control and pay attention to their activities online. A common practice is using specific online services only when a Wi-Fi network is available, in order not to affect the amount of data made available by the carrier. This is, for example, what Simone told us in this regard:

Well, to download applications or photos on my Google account [I use Wi-Fi], otherwise for normal use I also use the data network. I am a cautious person, in the sense that I don't watch videos on Facebook on YouTube. Or, if I watch them, I watch only one or two of them, because I really want to, but I know what I'm going to do, so I know more or less how much I consume, I know how much it [data] remains. I am very careful, personally. But so many times my girlfriend will say to me, "I've finished the internet! How is it possible?!" And I tell her, "Take a look at the settings of the data network, see what you have consumed and limit yourself in consumption" (Simone, 20).

The management of the limited data available is an example of how smartphone's infrastructural implications significantly contribute to shaping users' practices related to accessing online content. Data management participates in shaping several practices, especially in terms of their distribution over time and space. To save data, users can choose to take advantage of Wi-Fi coverage when they are in places where this option is available, and they can decide to use certain services only when connected to a Wi-Fi network. The following experience described by Elisa, in fact, shows us how the rhythms of everyday life can be retraced on the basis of the transitions from one Wi-Fi network to another, for example from the home network to the one available at the workplace:

I almost always connect to Wi-Fi. If there is one, I do it very willingly, of course. The rest of the time, let's say this: I'm at work for eight hours and I have Wi-Fi; then, if I go out and, basically, I easily turn on the data connection. So I do not have many problems, because I know that when I go home, I'll have the Wi-Fi again, so I feel pretty safe [...]. [Consuming all data] was common with me at the beginning, because during the early period with my phone I started to watch a lot of videos on YouTube with my friends and I didn't have a Wi-Fi connection and clearly this consumed all gigabytes, so I realized it and said to myself, "Okay, it's something I do not have to do anymore!" (Elisa, 25).

As seen in several interviews, the early stages in a smartphone's use have been characterized by "wrong" uses — especially characterised by "things that should not be done" in relation to infrastructural constraints linked to data consumption. Thus, during the "domestication" process of this media technology (Silverstone & Hirsh, 1992), users like Elisa and Simone also learned to limit themselves, to "not consume all the gigabytes" and, consequently, adopted everyday practices more compatible with the prudential management of available data.

Infrastructural disclosures based on data management in smartphone use helps demonstrate how the dependence by a data infrastructure is not only able to disrupt the flow of practices but also to discipline along the time how people develop their overall smartphone use. Moreover, data-related infrastructural disclosures, more strikingly than, for instance, the dependence on electricity or the availability of the signal, show how smartphone practices significantly depend not just on infrastructures' technical features but also on how these infrastructural features are embedded both in commercial offers by carriers and domestication processes performed by their customers.

6 Operating Systems: "... and Then It Started to Get Stuck on Updates"

A fourth dimension of infrastructural disclosures in smartphone practices concerns the role of operating systems, that is, the software that allows these devices to behave more like miniature computers than as traditional telephones. Taking into account operating systems in smartphone practices is essential to grasp another crucial infrastructural quality of smartphones, as well as to understand how smartphones

fit into a wider stratification of practices, especially when compared to previous, mostly voice-based mobile phones. First of all, the presence of an operating system in the device implies, in fact, the possibility of installing apps that offer additional features not available with traditional mobile phones, enabling a virtually endless set of other practices.

However, as we will see, operating systems also constrain users within distinctive paths of smartphone ownership. Indeed, some operating systems can work only with specific devices and not with others, as iOS is installed only on Apple's iPhone, while Google's Android operating system can be installed on all smartphones except those produced by Apple. Operating systems must be constantly updated to work with the new versions of apps that are frequently released by their developers; moreover, operating systems must be learned by their users, who can easily feel compelled, when they have to choose a new smartphone, to buy a device with the same operating system as their previous device.

Choosing between the two most widespread operating systems — Apple iOS or Google Android — is a frequent theme in the dialogues with our interviewees. Several of them often feel compelled to buy a device that has the same operating system as the last device that they owned. This issue can be appreciated, for example, in the story of Elisa, who had recently moved from an Android smartphone to an Apple one:

The iPhone has always caused some doubt in me, because it is a different operating system [...] Those concerns that I had were actually prejudices; namely, I was afraid of not being able to get used to it [...]. Instead, they are just prejudices, as it was more the lack of confidence in myself, and in reality I got used to it quite quickly [...]. However, the fact that I never had an Apple smartphone before made me somewhat reserved. I said: "Hmm, it is an operating system that I'm not used to, and moreover I've always had a Windows computer and so I would be more relaxed with an Android" (Elisa, 25).

When infrastructural disclosures connected to the role of operating systems become apparent, they bring to users' attention those infrastructural aspects that are often taken for granted. In this regard, a crucial stage occurs when an update of the operating system becomes required. In fact, on the one hand software producers (both Apple and Google) regularly release new updated versions of their operating systems; on the other hand, companies that produce apps also distribute new iterations of their software, which often is not compatible with older versions of the operating system. Hence, one of the shared experiences among smartphone users is related to compatibility issues between older smartphone models, new versions of operating systems and new releases of apps. This infrastructural interweaving of smartphone elements emerged clearly from the story of Antonio, who described his experience with an iPhone 4 (a model produced in 2010), which was still working, but was no longer able to receive updates from Apple:

Then I bought the iPhone, the 4 series, and it lasted a long time, lasted three or four years and then started to get stuck on updates [...] it could not install them [...]. I have been lucky, because I didn't install the last available update, the iOS 7 was the update, one of the first major updates they did. And the iPhone 4 could be rather impaired, because it did not support it and therefore used to crash (Antonio, 19).

Moreover, this fourth infrastructural disclosure is connected with the fact that users are pressed to remain tied to a specific operating system: on the one hand because, as described by Elisa, the owned operating system's features are already familiar, and on the other hand, due to the need to constantly follow software updates released by software producers, as described by Antonio. This situation outlines one of the issues most often raised by smartphone users: the pressure to change smartphones not because they break down but because the device does no longer fits into the wider infrastructural alignment between operating systems, software and apps. This situation has been experienced as a sort of "cage" into which the user has the perception of being somehow harnessed, as in the following story told by Fabio:

I don't have real problems with the smartphone, but if I have to choose one I would say the issue of updates. Producers are constantly updating the iOS. So far [my smartphone] is

updated, it supports everything, but they force you a little to stay with their product. This is a negative aspect, in my opinion, because, for example, I have decided to stay with that brand, since it is a decision already made, [but] obviously when it will not update anymore, I will understand that there is a problem and I will get another one. So in my opinion Apple has developed an exceptional [...] system in terms of marketing, because they actually bind the customer (Fabio, 30).

Again, this constrictive experience characterizing the relationship between operating systems and smartphone practices is not purely a matter of technical limitations: once the user is harnessed in these infrastructural paths, in fact, he easily ends up chasing the cycles of models' renewal and software updates sustained by manufactures' strategies. In short, this fourth infrastructural level of disclosures highlights how smartphone practices are co-shaped by an operating system's infrastructural nature.

7 Platforms: "It's Like an Indelible Memory"

The fifth and final dimension of infrastructural disclosures is related to digital platforms, understood as those distinctive corporate entities that increasingly organize our experience in the digital world (van Dijck et al., 2018) and that, consequently, are fundamental in the shaping of smartphone practices. In fact, services like *Facebook*, *Google* and *YouTube*, but also *Drop Box*, *Spotify* and *AirBnB*, are not just apps contained within our smartphone, nor are they just companies that offer a service; rather, they are complex and multifaceted entities, increasingly central in the new digital capitalism (Srnicek, 2017). Looking at these entities as "platforms" and not just as apps highlights their ability to reconfigure relationships, practices and activities, and to emphasise how people's activities are soundly dependent on the technological, economic and political choices by particular companies (Gillespie, 2018).

Among the many relevant platforms, Google is one of the most obvious subjects of examination, as it articulates in a more or less integrated umbrella a series of services ranging from email to address books, photo storing to web searching, maps to shopping choices (Plantin et al., 2018). For these reasons, Google (together with Amazon, Apple, Facebook and Microsoft) has been defined as an "infrastructural platform," as it "form[s] the heart of the ecosystem upon which many other platforms and apps can be built" and plays the role of "gatekeeper" for other different digital activities (van Dijck, Poell & de Waal, 2018, pp. 12–13). It is not surprising, therefore, that smartphone narratives are relentlessly characterized by their reference to the role of Google. The following words extrapolated from Sandro's story exemplify, for instance, how the logic and constraints of the Google platform directly influence the management of online photo storage, through the cloud services made available on a free basis but with options and limitations:

In my Google account, there is the Google Photo option, which you can allow to back up with the function "only in charge," so I leave it at night with the Wi-Fi on, I plug it in to charge, it uploads the photos and I know that they will not be lost in the unfortunate event something happened to the phone [...]. It is free up to 15 gigabytes. But there are limitations too, in the sense that Google makes available in the cloud 15 gigabytes, but the photo uploading can take place with two possibilities: the first is in low resolution or, better, it is not a bad resolution, but it lowers the quality of the photos, and this does not affect the amount of memory you use in the cloud; if you load them at the maximum resolution, this easily it counts against your storage limit and, once the 15 gigabytes are exceeded, you have to pay to get more space (Sandro, 26).

Another example of infrastructural disclosure related to the role of platforms regards *Spotify*, one of the most popular music streaming services, which provided at the beginning of 2019 a catalogue of about 40 million songs listened to by almost 200 million users. Half of these users are paying subscribers of a premium service, which gives them options not available with the free version. With a paid *Spotify* subscription, music can be browsed or searched through within various parameters, such as the artist's name, the album title or the genre. Users can create and edit playlists, possibly sharing them with other users on social media. Unlike the listening model based on mp3 files, the streaming service of *Spotify*

makes partially obsolete the need to download and own music files and it is a tangible example of cloud computing, when data and services are no longer contained on a device but are managed by data centres from which listeners receive content when they need it. *Spotify* represents a very clear example of how music listening practices are channelled through the platform's logics and its commercial framework, as clearly emerges again from Sandro's description of the difference between the premium and the free version of the service:

The difference is huge, because with the free version you can have your play list, but you have only a random selection; you can't choose the song to play and you have advertising every thirty minutes. Whereas with the paid version of *Spotify*, you can make your play list, choose the order you want, have no advertising and can download the songs onto your phone, so that if you are in a place and there is no cell reception, you can continue to listen to music, whereas with the free version you can't (Sandro, 26).

From this example we can appreciate how the choices made by some of the most important platforms directly affect the way users perform distinctive practices connected in these cases with photography and music. Moreover, it is worth noting that the distinctive infrastructural dimensions involved in these relationships with platforms are constantly intertwined with other infrastructural levels, as occurs in the case of *Spotify Premium*, which allows subscribers to listen to music even when their smartphone is not connected to internet, while the free version does not provide this service. In sum, these concise examples outline the active role of platforms' infrastructural logic in shaping user practices and how platforms contribute to the construction of a specific framework within which smartphone practices are actually articulated by users.

8 Conclusions: Multiple Scales and Multi-Layered Configurations in the Practices-Infrastructures Relationship

The current debate on the role in society of platforms, datafication, algorithms and other crucial digital entities (Kitchin, 2014; Couldry & Hepp, 2017; van Dijk, Poell & de Waal, 2018) has deeply refocused the issues at stake in the integration of digital infrastructures in social practices. Departing from this debate, one of the new directions of inquiry to be further explored is the way in which digital infrastructures are directly intertwined with people's ordinary practices, routines and ordinary everyday rhythms. In this article, we aimed to contribute to this issues by exploring further the relationship between practice theory and the infrastructural qualities of social practices, especially looking to the role of infrastructural dimensions in the shaping of digital media practices connected with the smartphone. Our work explored primarily the influence exerted by smartphone's infrastructural qualities on practices, trying to unfold how smartphone infrastructural qualities contribute in the shaping of common uses of this mobile device that is increasingly important in our everyday life.

To do this, we proposed to adopt a novel analytical tool, the *infrastructural disclosure*, which was used to shed light on particular situations in which a specific infrastructural dimension emerged as clearly co-constitutive of users' practices. In particular, our contribution investigated such a complex interweaving of artefacts, infrastructures and practices on the basis of empirical data made up of 26 in-depth interviews and a focus group with young smartphone users. On the basis of this empirical evidence, we identified five infrastructural dimensions in smartphone practices, illustrating each of them with accounts extracted from user interviews. For instance, we saw how electrical energy could be a fundamental influence on smartphone practices, inducing users to modulate their activities on the basis of this infrastructural constraint; we also saw that infrastructural disclosures can bring to the foreground the relationship between smartphone practices and the network signal, as well as the relevance of the data available with the smartphone contract, as the limited amount of available data directly fosters the adoption of distinctive activities shaping smartphone use. Finally, we focussed on the crucial role of operating systems and the framework of use posed by platform, their mechanism on strategies.

More generally, our analysis of infrastructural disclosures in smartphone use invite to explore more robustly the infrastructural qualities of our technological life, increasingly dependent on infrastructures

digital communication tools. At this regard, in the final remarks of this conclusion we want to quickly address two wider implications of our findings for the study of the relationship between practices and infrastructures.

The first implication regards the *multiple scales* (see Parks & Starosielski, 2015, pp. 7–8) at which digital infrastructures unfold their consequences on people's practices and activities. Indeed, the crucial shift to a situation in which mobile personal devices are complex interfaces to interact with large and complex technical infrastructures should push scholars to multiply the perspectives from which the consequences of digital technologies ought to be addressed. In this sense, while the current debate on digital platforms has largely focussed on macro scales (i.e. their political economies, their wider consequences on contents circulation, their impacts on shared values), much theoretical and empirical work requires to be done to understand how people's situated experiences and practices are actually reshaped and co-evolve together with these processes, occurring at larger scales. In this regard, this work aimed at offering a way to explore the rather micro scale on which infrastructures and practices intersect, outlining some of the distinctive moments when infrastructures emerge from the background in users' experience and lose their typical take-for-granted-ness.

Second, our analysis raises an issue related to the how people's everyday practices based on technological devices are characterised not by the dependence upon *one* crucial digital infrastructure, by rather by their embeddedness into a *multi-layered set* of infrastructures, whose mutual interactions are sometimes more relevant than the singular distinctive features of each of them. Indeed, while we isolated analytically different infrastructural dimensions relevant for the shaping of smartphone practices, we also recognized that practice's features can be understood only as the outcome of the interaction of affordances and constraints pertaining to different, but interrelated infrastructures. Hence, we have seen for instance that platforms' constraints make sense only if we understood them in relation to the limits of data usage posed by mobile carriers; or that the issues related to electricity and battery consumption participate directly to the usability of operating systems and software; or again that the possibility to consume a YouTube video also depends upon the way personal life is arranged on the basis of movements between different Wi-Fi spots between home and workplace.

The *multiple scales* relevant in the use of current everyday technologies and the *multi-layered configuration* of digital infrastructures are two major issues raised by this work and that ought to be explored in further research, in order both to expand the contamination of practice theory with other theoretical traditions and to enrich the current debate on the reconfiguration of everyday life in an age of infrastructured digital media.

References

- Akrich, M. (1992). The Description of Technical Objects. In W. Bijker & J. Law (Eds.), *Shaping Technology – Building Society: Studies in Sociotechnical Change* (pp. 205–224). Cambridge: MIT Press.
- Balbi, G., Delfanti, A., & Magaouda, P. (2016). Digital Circulation: Media, Materiality, Infrastructures. An Introduction. *Tecnoscienza: Italian Journal of Science & Technology Studies*, 7(1), 7–16.
- Bowker, G.C. (1994). Information Mythology: The World of/as Information. In L. Bud-Frierman (Ed.), *Information Acumen: The Understanding and Use of Knowledge in Modern Business* (pp. 231–247). London: Routledge.
- Bowker, G., & Star, S.L. (1999). *Sorting Things Out. Classification and Its Consequences*. Cambridge: MIT Press.
- Bowker, G.C., Baker, K., Millerand, F., & Ribes, D. (2009). Toward Information Infrastructure Studies: Ways of Knowing in a Networked Environment. In J. Hunsinger, L. Klastrup & M. Allen (Eds.), *International Handbook of Internet Research* (pp. 97–117). Dordrecht: Springer.
- Charmaz, K. (2006). *Constructing Grounded Theory. A Practical Guide through Qualitative Analysis*. London: Sage.

- Couldry, N., & Hepp, A. (2017). *The Mediated Construction of Reality*. Cambridge: Polity Press.
- Dantec, C.A.L., & DiSalvo, C. (2013). Infrastructuring and the Formation of Publics in Participatory Design. *Social Studies of Science*, 43(2), 241–264. <https://doi.org/10.1177/0306312712471581>
- Edwards, P.N. (2003). Infrastructure and Modernity: Force, Time, and Social Organization in the History of Sociotechnical Systems. In T. Misa, J. Brey & P. Feenberg (Eds.), *Modernity and Technology* (pp. 185–226). Cambridge: MIT Press.
- Egyedi, T.M., & Mehos, D.C. (Eds.). (2012). *Inverse Infrastructures: Disrupting Networks from Below*. Cheltenham: Edward Elgar Publishing.
- Gillespie, T. (2018). *Custodians of the Internet. Platforms, Content Moderation, and the Hidden Decisions That Shape Social Media*. Cambridge, MA: Harvard University Press.
- Graham, S., & Marvin, S. (2001). *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. London: Routledge.
- Gram-Hanssen, K. (2010). Standby Consumption in Households Analyzed with a Practice Theory Approach. *Journal of Industrial Ecology*, 14(1), 150–165. <https://doi.org/10.1111/j.1530-9290.2009.00194.x>
- Hartmann, M. (2017). Circuit(s) of Affective Infrastructuring: Smartphones and Electricity. In J. Vincent & L. Haddon (Eds.), *Smartphone Cultures* (pp. 11–24). London: Routledge.
- Helmond, A., Nieborg, D.B., & van der Vlist, F.N. (2019). Facebook’s Evolution: Development of a Platform-as-Infrastructure. *Internet Histories*, 3(2), 123–146. <https://doi.org/10.1080/24701475.2019.1593667>
- Hughes, T.P. (1983). *Networks of Power: Electric Supply Systems in the US, England and Germany, 1880-1930*. Baltimore, MD: Johns Hopkins University.
- IHS Markit (2018). *Broadband Coverage in Europe 2017*. Report, European Commission, DG Connect.
- Kitchin, R. (2014). *The Data Revolution: Big Data, Open Data, Data Infrastructures and Their Consequences*. London: Sage.
- Larkin, B. (2008). *Signal and Noise: Media, Infrastructure, and Urban Culture in Nigeria*. Durham, NC: Duke University Press.
- Magaudda, P. (2011). When Materiality “Bites Back”: Digital Music Consumption Practices in the Age of Dematerialization. *Journal of Consumer Culture*, 11(1), 15–36. <https://doi.org/10.1177/1469540510390499>
- Mongili, A., & Pellegrino, G. (Eds.). (2014). *Information Infrastructure(s): Boundaries, Contexts, Ecologies*. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Morley, J. (2019). Unleashing the Internet: The Normalisation of Wireless Connectivity. In E. Shove & F. Trentman (Eds.), *Infrastructures in Practice: The Evolution of Demand in Networked Societies* (pp. 115–127). London: Routledge.
- Musiani, F., Cogburn, D.L., DeNardis, L., & Levinson, N.S. (Eds.). (2016). *The Turn to Infrastructure in Internet Governance*. Dordrecht: Springer.
- Parks, L. (2015). “Stuff You Can Kick”: Toward a Theory of Media Infrastructures. In P. Svensson & D.T. Goldberg (Eds.), *Humanities and the Digital* (pp. 355–373). Cambridge, MA: MIT Press.
- Parks, L., & Starosielski, N. (Eds.) (2015). *Signal Traffic: Critical Studies of Media Infrastructures*. Champaign, IL: University of Illinois Press.
- Peters, J.D. (2015). *The Marvelous Clouds: Toward a Philosophy of Elemental Media*. Chicago, IL: University of Chicago Press.

- Pipek, V., & Wulf, V. (2009). Infrastructuring: Toward an Integrated Perspective on the Design and Use of Information Technology. *Journal of the Association for Information Systems*, 10(5), 447–473. <https://doi.org/10.17705/ijais.00195>
- Plantin J.-C., Lagoze C., Edwards P.N., & Sandvig, C. (2018). Infrastructure Studies Meet Platform Studies in the Age of Google and Facebook. *New Media & Society*, 20(1), 293–310. <https://doi.org/10.1177/1461444816661553>
- Plantin, J.-C., & Punathambekar, A. (2019). Digital Media Infrastructures: Pipes, Platforms, and Politics. *Media, Culture & Society*, 41(2), 163–174. <https://doi.org/10.1177/0163443718818376>
- Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243–263. <https://doi.org/10.1177/13684310222225432>
- Schatzki, T.R., Knorr Cetina, K., & Von Savigny, E. (Eds.). (2001). *The Practice Turn in Contemporary Theory*. London: Routledge.
- Shove, E. (2016). Infrastructures and Practices: Networks beyond the City. In O. Coutard & J. Rutherford (Eds.), *Beyond the Networked City: Infrastructure Reconfigurations and Urban Change in the North and South London* (pp. 242–258). London: Routledge.
- Shove, E., Hand, M., Ingram, J., & Watson M. (2007). *The Design of Everyday Life*. London: Berg.
- Shove, E., & Trentmann, F. (Eds.). (2019). *Infrastructures in Practice: The Dynamics of Demand in Networked Societies*. London: Routledge.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. London: Sage.
- Shove, E., & Southerton, D. (2000). Defrosting the Freezer: From Novelty to Convenience: A Narrative of Normalization. *Journal of Material Culture*, 5(3), 301–319. <https://doi.org/10.1177/13591835000500303>
- Shove, E., Trentmann, F., & Watson, M. (2019). Introduction. Infrastructures in Practice. In E. Shove & F. Trentmann (Eds.), *Infrastructures in Practice: The Dynamics of Demand in Networked Societies* (pp. 3–9). London: Routledge.
- Shove, E., Watson, M., & Spurling, N. (2015). Conceptualising Connections: Energy Demand, Infrastructures and Social Practices. *European Journal of Social Theory*, 18(3), 274–287. <https://doi.org/10.1177/1368431015579964>
- Srnicek, N. (2017). *Platform Capitalism*. Cambridge: Polity Press.
- Star, S.L., & Ruhleder, K. (1996). Steps Toward an Ecology of Infrastructure: Design and Access for Large Information Spaces. *Information Systems Research*, 7(1), 111–134. <https://doi.org/10.1287/isre.7.1.111>
- van Dijck, J., Poell, T., & de Waal, M. (2018). *The Platform Society*. Cambridge: Oxford University Press.
- Woolgar, S. (1990). Configuring the User: The Case of Usability Trials. *The Sociological Review*, 38(1), 58–99. <https://doi.org/10.1111/j.1467-954x.1990.tb03349.x>

Paolo Magaudda: FISPPA Department, University of Padova (Italy)

📄 <https://orcid.org/0000-0003-0830-8299>

✉ paolo.magaudda@unipd.it; 🌐 <http://www.paomag.net>

Paolo Magaudda is Assistant Professor in Sociology of Culture and Communication at the FISPPA Department, University of Padova (Italy), where he is member of the PaSTIS Research Unit (Padova Science Technology & Innovation Studies). The main focus of his work is on the relationship between culture, technology and society, with a specific attention to digital media, consumer culture and music. His most recent books are *A History of Digital Media. An Intermedia and Global Perspective* (with G. Balbi, Routledge, 2018) and *Vite Interconnesse. Pratiche Digitali attraverso Smartphone, App e Piattaforme* (in Italian, with M. Driusian and M. Scarcelli, Meltemi, 2019). He is co-editor-in-chief of the journals *Tecnoscienza. Italian Journal of Science & Technology Studies* (STS Italia) and *Studi Culturali* (Il Mulino).

Tiziana Piccioni: Free University of Bozen – Bolzano (Italy)

Tiziana Piccioni obtained her PhD in Communication and New Technologies in 2014 at the IULM (International University of Languages and Media) in Milan, after her master's degree in Sociology from the University of Padua. Currently, she is Adjunct lecturer in Theories of Cultural Consumption at the Free University of Bozen. She is mainly interested in sociotechnical innovation processes in the field of media and communications and the use of qualitative analysis tools.

Practice Theories and the “Circuit of Culture”: Integrating Approaches for Studying Material Culture^{*}

Emanuela Mora[†]

Eleonora Noia[‡]

Valentina Turrini[§]

Submitted: June 10, 2019 – Accepted: December 12, 2019 – Published: December 31, 2019

Abstract

The paper compares two heuristic tools to understand how practice theory could be used to study the phenomena of material culture: the one summarized by Shove et Al. (2012) in *The Dynamics of Social Practice: Everyday Life and How It Changes* and the “circuit of culture” proposed by Paul Du Gay et Al. (1997) in *Doing Cultural Studies. The Case of the Sony Walkman* (1997). The aim of the article is to test the possibility to integrate the use of these two tools. In order to fulfil this purpose, the article is comprised of two parts. The first part illustrates how the two heuristic tools are compatible and what advantages each have over the other. In the second part, both heuristic tools will be applied to explore two case studies, one regarding a technological artefact and another one regarding a type of agricultural practice.

Keywords: Material culture; Circuit of culture; Practice theory; Haptic interfaces; Farmer agriculture.

Introduction

The object of this essay is primarily born of serendipity. While thinking of how to contribute to the symposium here presented, we asked ourselves how a particular version of practice theory, the one summarized by Shove, Pantzar and Watson (2012) in *The Dynamics of Social Practice: Everyday Life and*

^{*} This article has been thought up, elaborated, and written together by the three authors. If it were necessary to recognize the specific authorship, it should be attributed as follows: Emanuela Mora wrote the first part. Valentina Turrini wrote section 1 of the second part and Eleonora Noia wrote section 2 of the second part. The introduction and conclusions have been written together.

[†] University Cattolica del Sacro Cuore, Milan (Italy); ✉ emanuela.mora@unicatt.it;  <https://orcid.org/0000-0003-0906-9074>

[‡] University Cattolica del Sacro Cuore, Milan (Italy)

[§] University Cattolica del Sacro Cuore, Milan (Italy)

How It Changes, could be used to study the phenomena of material culture. We realized that the heuristic device adopted by those authors had something in common with another one, the “circuit of culture” proposed by Paul Du Gay et Al. in *Doing Cultural Studies. The Case of the Sony Walkman* (1997). By comparing these two heuristic tools, we sought to understand how they are compatible with each other and what advantages they each have over the other. Many vital questions, due to the different theoretical backgrounds of the two instruments, remain unexplored; however, it seems that the comparison offers some exciting ideas, useful for conducting empirical research in a non-reductionist way and consistent with the growing interest in the sociological analysis of material culture. The aim of this article is to explore if it is possible to integrate the use of these two tools and, if so, how. In order to fulfil this purpose, the article is comprised of two parts. In the first part, we illustrate how the two heuristic tools are compatible and what work each does that the other does not. In the second part, we try to apply both the two heuristic tools to two case studies, one of a technological artefact and another of a type of agricultural cultivation, in order to highlight the respective advantages they can provide.

The first decade of the Twenty-First century can be considered the time during which the growing body of interdisciplinary research on material culture became a recognized field — albeit, one at the crossroads of a manifold and motley bunch of disciplines (Tilley, 2013, p. 1; Woodward, 2007, pp. 3–4).

The disciplines that studied the materiality underlying the inquiries into the social have been touched in some way by the “turns” of the social sciences in the last decades of the Twentieth century, such as the linguistic, the cultural, the literary, or the textual (Hicks & Beaudry, 2010, p. 1). In all these turns, scholars have contended that making sense of the wide variety of social phenomena requires the acknowledgement of their dual nature as both cultural and material.

Studying material culture, therefore, involves studying objects and devices, as well as the technologies that give rise to ways of living and doing. Moreover, it means studying the knowledge and the relationships through which these ways of doing are realized, and the objects that are incorporated in them.

Methods and analytical tools to study material culture are part of historical, anthropological, and archaeological traditions. In these disciplines, however, objects are studied as bearers of values, meanings, and/or traditions; they are often the only resources available to reconstruct ways of life and practices that have disappeared. Therefore these material objects are treated as texts, messages that attest to a world that no longer exists. Anthropologists of the contemporary and sociologists of culture and consumption have learned from those disciplines that the study of material resources provides a great wealth of information to develop an understanding of everyday practices. These fields have studied, for example, the social life of objects (Appadurai, 1986) and how objects are used by people to classify the world and to inform behaviour within it (De Certeau & Rendall, 1984; Douglas & Isherwood, 1996; Miller, 2010). In doing this, however, anthropologists and sociologists have exposed themselves to the criticism of those who refuse to place emphasis on semiotic production activities and deplore overlooking the active role that objects play in the production of daily life and social order (Ingram, Shove, & Watson, 2007; Matthew Watson, 2008, p. 5). This criticism matured in the context of the practice approach, the subject of this symposium.

In the present article, we decided to refer mainly to a vein within the family of practice theories (Schatzki, 1996, p. 12), the one that, relying in particular on the contributions of Theodor Schatzki and Andreas Reckwitz, was developed around the University of Lancaster and the research group of Elizabeth Shove.

We believe that those scholars have developed important definitions of practice and a simple heuristic tool useful for studying material culture. The tool is not intended to be a method or a specific set of techniques, as supported by Shove in the blog *Practice Theory Methodologies*. It instead offers a lens through which to study practices and identify their core elements and the connections among them. Even if these authors do not consider themselves scholars of material studies, they contribute to the inquiry of material elements of the social and their capacity for both self-reproduction and change.

There is, however, another tradition that has provided scholars with an equally useful heuristic tool for studying the role of artefacts in social practices, the so-called “circuit of culture.” It is the tradition of British cultural studies, born during the 1960s around the Centre for Contemporary Cultural Studies in Birmingham, UK. This circuit is a simplifying scheme to identify the fundamental social processes that

constitute the different cultural dimensions of a practice. It shows how the order in which the practices take place are the products of actions, events, resistances, and inertias occurring in such processes (Du Gay et Al., 1997).

In our opinion, the cultural circuit and the heuristic model developed by Shove et Al., although different, have much in common; they mainly carry out the same work, even if each one does something that the other one does not or does not do equally well.

First Part

In the following, we briefly present the characteristics of the two heuristic tools, focusing in particular on the elements that, in our opinion, make them compatible and complementary.

1. Social Practices and Their Dynamics

In a book of 1996, Theodor Schatzki provides a synopsis of the contribution of numerous scholars who consider practice as the fundamental social phenomenon (Schatzki, 1996, p. 11).

Taking practice as “the primary generic social thing” means dealing in a non-reductionist way with numerous questions concerning human activity:

The nature of subjectivity, embodiment, rationality, meaning and normativity; the character of language, science and power; and the organization, reproduction, and transformation of social life (Schatzki, Knorr-Cetina, & von Savigny, 2001, p. 10).

This is likely why Schatzki does not provide a univocal definition of practice: the many theorists of practice would provide different definitions. In *The Site of the Social* (2002), he nevertheless offers a definition, albeit minimal:

Practice is a “bundle” of activities, that is to say, an organized nexus of actions (Schatzki, 2002, p. 71).

According to him, any material arrangement is part of a practice, as it was stated by authors like Bourdieu and Giddens in the 1970s and 1980s. At that time, the priority was to make explicit the need to look at “the social,” as comprised of interconnected human bodies, organisms, artefacts, and things:

A practice is an open spatially-temporally dispersed sets of doings and sayings organized by common understandings, teleo-affectivities and rules (Schatzki, 2017, p. 32).

Andreas Reckwitz, going further, defines practice as

A routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, “things” and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge (Reckwitz, 2002, p. 249).

His version distinguishes between simple arrangements, which dissolve in the flow of events, and arrangements characterized by rules, knowledge, and skills that make them recognizable and reproducible as parts of specific practices. Even though any action is comprised of material arrangements and mental activities, a practice has to be acknowledged according to identifiable features that persist beyond single enactments.

Elizabeth Shove, Mika Pantzar, and Matt Watson see the heuristic potential of a practice approach for understanding the dynamic structure of the social, namely the “coexistence of novelty and persistence” — in a phrase, the change, which is the interest of sociology at large (Shove et Al., 2012, p. 1).

They distinguish between practice as an entity — as in the practice of cooking or skateboarding — and practice as performance, that is the single enactment — as in Emanuela’s cooking “ossobuco con

risotto” tonight or Eleonora’s skateboarding in the afternoon to reach Valentina’s place (Shove et Al., 2012, p. 7).

How is this version of practice theory a useful contribution to the study of material culture? Its primary contribution comes from its explicit attention to things and materials as embedded in the activities of everyday life and to their connections with other social dimensions, such as institutions or rules. Shove and her colleagues are interested in understanding how ways of doing in people’s daily lives — for example, playing sports, cooking, maintaining personal hygiene, storing food, etc. — become stable, and how they change over time. To do this, they simplify the catalogue provided by Reckwitz and propose a scheme based on three elements allowing researchers to identify a practice as an entity. The scheme includes the elements of meaning (what Reckwitz calls mental activities, emotion, and motivational knowledge), materials (which include objects, infrastructures, tools, hardware, and the body), competence (multiple forms of understanding and practical knowledge, as well as rules and norms) (Shove et Al., 2012, p. 23). The aim of this scheme is to focus attention on the links and connections among the elements. These key features allow researchers to identify the existence of practices and evaluate which ones are changing over time.

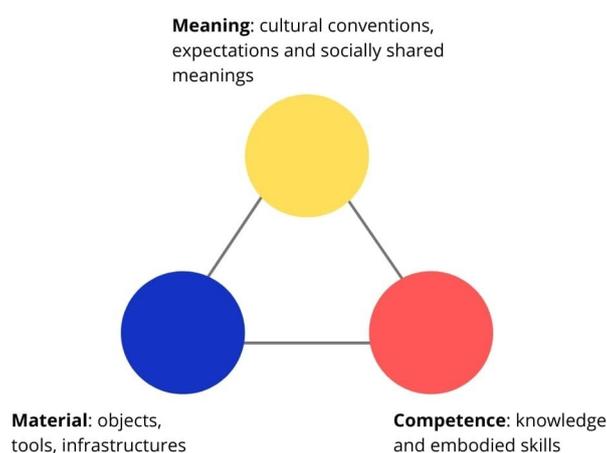


Fig. 1. Element of Practice (Shove *et al.*, 2012).

One of the more pervasive criticisms of this family of theories is that it neglects the actions of practitioners in specific enactments. Recently, a few scholars within the Lancaster group of practice theorists have addressed this issue and some other widely diffused criticisms in an edited collection of essays, *The Nexus of Practices* (Hui, Schatzki & Shove, 2017). In it they offer insight into the role that the practitioners’ production of meanings plays as a core element of practice. Scholars are increasingly aware that the orders according to which practices take place are based on different types of knowledge:

Know-how, interpretive knowledge of routinized attributions of sense, and complexes of culturally modeled affects and motivations (Reckwitz, 2017).

After the theoretical work made in previous publications, the authors feel time is now to explicate that cultural activities are an essential component of practice in order to legitimate the focus on the whole practice as the primary research unit.

The topics addressed in the 2017 volume also attest to the interest of these practice scholars in confirming that their contribution can be useful to elucidate not only small and local phenomena but also larger and more expansive ones. In our opinion, this collection offers space to assess the mutual compatibility of both the heuristic schemes we are comparing in this article. Four topics, in particular, are worthy of consideration: acknowledging the importance of the learning processes in which practitioners are always involved (Alkemeyer & Buschmann, 2017); clarifying the role played by sayings, texts, and discursive formations as offered by Schatzki (2017); considering the emotions as diffused qualities of practices instead of individual qualities, as Reckwitz proposes (2017); suggesting that practice theory should devote more attention to addressing the issue of power, both on the level of organizations and institutions and on that of individuals — an issue that has been often overlooked by practice researchers, more focused on pragmatic solutions of social empirical emergencies (Watson, 2017).

The first topic is addressed in the contribution of Thomas Alkemeyer and Nikolaus Buschmann. They describe the subjectivity of practitioners as the result of a process in which they learn to act competently and accurately according to the practice's requirements. In turn, this practice is progressively structured through the interplay of its components, such as things, bodies, and artefacts (Alkemeyer & Buschmann, 2017, p. 8).

The authors start from the notion of "distributed agency." According to them, looking at the distributed agency requires accounting for the evolution of artefacts, as well as for how practices improve through the interplay among artefacts. Often, however, this strategy leads practice scholars to overlook the reflexive learning processes in which practitioners are involved, once they have engaged with a practice.

According to Alkemeyer and Buschmann (2017) practices include the following: unstable structures that evolve along time making sense both of stability and diversity inside themselves; situations where learning continually occurs, being that the practitioners are always confronted with conflicts, ambivalence and uncertainties; the socio-material constellations that provide the conditions for the subjectivity of the practitioners to come into being, thanks to the active learning processes they go through (p. 22).

Alkemeyer and Buschmann focus attention around the central role played by the learning processes in the reciprocal constitution of the practitioners' subjectivity as well as of the very structure the practice assumes. Their effort follows that of Schatzki (2017). He insists on the importance of sayings and doings, as well as of general understandings as integrative resources — the second topic we want to stress. According to Schatzki (and to Warde & Welch, 2017, p. 195), they contribute to creating the order of practice.

As it happens with the learning processes, the whole practices are comprised of both bodily and mental activities. Schatzki thinks of texts and sayings like uttered sentences in a conversation that perish in the event (Schatzki, 2017, p. 132) and like interactions, such as dissemination of knowledge, power and domination, and aesthetical experience — that is, those constant adjustments that actors make to the world, besides the general action of understanding that cannot be performed outside the context of language (Hui et Al., 2017). The scholar, therefore, does not underestimate the importance of subjective and intersubjective productions of meanings and understandings, which allow people to "pursue ends, carrying out tasks... being imbued by particular emotions and general understandings" (Schatzki, 2017, p. 130). The cultural activities in practices contribute to creating the framework of meanings that makes the pre-reflexive affective responses of the practitioners compatible with the discursive frameworks that govern the normative and teleological structure of the practice itself.

Among the cultural formations that allow practices to become ordered and intelligible and, therefore, to recruit practitioners, scholars also count emotions and affects (Reckwitz, 2017, p. 116). This is the third topic we wish to address, and it is of particular interest here, as it is a cultural component of practice that is often not adequately addressed by the scholars who adopt the circuit of culture. Emotions have been included in the definition of the core dimensions of practices since the 2001 volume, edited by Schatzki, Knorr-Cetina and Von Savigny.

Emotions are a component of the social; to understand them, it is necessary to focus attention as much on cultural and symbolic components as on the material ones (Reckwitz, 2017, p. 115). Following this general understanding of what the social is, Reckwitz considers emotions and affects as entities that favour the recruitment process of practitioners by the practices themselves:

Social practice "interpellates" the subject in a certain way. However, how can the subject be interpellated in this way and thus participate in the practice? The answer is that the practice must entail a specific motivation to perform it. From this perspective, it is not the individual who comes to the practice with their own "psychological" motivation, but rather the practice itself of which the motivation is already an integral part. Motivation is where affects come into play; there must be some affective incentive to participate in the practice. The incentive can be a positive desire, a defensive incentive to avoid displeasure or a combination of the two (Reckwitz, 2017, p. 120).

Considering emotions as properties of practices rather than qualities of individuals, Gert Spaargaren himself suggests that practical nature of emotions arises from the interactional energy produced in a gathering of participants to a situation. They jointly focus their attention and develop a shared emotional mood (Spaargaren, Weenink & Lamers, 2016, p. 66 and 73). Affects, as activities rather than properties, would then have three characteristics: they have a social nature and not a subjective one; they are states of physical arousal of pleasure or displeasure; they are directed at specific persons, objects or ideas. Every practice favours and foresees the unfolding of some affects and inhibits others in an unbreakable intertwining of cultural dimensions and material dimensions. Having the senses affected offers emotional material to the subject's mental activities, while they are performing the practice itself (Reckwitz, 2017, p. 123). For example, consider a piece of fashion clothing or the atmosphere that reigns in a museum, as they can produce emotional arousal that influences the individual or collective agency. Practices, therefore, are also organized around an order of affects, as they offer pleasures, displeasures, or pre-interpreted emotions, artefacts that potential practitioners can choose to adhere to and reproduce or transform.

The fourth topic we want to review is that of power and how practice theory can account for it in practices and enactments. As Matt Watson (2017, p. 169) states, practice theory should be able to account for power. Most scholars, however, find it uncomfortable to analytically elaborate a notion of power that is consistent with the commitment of practice theory toward a flat ontology.

A flat ontology assumes that all social phenomena are composed of practices and enactments of practices, laid out on one level, called by Schatzki "the plenum of the social" (Schatzki, 2017, p. 31). According to this assumption, "the basic ingredients of all the social phenomena are of a piece." Therefore, all the relations between the components of practices and arrangements produce events or phenomena that have the same nature as those from which they originate (Schatzki, 2017, pp. 31–32). Such a flat ontology, apparently, does not account for the "reality of enduringly powerful social agents such as corporations or governments" (Watson, 2017, p. 171). These social agents seem to act, rather, as "overarching structures" (Spaargaren et Al., 2016, p. 78), influencing practices and arrangements from another level of reality. One solution, developed according to Foucault, considers power not as the property of some subjects but as an effect of performances or practices. Following the French scholar, power can be analysed only as "power relations." It becomes visible in arrangements where some subjects end up being systematically advantaged by their positions and by the interactions in which they are involved (Watson, 2017, p. 174). Gert Spaargaren, however, following Manuel Castells (2009), contends that the effects of power are produced where human agents are able "to make and break linkages between social practices." As he says, "connectivity is key to power, innovation, and social change" (Spaargaren et Al., 2016, p. 79). Power, therefore, becomes visible and effective in chains or networks of practices that change the scale of the social phenomenon under scrutiny, but not the ingredients of which they are comprised (Watson, 2017, p. 175).

What we have contended in the previous pages is that practice scholars are genuinely interested in cultural activities as diffused in practice and not as a product of individual meaning production. Furthermore, they are consistently aware that practice theory needs to make sense of phenomena apparently out of reach for an approach focused on spatially- and temporally-localized practices. Hui et Al. (2017) and Spaargaren et Al. (2016), in the last years, have explicitly addressed these issues. What we propose in the following is that the "circuit of culture" allows researchers to make visible the relations among practices that are interconnected, shedding light on the people, objects, and technologies that thread through practices. Moreover, we argue that analysing social phenomena with the help of the circuit allows scholars to understand which practices, or arrangements of a practice, have a better capacity to influence other

practices or arrangements. Integrating the two heuristic tools, therefore, fosters the analysis of practices' dimensions that are often overlooked, despite scholars' awareness of their importance.

2. The Circuit of Culture and the Discovery that Matter Matters

The circuit of culture was introduced in 1997 in the book *Doing Cultural Studies. The Story of the Sony Walkman*, edited by sociologist Paul Du Gay and other scholars, working at the Birmingham Centre for Contemporary Cultural Studies. It was the first volume of a series published by Sage for the Open University with the intent of providing students with textbooks for distance-learning courses. The circuit was implicitly based on a previous version, elaborated by R. Johnson in 1986 and on the well-known scheme that Stuart Hall published in 1973 to describe the processes of encoding and decoding meanings both by media professionals and by audiences in the media production system.

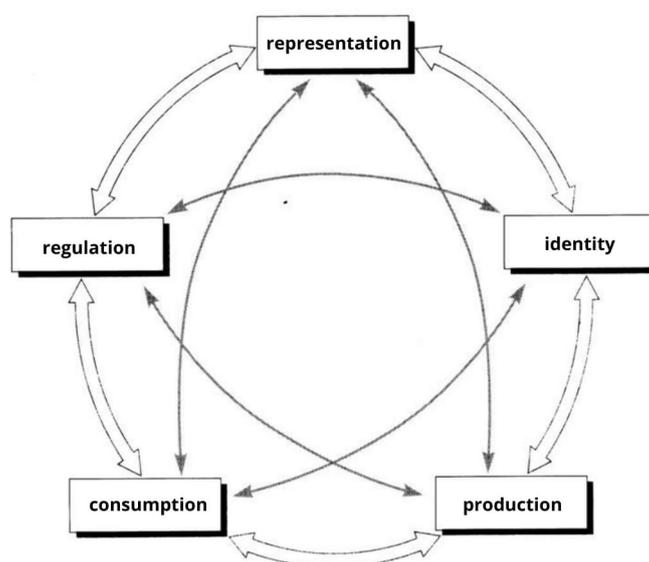


Fig. 2. The circuit of culture (Du Gay *et Al.*, 1997 and 2013).

The case study of the Sony Walkman (Du Gay *et Al.*, 1997) "was designed to offer a sociologically inflected introduction to the interdisciplinary field of cultural studies" (Du Gay *et Al.*, 2013, p. XV). The book's reception went far beyond the expectations of its authors. The book itself went beyond its delineated aims, as did the analytical tool called "the circuit of culture" (Fig. 2), which was originally developed as a pedagogic and heuristic device, useful to organize the massive amount of materials related to the Sony Walkman that the authors gathered during the months they devoted to the collection of data.

As an outcome of its success, the "circuit of culture" ended up to make visible the steps any analysis of a "cultural text or artefact" should pass through. It encompasses five knots, corresponding to five processes (representation, production, consumption, identity, regulation), whose examination enables us to understand the phenomenon in which an artefact or text is embedded.

An updated edition of the book was published in 2013, as the diffusion of web-based mobile devices had drastically changed the practices of playing and listening to music, both in private and in public spaces, since 1997.

Comparing the cultural practices associated with the Walkman with the practices related to modern Web-based mobile devices reveals both continuities and changes in the ways such

technologies have been represented, identified with, produced, consumed and regulated (Du Gay et Al., 2013, p. XII).

The effects of the material turn are woven throughout the second edition of the textbook. The centrality of the relationship between practitioners and artefacts was affirmed already in the 1997 version, but the new edition clearly explains that to understand social practices it is necessary to “think about action as a phenomenon that is distributed between human and non-human actants that are assembled in so-called ‘actor-networks’” (Du Gay et Al., 2013, p. XVIII). In support of the “renewed focus on the role of ‘the material’, ‘matter’, and ‘materiality’ in the constitution of socio-cultural relations” (Du Gay et Al., 2013, p. 7), a reading by Bruno Latour, has been included, namely an excerpt from *Technology is Society Made Durable* (Latour, 1990).

Why did the authors feel the need to explicate an interest in the material components of social practices? During the time between the publications of 1997 and 2013 editions, a journey took place within the cultural studies environment, which corresponds to the more general maturing of the material turn that we mentioned earlier in the article. The original reason to study the Sony Walkman was that such a small device was regarded as “a crucial new development in modern culture. Whether it was a liberating device or the symbol of an antisocial youth-culture, it was, however, a controversial issue” (Du Gay et Al., 2013, p. XI). Scholars, commentators, as well as journalists, users, and non-users — anybody who came in contact with it or with its representations and uses — could not avoid considering it an essential piece of the contemporary popular culture, able to interfere with the more diffused ways of doing things. Cultural studies scholars were interested in all forms of cultural production and “not only in art and learning but in institutions and ordinary behaviours” (Williams, 1973, p. 57). Therefore, the Sony Walkman was an appealing case through which to demonstrate how material objects that enable particular social practices can be at the centre of interaction networks and particularly of complex meanings.

In the 1997 edition, the authors’ primary theoretical and methodological intent was to affirm that cultural processes, on a par with the economic and political ones, were able to “alter material conditions in the ‘real world.’ All the intangible materials of which cultural processes are made permeate social processes, which must therefore be considered cultural as well” (Du Gay et Al., 1997, p. 2). Scholars recognized the importance of the material, and, with the Sony Walkman, they put an artefact at the centre of their cultural analysis. However, what they were mainly interested in was how objects are invested with meanings and how, loaded with new meanings, they offer themselves to new cycles of understanding and agency.

Fifteen years later, it is no longer so relevant to emphasize that “in order to conduct a social practice we need to give it a certain meaning, have a conception of it, be able to think meaningfully about it,” as this has become a taken-for-granted, background understanding. What is explicitly re-affirmed, instead, is the role of the “material.” The changes in technologies and material devices involved in a given practice change profoundly the practice itself.

Since the circuit’s nodes represent all the processes of the phenomenon under study, they make evident some dimensions of practices not explicitly considered in the tripartite instrument elaborated by Shove et Al., even if, as we have seen in the previous section, practice scholars are well-aware of the need to account for them. As we did for the practice approach, we want to underline the relevance of some issues emerging from the 2013 volume about the Sony Walkman and another volume of the same series, dedicated to the node of representation (Hall, Evans & Nixon, 2013). The first issue concerns the process of regulation, the second concerns the process of representation, that Stuart Hall, following Foucault, considers as the product of discursive formations (Hall et Al., 2013), and the third concerns the relations between two processes, namely those of production and consumption, which are considered as inextricably linked (Du Gay et Al., 2013).

The first question is that of regulation. The theme of the rules governing the uses of artefacts — in this case the Sony Walkman — is addressed as closely related to the issue of representation. The rules to which practices are subject are the product of classification systems, and therefore of representation, according to which what is appropriate or inappropriate in a given spatial-temporal context is established. Whenever a new technological artefact is introduced into people’s lives, the accepted classification system is challenged, as it becomes possible to develop new practices or to alter standard ways of doing. The Sony Walkman, for instance, blurs the boundaries between the public sphere and the private sphere (Du

Gay et Al., 2013, pp. 104–107). The technological device allows people to do things in public that were previously considered appropriate to do only in private — namely, listening to music. The consequence is that the practice's reach is modified, and with it also the general understandings that support it (e.g., the fact that the private sphere is the place of intimate and emotionally dense relationships, personal pleasures and particular values, while the public sphere is the place of universality and rationality). In their analysis of the Sony Walkman, the authors explore the effects of altering the rules governing a practice by focusing on public/private classification.

However, analysis of other artefacts or practices can reveal changes in other classifications adopted as regular, for example, in the functioning of genders or of hygiene maintenance or food preparation. In short, the regulation node allows us to highlight something that the scholars of practices know very well: technological devices or any innovation that alters the ordinary organized course of events requires, or derives from, a restructuring of the pole of meanings available in a practice and a restructuring of the pole of competencies of practitioners, to adapt or to consolidate the new emerging order. The analysis through the circuit never loses sight of the interconnections among nodes. Therefore, we hypothesize that it allows researchers to focus on the role and changes of rules in the chain of interconnected practices. Moreover, we contend that it also enables us to understand which practices or arrangements of practices are more able to influence others. In other words, we suggest that, with the circuit, we can gather useful information to understand the effects of power on practice. This is also possible because — and this is the second theme we address — Du Gay, Hall, and their colleagues consider rules as the performative translation of the representations leading social actors to classify the socio-technical systems in which they participate. In Schatzki's language, representations are the general understandings that make practices understandable even to those who are not practitioners and that allow people to understand how different practices, and arrangements of them, are connected to each other.

Stuart Hall takes up the Foucauldian definition of "discursive formation" and describes the process of representation as determining what things are while simultaneously influencing how things must be done. Through this definition of representation, he overcomes the distinction between language and practice but explicitly refuses to reduce reality to mental activity or linguistic structure (Hall et Al., 2013, p. 29). According to this perspective, defining things — using some words rather than others — means constructing the reality itself. Above all, however, it means establishing how things can be done and interpreted. Analysing the cognitive and practical steps through which the processes of representation take place, therefore, makes it possible to reconstruct where social actors are — around which node of the circuit are they mostly active — and who has a significant chance to influence the conduct of others in one or more practices — what they do (Hall et Al., 2013, pp. 29–33). The third theme relevant to testing the compatibility of the two analytical tools concerns the inextricable connection between the pole of production and that of consumption. People, in the practices of their daily life, using the goods they buy, transform them from commodities into objects that occupy a specific place within practices. According to this perspective, therefore, consumption is not merely the passive result of the process of "consumption production" through the planned activities of design, marketing, and advertising conducted by companies. The scholars of the culture's circuit recognize that in the practices of goods' appropriation mechanisms are active for conditioning consumer behaviour through scripts embedded in products. Nevertheless, they consider consumption as a process relatively autonomous from production. As will be clear in the second part of the paper, the blurry borders between consumption and production also affect practices related to processes of identity.

This is consistent with the claims by Warde (2005), who, in a seminal article, discussed the advantages of studying consumption from the perspective of the theory of practices. According to this approach, the concept of "the consumer" ceases to be the unit of analysis. "The key focal points become the organization of the practice and the moments of consumption enjoined" (Warde, 2005). Most importantly, this approach challenges the way in which people have been considered, in a polarized way, either as sovereign choosers or as dupes.

In conclusion, it seems possible to argue that the two heuristic instruments serve to analyse the same type of phenomena and do much of the same work, as they help us to focus on the interweaving of human and non-human agents, the symbolic processes in which they are involved, and the way the "social" takes shape. If this is true, then one may wonder whether these two instruments can somehow

be combined — that is, whether they can be integrated such that one allows researchers to see something that the other deemphasizes. We believe that this is the case. The merit of the culture's circuit is providing an articulated analytic scheme of the processes through which practices are connected. These processes are comprised of an articulation of practices. They go far beyond any specific practice. They indeed involve also social components that do not exhaust their activities within a single practice: for instance, the market and elaborate production systems; the regulatory systems that rule its operations but also apply in other fields; and the broader social identities to which the practitioners belong and that are relevant for the practitioner's conduct in the performances. Understanding this complexity enables us to study how a practice is placed on a broader social background. In it, many forms of agency are at work, such as the agency of individuals, organizations, and institutions, each the consequence of powerful socio-technical systems. They are not neutral: even if they are not directly connected to the practice in question, they are affected by it and can influence it. It seems to us that the circuit of culture illustrates the suggestion made by Davide Nicolini (2013, p. 181) and taken up by Spaargaren (2016, p. 74) not to reify practices, insisting in categorizing them as neatly defined sets of components. Those scholars suggest to "start with processes and to take the emergence and creation of provisionally identifiable units as the thing to be explained" (Nicolini, 2013, p. 180; Spaargaren et Al., 2016, p. 74).

An ontological issue arises, however, from the comparison of the two heuristic tools: while the practice theory applies expressly to a flat ontology through its assumption that the social is comprised only by practices, the circuit of culture relies on no such assumption. Moreover, the articulation among processes and practices, as it applies to the circuit, seems to suggest a predilection for an epistemological foundation rather than an ontological one. Such an issue falls beyond the scope of this article since we believe that, regardless of their underlying ontologies, these two heuristic tools, if integrated, can lead to better cultural analysis of practices and material culture.

The practice approach proves to be invaluable in demonstrating how knowledge, agency, affections, and emotions are distributed in practices rather than existing as the property of individuals. Moreover, practice scholars emphasize the emotional and affective components of a practice that are overlooked in analyses through the circuit of culture. The chief merit of practice theory, finally, is to highlight how practices are reproduced beyond the contribution of individual practitioners. The cultural and material components taken on by practitioners become elements of the practice itself: patterns and configurations, ways of thinking and of doing that retain value beyond any single performance of practitioners. The need to distinguish between practices and those social arrangements that do not crystallize in any recognizable practice is something that is not adequately addressed by the mere application of the circuit tool.

In the following part, we will present some results from two case studies in order to test the two heuristic tools and the respective analytical advantages. The case studies have been realized as part of two PhD dissertations. The first case concerns the introduction of a digital tool in the highly skilled craft of watchmaking. The combination of the two approaches sheds light on the relational and performative nature of a robotic artefact. More precisely, this combination enables us to analyse the relationship between the introduction of the technological object into a specific artisanal practice and the apparently disparate elements of that practice, such as affective dispositions, used tools (traditional and innovative), material setups, and broad discourses about automation. The second case pertains to self-production practices in the Italian agricultural system. By applying both heuristic tools to specific and localized practices related to different nodes of the circuit, the researchers were able to observe how the mutual influence between practices related to self-production can generate common identities and representations of being a farmer. This mutual influence between production and consumption practices, identity, and representations also contributes to the emergence of new practices capable of protecting and favouring small-scale farming.

Second Part

1. Prototyping an “Augmented” Tool for the Practice of Watchmaking: The TéléTweez

In this section, we will advance considerations addressing the prototyping of technological tools and their implementation in traditional working practices. The preliminary findings for this ongoing research project come from the ethnographic observation of researchers’ activities at *Institut des Systèmes Intelligents et de Robotique* (ISIR) in September 2018. These researchers also worked with informants for qualitative interviews.¹ The interviews were conducted with traditional watchmakers, namely the practitioners using the studied artefact.

The innovative tool we want to present and deconstruct, called TéléTweez, was developed at ISIR labs on commission by Percipio Robotics. It is a novel haptic interface resembling the conventional tweezers used in watchmaking. It allows a watchmaker to remotely control a robotic arm that assembles watches more accurately than is humanly possible. This artefact aims to fit into a proud traditionalist craftsmanship practice, with the intent of augmenting the competencies involved in it by introducing not only new materials but also new meanings. At the same time, it is connected with other artefacts and other practices, which together create a broad socio-technical system permeated by discourses and representations linked to the automation of working practices. To study this artefact, we turned our attention mainly to two fundamental issues. First, we focused on the social construction processes that characterized the prototyping phases through studying the relationship that exists between production and consumption and which entangles the two. Second, we studied the relationship among the artefact, the practice in which it is inserted, and the broader socio-technical system and cultural context to which it belongs. In our view, such cases require us to adopt a flexible analytical gaze without precluding the possibility of merging different heuristic tools. We saw in the opening of this paper how the nature and meaning of an artefact can be understood only if analysed within the practice in which it is inserted. A practice-based approach may help us to impose analytical order on the complex relationship among the materiality of the artefact, the competencies, and the meanings of the practice to which it belongs. In fact, we will see how its technical and physical properties are shaped by, and at the same time shape, the “human” and cultural properties of the practice in which it is used. It will be illustrated how the technological device is able to modify the elements that characterize the practice of watchmaking. By widening the gaze, this approach can also point out that an artefact always takes shape in relation not only to one, but to many other practices, situating itself in a broad nexus of practices, which constitutes the fabric of social reality. By attributing importance to dimensions such as identity and representation, the circuit of culture can help us to understand what role a working practice, along with its constituting materials, takes inside a broad social context, composed of many different practices. In short, the circuit of culture places the artefacts, and the overall practices in which they are involved, in a rhizomatic system of potentially infinite artefacts and practices. By culture, we also mean the set of legitimizing discourses that emerge from representations and are connected to the dimension of identity, orienting production, consumption, and regulation. Combining these two approaches can therefore help us analyze and locate a technological artefact within an entire socio-technical system, made up of discourses, regulations, and constellations of institutionalized practices.

1.1. The Practice: Traditional and “Augmented” Watchmaking

Watchmaking is the art of making and repairing watches. Following the guidelines drawn by Shove and colleagues, we can see the elements that define this practice. This activity is traditionally carried out by artisans with specific skills, such as a remarkable ability to operate on tiny mechanical systems, and endowed with the artistic taste necessary to create objects in which beauty is usually more important than practical function. We know that knowledge is not the property of individuals, but a feature of groups with their material setups (Schatzki, Knorr-Cetina, & Savigny, 2001): skills are thus shared and

1. The data obtained through ethnography and interviews were collected during a study concerning the social construction processes of haptic interfaces, or devices which deliver artificial tactile sensations to the skin. These technologies can help users complete a task, augment or replace other senses, and add immersivity to virtual interactions (Culbertson, Schorr, & Okamura, 2018).

institutionalized through formal degrees at watchmaking schools; later, practitioners usually receive in-house training at the factory or service centre where they are employed. Despite the institutionalization of skills through training, a lot of the knowledge involved in the performance of this practice is corporeal and “tacit” (Polanyi, 1966), learned and situated in autonomous daily work (Viteritti, 2012).

There are some movements that can’t be standardized, because they’re not the same for everyone. I can tell you which points to touch, but I can’t define how you have to hold the tweezers. There are no correct movements, every watchmaker masters his own technique (Leonardo, watchmaker).

A fundamental aspect of this practice is the set of meanings attributed to the tools which are often customized according to the personal preferences of the practitioners themselves. Words like *craftsmanship* and *customization* are very common in the world of watchmaking, and they are directly related to the final product created in this practice: the luxury watch.

People are willing to spend so much money to buy mechanical watches, although they are much less precise than the cheaper quartz ones. Because craftsmanship binds the clock to the idea of human genius, and gives it a sense of uniqueness, even by virtue of those inaccuracies. So, I think automation won’t have an easy road in the watchmaking industry, or at least not in luxury companies (Leonardo, watchmaker).

Following industrial revolutions, automation has changed the way in which technology production is conceived; however, high-end watchmaking can hardly be realized by automation, because small batch production requires a flexibility that automation cannot achieve at a reasonable cost. Moreover, the ability to manipulate objects of small dimensions is extremely difficult to automate. The micro-world, however, is far beyond human perceptive capabilities due to the limitations of the human eye (Lu, 2016). But with innovative prototypes of *cobotic* systems — a neologism referring to the cooperation between humans and robots — we are gaining access to micro scales to handle tiny gears and springs.

1.2. The Prototype

Applying this technology directly to watchmaking, French micro robotic company, Percipio Robotics, in collaboration with ISIR, proposed a tool to teleoperate micro-assembly tasks. In the first phase of development, the semi-automatic system was composed of a joystick, a user interface that conveyed motion commands to a robot assembling micro-components of the watch on a platform. As operators are trained for years with conventional tweezers, the use of the joystick was not intuitive. This, among other problems, highlighted the presence of discrepancies between the rhetoric of enrolment to the use of this technology and the experience of actual usage (Wilson, 2003). The artefact was intended to change the practice of watchmaking without really understanding the practice itself, privileging management-held priorities such as seeking efficiency and reducing margin of error. Engineers considered the possibility that conflicts of scripts could emerge between the culture of traditional watchmaking and the prescriptions of the ideal practice of “augmented” watchmaking. To overcome these problems and to properly identify user needs, Percipio involved professionals in the field of watchmaking. In this second phase of development, the objective was to recreate a working interface that was as similar as possible to the traditional one. Engineers chose to design a novel haptic interface that resembles conventional tweezers in order to provide intuitiveness. They called it TéléTweez.

The electronic tweezer, like the previous joystick, allows remote control of a robotic arm that reproduces the pinching movement of the tweezer and assembles watches more accurately. The underlying idea behind the creation of these *cobotic* systems was to “transcribe the user’s expertise into the robotic control loop” (Sakr, Daunizeau, Reversat, Regnier, & Haliyo, 2018). In some sense, we can say that these new artefacts aim to make tacit knowledge explicit through digitally defining gestures and embodied skills.

The big picture was to make watchmakers try this device, and let them do the typical movements they usually do with the tweezers. The idea was to record the movements, and also to record the force they applied, et cetera (Thomas, ISIR engineer).



Fig. 3. The haptic tweezers. Picture was taken by the author at ISIR labs.



4. Overview of the teleoperation setup. (a) The slave device consists of a piezoelectric microripper equipped with high precision silicon tips

Fig. 4. The TéléTweez cobotic system

The focus on this second prototyping phase was on improving the performance and productivity of practitioners, promising to “augment” ill-suited human natural abilities² — that is, touch and sight that can scarcely handle small dimensions and long hours of work.

We increase their capabilities on their work. We can allow them to decrease the size of the objects and make things tiniest, or the contrary... They can also block the pieces without applying any muscular force: this prevents excessive fatigue during a long time, and maybe we can decrease the musculoskeletal problems (Sophia, ISIR engineer).

Another aspect to which they have decided to pay attention is versatility. First, the producers highlighted that TéléTweez can also be used as conventional tweezers. Second, “since it is tweezers-based design and is compatible with conventional usage, the interface is not limited to watchmaking but can be used in a wide range of micro-manipulations” (Sakr, Daunizeau, Reversat, Regnier & Haliyoet, 2018). “The prototype does not work on its own, but as part of a dynamic assemblage of interests, fantasies and practical actions, out of which new socio-material arrangements arise” (Suchman, Trigg, & Blomberg, 2002).

Although user tests in controlled settings have not yet been performed, the prototype has been tested by potential users during several demonstrations at trade shows, where practitioners from the watchmaking industry and other micromanipulation-related fields were asked to try out the prototype and give feedback. From these demonstrations, engineers noticed that the table on which the prototype was tested created frustration for testers since it differed too much from what is used by watchmakers in their daily working routine. An arm positioning deck similar to those traditionally used has thus been integrated with the purpose of facilitating the posture that practitioners are accustomed to and of recreating a familiar material setup. This way of involving potential users comes close to what Lucy Suchman calls “co-operative prototyping” (Suchman et Al., 2002).

1.3. Widening the View

Following this last consideration, we can say that the representation that has been made of this project, although limited to a specialized field, explains how the identity of the *cobotic* device aligns with a wide system of discourses related to emerging technologies common to other “augmented” practices and other research communities. This aspect is not casual, given that, as Latour said, the inscriptions become stronger as they are inscribed into a larger heterogeneous actor-network (Monteiro & Hanseth, 1996). This crystallization of inscriptions is thus achieved through orders of signifying practices that let representations relating to this field seem as if they are “regular” or “natural.” We could say that it is a form of regulation, which can be disputed at any time (Thompson, 1997).

This reflection on representation leads us to think about another aspect that is properly highlighted in the circuit of culture. According to Stuart Hall, identity can be described as “the way in which different groups and types of people (from producers to consumers) associate and are associated with discourses made around the artefact” (Hall & Du Gay, 1996). Identity and representations are closely related as, for example, when the latter are linked to ideologies carried out by social groups. In this case, we talked about the goal of partially automating an ancient professional practice. In the case of TéléTweez, full automation was not the main target. The semi-automation guaranteed by *cobotics* was the preferred route for two reasons. From a purely practical point of view, human cognitive flexibility makes it possible to manage any unforeseen event that current autonomous systems would not identify, such as the presence of dust in the gears. Additionally, in a fully automated system, there would be no craftsmanship to give “luxury” status to the final product: the watch.

From a pure marketing view, companies build watches not to give you the hour, but because they’re mechanical jewels. If they’re done by robots, there is no value added by the human, and they won’t be able to sell anything. Maybe Swatch can do it, which is a mass consumption and not a luxury company. But you can’t have luxury brands doing fully automating

2. The goal to “augment” competences, perceptions and, ultimately, the boundaries of human condition up to equate the latter — in the most extreme visions — to technology, is usually attributed to post-humanist ideologies (Bostrom, 2014).



Fig. 5. The workbench designed by ISIR engineers

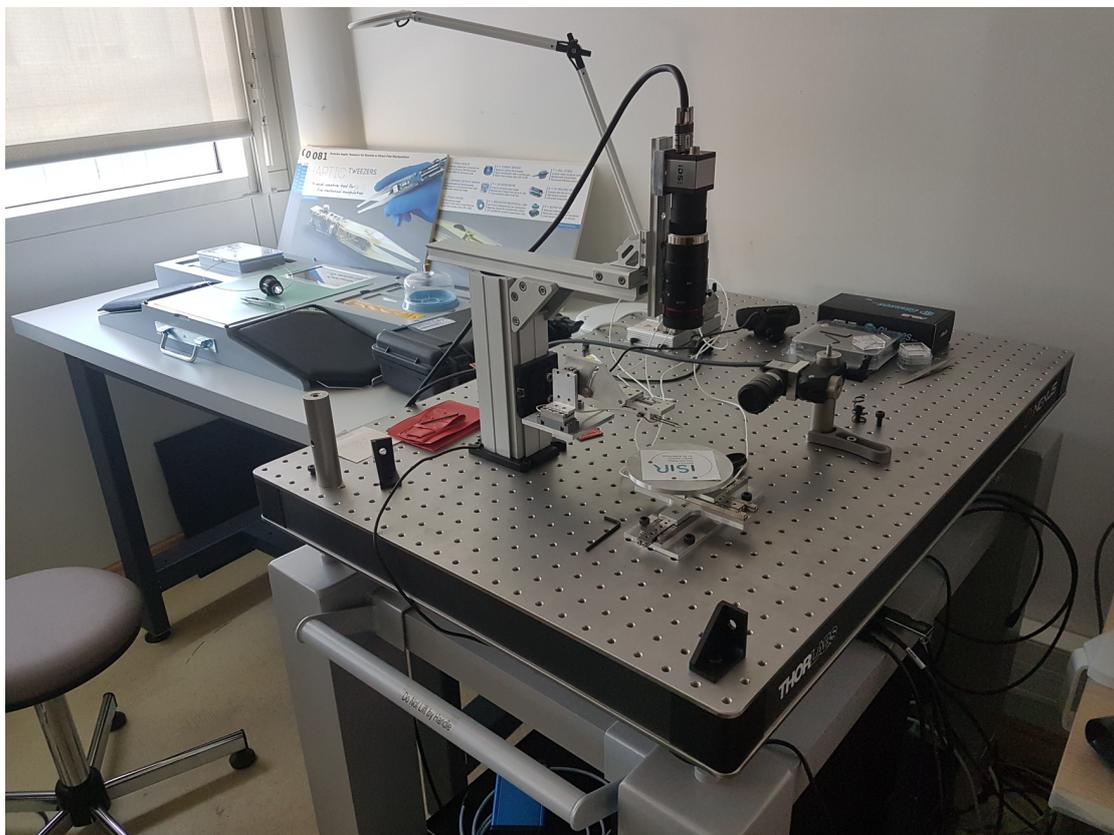


Fig. 6. The assembling robotic platform

watchmaking. Because at the end of the day you pay for the craftsmanship (Thomas, ISIR engineer).

However, among practitioners, there is the awareness that in the future, with more advanced systems as in other non-craftsmanship-related sectors, full automation is a plausible outcome.

We are as most traditionalists, reluctant to innovate. And then the idea of being replaced by a machine, or that a machine can have similar skills to mine is... annoying. And I tell you this from a young person who has a whole working life ahead, and who sees these risks as possible (Leonardo, watchmaker).

The sense of annoyance experienced by the interviewee with the idea of being compared to a robot opens a window on the affective dimension of the practice of watchmaking. As we saw in the opening of this paper, the cognitive and affective dispositions through which individuals respond to their environment are informed by some pre-reflexive moral intuitions, called general understandings, which are of a social nature and are embedded in practice. These general understandings serve as incentives to participate in the practice and constitute what is commonly called "motivation" (Reckwitz, 2017, p. 120). What drives the watchmakers to be enrolled in the practice is, first of all, the pleasure they feel in the handicraft typical of artisanal jobs, or the almost intimate relationship with the materiality of the tools and of the product of their own work. Furthermore, they are motivated by the satisfaction of improving their bodily and intellectual abilities, aiming at mastery through the creation, with their own hands, of objects that are a concretization of aesthetic human genius. Finally, they feel a strong sense of exclusivity by being part of a niche that keeps its traditions intact for centuries. However, this sense of belonging coexists with an idea of the uniqueness of one's work, which is reflected in the self-customized tools and in the irreproducibility of mechanical watches.

Given that practice is organized around this order of affects, a question arises: What remains of the practice when the motivations that characterize it are affected? Can an "augmented" version of watchmaking continue to recruit practitioners if a technological artefact, which is somehow not compatible with the general understandings that have always provided the teleological structure of the practice itself, is introduced? Perhaps this new version of the practice will recruit new types of practitioners, who feel more inclined to align themselves with different discursive frameworks. Although the engineers have not elaborated in-depth reflections on this topic, they seem to be aware of the fact that becoming promoters of total automation could be risky.

The risk with automation is to remove from workers the only thing that makes them valuable. Because, theoretically, with a robot, any clumsy watchmaker can become as good as a talented master. So, is there any value in human work, at the end of the day, if you don't acknowledge the very intense training they need to master their practice? In my opinion, it's still interesting to have a human-centric process, because you rely on brain flexibility. Well, we'll see until neural networks and deep learning will really start to catch on (Thomas, ISIR engineer).

The union of the two approaches has allowed us to shed light on the relational and performative nature of technological objects. We have seen how one artefact, the *TéléTweez*, can connect different practices and, at the same time, demonstrate how the practice can relate different artefacts. Finally, we have illustrated how the introduction of a new artefact in the practice of watchmaking has allowed us to analyse the relationship between the overall configuration of the practice and its general understandings, relating the apparently disparate elements of practice, such as affective dispositions, used tools, material setup, and broad discourses about automation. The observation of these links has allowed us to problematize through a new perspective the nodes of the circuit of culture, considering them as elements in continuous transformation.

2. Self-Production Practice in Italian Farmer Agriculture

In this section, we will investigate self-production practices in the context of Italian small-farmer agriculture. Self-production is one of the bundles of practice that composes the Alternative Food Networks

(AFNs) in which small farmers participate. AFNs are based on local action and proximity, both at socio-economical and spatial levels between consumers and producers. Their purpose is to build new economic and productive strategies encouraging alternative and sustainable ways to live and produce local, self-made food (Barbera, Dagnes, Salento & Spina, 2016; Corrado, 2010; Nigh & González Cabañas, 2015). In this field, we can observe production practices adopted by small farmers linking private life to work and economic processes. Studies on alternative and circular economies have shown that changing consumption practices influences lifestyles. Networks, in this sense, are set in motion by individuals to support the activation of new consumption and production practices, that foster awareness, critical thought, and responsibility toward “the social” (Bertell & Aime, 2013).

We analysed 17 interviews of farmers involved in the Italian association of World Wide Opportunities on Organic Farms (WWOOF), a network that promotes organic agriculture and a sustainable way of life through work-hospitality exchange. Farmers who are part of the WWOOF Italia are often involved in other AFNs and participate in local activities. The assumption behind this research is that farmers’ participation is practice-based more than value-oriented. Through the combined-approach proposed in this paper, we overcome the emphasis on values shared by individuals, examining how the self-production practice recruits farmers and involves them in AFNs. Combining practice theory and the circuit of culture, it is possible to observe the cultural turn which has affected self-made food production practice over time. We consider the role of self-made food production practice as part of the small farmers’ lifestyle choices, affecting not only private lives but the economy as a whole. Literature defines “self-sufficient agriculture” as small-scale agriculture with a primary aim of self-sufficiency through self-production; it is conceived of as a way to realize freedom and autonomy (Bertell, 2016) in subscribing to philosophies such as the “back-to-the-land” philosophy (Wilbur, 2013). Indeed, self-production in food affects not only the individual life and the environment, but also consumption and representation. Self-produced food is

seasonal, always fresh, organic, local both in terms of production and exchange, and promotes the predilection of native species and restoration of ancient seeds. “Good Food” is also synonymous with an idea of agricultural labour as a tool for personal growth, a creative activity that allows you to develop individual aptitudes and inclinations” (Brombin, 2015, p. 472).

Self-production, for this reason, also influences identity through the creation of new ways to forge links with consumers and other producers.

In the first sub-section, we use practice theory from a historical perspective with the aim of understanding self-production practice. The second sub-section describes how practice theory and the circuit of culture can be combined to understand how farmers promote a sustainability turn founded in production practices.

2.1. Searching for the Specific Features of the Self-production Practice Nowadays: A Diachronic Approach

The analytical tool elaborated by Shove et Al. (2012) is useful to understand meanings associated with self-production practice. Moreover, it helps us to observe how historical context informs practice. As pointed out by Schäfer et Al. (2018), “the regular performance of practices keeps them alive, but is also responsible for their transformation. Transformations can come about through changes in the arrangement of elements — how they fit together.” Since self-production practices are well-studied in literature, we can reconstruct transformations involving farmers’ methods and purposes over time. This section demonstrates how self-production practice evolved from the traditional farmer agriculture model to contemporary self-sufficient agriculture. For this purpose, we consider the role of the technological progress involving food production from the middle of the last century, which results in so-called conventional and intensive agricultures, as shown in Figure 7.

In traditional farm-hold management the link between production and consumption is instrumental, using all the resources in a “closed-cycle” system (Caillavet, Guyomard & Lifran, 1994).

Nonetheless, both technological transformations mark the starting point of a new food production model able to satisfy emerging needs related to the improvement of living conditions in developed countries after World War II. The intensive production model replaces the internal resources, thus improving

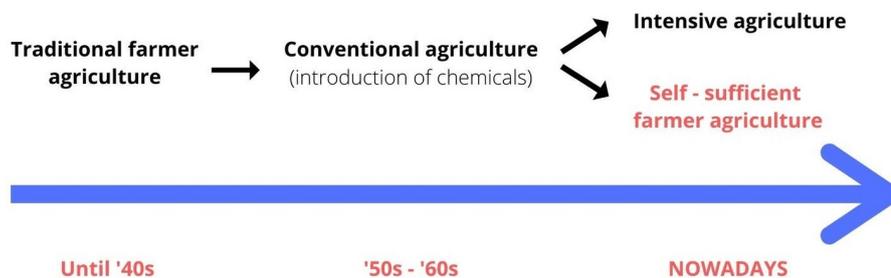


Fig. 7. Farmer agriculture evolution in the last Century

performances and benefits. Although, the small farmer agriculture model still holds, new strategies must be developed to safeguard the environment and the role of small production in the extant capitalistic and globalized society.

Compared to traditional farmer agriculture, self-production practice is still fundamental in the small farmer agriculture and seems stable over time, attesting to the resilience of the farmer agriculture model (Van der Ploeg, 2018). Nonetheless, even if the three spheres are connected to each other, there have been transformations involving meanings, competencies, and materials. We can observe the influences among them by elaborating a dynamic tool, as shown in Figure 8, according to the theory of practices elaborated by Shove et Al. (2012). We have assigned to the self-production practice three different moments that characterized the history of farmer agriculture in the last century, considering that “transformations of daily practices are a result of a co-evolution and/or re-configuring of several interdependent elements within complex socio-technical systems” (Schäfer et Al., 2018, p. 5).

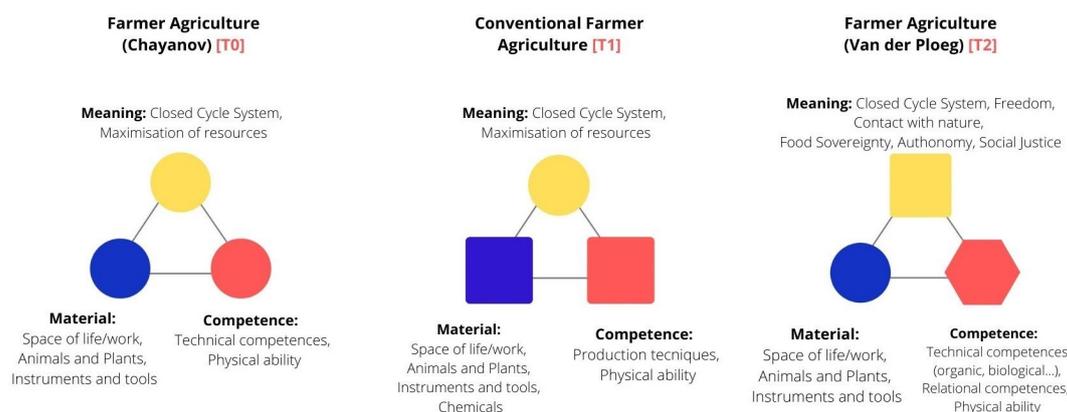


Fig. 8. The dynamic analysis of self-food production practice using the *Theory of Practices* by E. Shove

The first moment [T0] is referred to as farmer agriculture in early Nineteenth century. Chayanov

elaborated in the 1920s a model in which farmer agriculture is seen as a bearer of modernity and marked by a specific ratio that goes beyond the pursuit of profit (Van der Ploeg, 2018). Reading the Chayanovian model through the practice approach, self-production appears to be a practice whose meanings are related to the survival of farm and family. The balance between family consumption and family work depends on individual actions and affects the size of the farm: the need of land grows with the increasing number of individuals within the household.

Thus, the dynamic analysis of self-production practice in the farmer agriculture field illustrates that "recrafting practices... aims to reduce its negative effects" (Schäfer et Al., 2018, p. 6). In fact, practice co-evolves with the experience of practitioners and technological progress. After World War II, the switchover from arms to chemical industry encouraged the spread of chemical fertilisers and pesticides. During the 1950s [T₁] individual farmers balanced the use of chemical and organic fertilisers with the use of internal resources from the farm (Van der Ploeg, 2018). Unlike in the first scheme, self-production practice in conventional agriculture is influenced by a technical improvement, which affects the material (and consequently the competence) sphere and effects a re-assessment of the balance among meanings, materials, and competencies. This transformation leads to a consideration of further developments which resulted from the efforts of contemporary farmers' networks in attempting to reclaim the role of farmer agriculture and to build more sustainable economies as a response to climate change.

The intensive production methods have created emerging unsustainability and new risks, but, these risks have been counterbalanced by new demands for food sovereignty, quality, food safety, environmental protection, both from consumers and producers. Exemplifying responses to these risks and demands, the third moment [T₂] represents the contemporary small farmer agriculture, affected by a cultural turn that involves food and its production.

In my opinion [self-production] is a fundamental step to go out of all the logics of industrial job, because you need people, and talents... and therefore yes, self-production is fundamental to me (Alberto, farmer).

As previously seen, the farmer's job is associated with the aim of self-sufficiency and freedom, but it is also inspired by environmental principles and ethical consideration.

When you make a choice like this, the job becomes your life, it becomes part of your life. I mean, the work completes your life, and there is no more difference between your work and your life... Thanks to this, you create a different relationship between yourself and the whole being (Marcello, farmer).

As noted by Brombin, "ethics and aesthetics are set around the concept of self-production and self-sufficiency. This serves to distinguish good food from bad food, and becomes a true marker of a green identity" (Brombin, 2015, p. 474).

We produce about 60-70% of what we consume. We buy very few things, outside... perhaps there is a moment in which we don't have potatoes, and then we must buy potatoes... yes, I buy potatoes from my neighbour, not only because I know where they are from, but also because it's handy. Because potatoes are there, my neighbour makes them and I buy them from him, rather than going to the supermarket (Carlo, farmer).

In this way, food embodies the same meanings related to the practice of self-production which give meaning to production choices. As shown by Figure 8, the transformation of meanings implies the re-evaluation of the material's role in building practice: such materials involve ancient seeds, animal labour, old growing methods but also new approaches to preserving nature and health, such as organic, holistic, synergistic, or biodynamical farming. Rediscovering or reinventing production methods coming from the peasant tradition aims to re-affirm the nature value in co-producing food: as underlined by Van der Ploeg (2018), agriculture could be seen as the encounter between the social sphere and the material sphere.

Another [important] thing is another conception of time, for sure. Another conception of the use of your body. Of the relationship with the seasons (Giovanna, farmer).

The importance of materiality in building culture in the rural field has historical evidence in the forms of customs to celebrate agricultural cyclical moments, such as the harvest time in ancient Greek and Roman society or the festivities during the sprout of the plants in Mesopotamia (Buttitta, 2006, p. 33). Moreover, the spiritual side of materials in agriculture is linked to specific cultural patterns imparted through generations, influencing social knowledge as well as social practices. As Reckwitz observed,

a specific social practice contains specific forms of knowledge. For practice theory, this knowledge is more complex than "knowing that." It embraces ways of understanding, knowing how; ways of wanting and of feeling that are linked to each other within a practice... This way of understanding is largely implicit and largely historically-culturally specific (Reckwitz, 2002, pp. 253–254).

Looking at the cultural and technological transformations involving food and agriculture, today, it is possible to observe an integrative respectful approach about nature and work, which is reflected by production practices, requiring not only practical and physical competencies but also environmental and social awareness.

When someone acts, all actions have a consequence, also on what they produce, and on relationships with other people... Of course, I am more inclinable to purchase, or to supply some products I don't have from people near to me, because I know how they work and therefore we are in a more positive connection. Then, we cannot do everything in this way, but we do the more we can (Alberto, farmer).

If social practices are considered to be "a better target of intervention for sustainability policy than 'behavior,' 'choice,' or technical innovation alone" (Spurling, Shove, McMeekin, Southerton, & Welch, 2013, p. 4), it is useful to observe that as one element changes, it affects not only a single practice, but also the other practices to which that element is connected.

2.2. Self-Production as a Practice between Practices: Re-thinking the Circuit of Culture using Theory of Practices

Self-production is not an isolated practice in the farmer's life or in the AFN context, but it is part of a network of practices, which help to develop and disseminate schemes, ideas, other practices, and social networks into alternative ways of producing, consuming, and marketing. The aim of this section is to explore the relations that tie self-production to social-economical context, thereby underlining the opportunity to use the circuit of culture and the five processes through which "meanings are made and shared within and among cultures" (Leve, 2012). Each of these processes, however, consists of multiple, interrelated practices of sharing materials, competencies, and meanings. Considering practices as events that occur in everyday life, we can consider also the identity building process taking place through practices, as everyday life choices, participation in groups or networks, and ways of self-representation.

In order to understand how to create a more sustainable social and environmental system, the circuit elaborated here, including the theory of practices model and thinking of processes as made up of practices, helps us to observe the interrelations and the influences inside the practice system. Therefore, we are able to analyse the relationships among materials, meanings, and competencies in practices and among practices. *Processes* and *practices* are not synonymous: when we speak of practices, we must consider the role of routine which, in the reproduction of practices, allows us to observe recognizable patterns in the activities done by individuals in different times, ways, and spaces.

Replacing production as process with the practice of self-production, we observe how this change generates different identities, representations, norms, and forms of consumption inside the AFNs. This is particularly important because

in contrast to conventional food enterprise development, AFNs are faced with a wider range of possible operational destinations... In general [while] agro-food systems have well-defined sets of roles, models of interactions, trajectories, development stages... AFNs must find a path that allows them to compete in the system that has been designed for

other types of goals — thus they have to creatively identify materials and resources within local contexts and use them to their advantage (Grivins, Keech, Kunda & Tisenkopfs, 2017, p. 343).

The debate on prosumerism, the overlap of production with consumption, has underlined the capability of consumers to produce and to cultivate meanings within different AFNs. Through the model we designed in Figure 9, one can observe the contribution enacted by small farmers in enriching AFNs starting from their local context, habits, and routines.

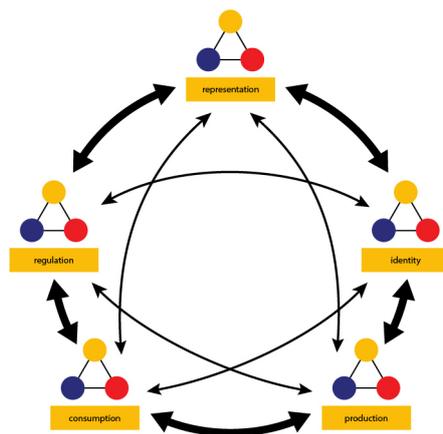


Fig. 9. Re-thinking the Circuit of Culture using Theory of Practices

Given the observed ties around production, we can consider the influence of identity in affecting the involvement of the self-production practice.

We may say that in my life the speech about to make things by yourself, to make the garden, isn't it? To make honey, to take care of your animals, from a biological point of view has been so natural... because [in my family] we ate the same vegetables we produced, the same honey, the same meat. And so, there was an absolute attention to hold them clean, not to give them medicines, try to save them with natural methods (Lucia, farmer).

In this way, the routine coming from family tradition influences recruitment into the self-production practice, enriching meanings and affecting materials and skills of the practice.

Consumption also impacts involvement in self-production practices, evaluated in terms of ethics, values, beliefs, and meanings. The importance of quality of food leads consumers to prefer production methods that are deemed to be as natural as possible. In this sense, we can consider self-production in the context of food as a practice born of consumption.

Interacting with the market is necessary not only to make use of a farm's surpluses, but also to support farmers when the farm cannot cover all the family needs. In this case, identity and production affect consumption in terms of consciousness. For this reason, it is preferred, wherever possible, to exchange with people who frequent same markets.

All the things that I don't produce, like oil, or flour... but there are some cheeses, some milk, sometimes. I know that there are people who produce these things in a certain way. So, I can exchange with some acquaintance or friend, because perhaps they don't have what I produce, and so we exchange our products (Giacomo, farmer).

Networks built upon self-production and self-produced food create, in this way, the conditions to build new consumption materials, such as new informal market spaces adopted by AFNs, and to enrich the consciousness around meanings and know-how associated with consumption.

Well, we always try to build some network of collaboration. We say that the relationships that we establish are always... I mean, from the sale, to the purchase of the beasts, simply it is however a relationship between equals. Then this is a collaborative relationship, et cetera, based also on the respect of work, and of the others, and of my own work. Here we say, that this is really the way to have relationships with others. And from here, all the other things that'll come, will be good (Marta, farmer).

The relationship among production, consumption, and identity influences regulation practices. One of the most relevant cases is that of the Participated Certification. This alternative certification system has been created by consumers and producers in local markets with the aim of avoiding the institutional method. Moreover, the need to create this system has been conceived in order to protect small producers both from bureaucracy and high taxation. The ability to generate this system derives from a shared understanding of the difficulties and of the potentials of a small producer to create something that is not only self-produced.

Through this use of the circuit, it is possible to observe the interaction among the individual elements of practices, and how the continuous negotiation among them produces the redefinition of living and working conditions, of meanings, and of norms.

The combined-approach using the theory of practices and the circuit of culture has allowed us to understand how a practice changes over time, affecting the other practices to which it is related. As we saw in the first subsection, when one element changes, it influences the whole practice. In this sense, it is possible to observe how the cultural turn in agriculture derives from the influence of meanings on skills and materials. In the second subsection, we observed in depth the complex relational system of self-production practice in the context of AFNs. We have underlined the mutual interactions among practices and defined a continuous transformation process involving people, their daily activities, and their relations with the market. Through this combined approach, we can understand practice in all its complexity, considering the recruitment into practice as connected to, and dependent on, other practices.

Conclusion

In this contribution, we have advanced some considerations about the advantages that can derive from studying phenomena of material culture using a combination of two heuristic tools, namely the circuit of culture and the theory of practices, as proposed respectively by Du Gay et Al. (1997) and Shove et Al. (2012), respectively. We have compared the two heuristic tools and highlighted those points that would make them compatible and usefully integrated. In particular, we highlighted that both groups of scholars are aware of the need to explain specific and daily practices. Moreover, we learned that they wish to accomplish this task without forgetting the connections of these practices with the phenomena, knowledge, rules, and teleological orientations that go far beyond single practices and that constitute the ties among people, artefacts, non-human agents — in a phrase, "the social" itself. The most recent advances in the theory of practices demonstrate how authors are committed to gaining a more precise sense of the cultural activities that underlie practices and provide a common cultural framework to social actors.

The circuit of culture elucidated the connections among practices, and among arrangements of practices. Since it is designed to highlight the complex of processes to which practices give rise, the circuit of culture was helpful also in understanding which parts of a practice are more likely to influence the agents in others. The circuit, therefore, fostered an understanding of power's effect on practices. The practice theory tool on the other hand allowed a deeper understanding of the emotional work done in the practice. Moreover, it highlighted the linkages among cultural activities, materials, and practitioners' competencies as well as the role of those linkages in reproducing and transforming practices. Finally, the comparison of these two heuristic tools allowed us to discriminate between practical events disappearing in the flow of the enactments and practice as entities and broader processes.

In order to prove the efficiency of our comparison, we used these tools to explore two case studies related to a technological artefact and a type of agricultural cultivation. This combination allowed us

to deconstruct the objects and their material properties by analysing them as they are used by people in everyday life — in this specific case, in working or prosuming practices. More broadly, it has allowed us to understand the relationship among the artefacts, the practices in which they are inserted, and the broader socio-technical system and cultural context of discourses, regulations, and constellations of institutionalized practices to which they belong.

References

- Alkemeyer, T., & Buschmann, N. (2017). Learning in and across Practices. Enablement as Subjectivation. In A. Hui, T.R. Schatzki & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (1st ed.) (pp. 8–23). London & New York: Routledge, Taylor & Francis Group.
- Appadurai, A. (Ed.). (1986). *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge (Cambridgeshire) & New York: Cambridge University Press.
- Barbera, F., Dagnes, J., Salento, A., & Spina, F. (Eds.). (2016). *Il Capitale Quotidiano: Un Manifesto per l'Economia Fondamentale*. Roma: Donzelli.
- Bertell, L. (2016). *Lavoro Ecoautonomo: Dalla Sostenibilità del Lavoro alla Praticabilità della Vita*. Milano: Elèuthera.
- Bertell, L., & Aime, M. (Eds.). (2013). *Davide e Golia: La Primavera delle Economie Diverse (GAS, DES, RES)*. Milano: Jaca Book.
- Bostrom, N. (2014). Why I Want to Be a Posthuman When I Grow Up. In R.L. Sandler (Ed.), *Ethics and Emerging Technologies* (pp. 218–234). London: Palgrave Macmillan. https://doi.org/10.1057/9781137349088_15
- Brombin, A. (2015). Faces of Sustainability in Italian Ecovillages: Food as "Contact Zone." *International Journal of Consumer Studies*, 39(5), 468–477. <https://doi.org/10.1111/ijcs.12225>
- Buttitta, I. (2006). *I Morti e il Grano: Tempi del Lavoro e Ritmi della Festa*. Roma: Meltemi.
- Caillavet, F., Guyomard, H., & Lifran, R. (Eds.). (1994). *Agricultural Household Modelling and Family Economics*. Amsterdam & New York: Elsevier.
- Castells, M. (2009). *The Rise of the Network Society* (1st ed.). Cambridge, MA: Blackwell Publishers. <https://doi.org/10.1002/9781444319514>
- Corrado, A. (2010). New Peasantries and Alternative Agro-food Networks: The Case of Réseau Semences Paysannes. In A. Bonanno, H. Bakker, R. Jussaume, Y. Kawamura, & M. Shucksmith (Eds.), *Research in Rural Sociology and Development*, Vol. 16 (pp. 17–30). Bingley, UK: Emerald. [https://doi.org/10.1108/S1057-1922\(2010\)0000016005](https://doi.org/10.1108/S1057-1922(2010)0000016005)
- Culbertson, H., Schorr, S.B., & Okamura, A.M. (2018). Haptics: The Present and Future of Artificial Touch Sensation. *Annual Review of Control, Robotics, and Autonomous Systems*, 1(1), 385–409. <https://doi.org/10.1146/annurev-control-060117-105043>
- De Certeau, M., & Rendall, S. (1984). *The Practice of Everyday Life*. Berkeley: University of California Press.
- Douglas, M., & Isherwood, B. (1996). *The World of Goods*. London: Routledge. Retrieved from <http://public.eblib.com/choice/publicfullrecord.aspx?p=170084>
- du Gay, P., Hall, S., Janes, L., Madsen, A.K., Mackay, H., & Negus, K. (Eds.). (1997). *Doing Cultural Studies: The Story of the Sony Walkman*. London & Thousand Oaks (California): Sage, in association with The Open University.
- du Gay, P., Hall, S., Janes, L., Madsen, A.K., Mackay, H., & Negus, K. (Eds.). (2013). *Doing Cultural Studies: The Story of the Sony Walkman*. London & Thousand Oaks (California): Sage, in association with The Open University.
- Grivins, M., Keech, D., Kunda, I., & Tisenkopfs, T. (2017). Bricolage for Self-Sufficiency: An Analysis of Alternative Food Networks: Bricolage for Self-Sufficiency. *Sociologia Ruralis*, 57(3), 340–356. <https://doi.org/10.1111/soru.12171>

- Hall, S., & Du Gay, P. (Eds.). (1996). *Questions of Cultural Identity*. London & Thousand Oaks (California): Sage.
- Hall, S., Evans, J., & Nixon, S. (Eds.). (2013). *Representation* (2nd ed.). Los Angeles: Milton Keynes; United Kingdom: Sage & The Open University.
- Hicks, D., & Beaudry, M.C. (Eds.). (2010). *The Oxford Handbook of Material Culture Studies*. Oxford & New York: Oxford University Press.
- Hui, A., Schatzki, T.R., & Shove, E. (Eds.). (2017). *The Nexus of Practices: Connections, Constellations, Practitioners* (1st ed.). London & New York: Routledge, Taylor & Francis Group.
- Ingram, J., Shove, E., & Watson, M. (2007). Products and Practices: Selected Concepts from Science and Technology Studies and from Social Theories of Consumption and Practice. *Design Issues*, 23(2), 3–16. <https://doi.org/10.1162/desi.2007.23.2.3>
- Latour, B. (1990). Technology is Society Made Durable. *The Sociological Review*, 38(1 suppl.), 103–131. <https://doi.org/10.1111/j.1467-954X.1990.tb03350.x>
- Leve, A.M. (2012). *The Circuit of Culture as a Generative Tool of Contemporary Analysis: Examining the Construction of an Education Commodity*. Joint AARE APERA International Conference, Sydney.
- Lu, T. (2016). *Design and Realization of a Desktop Micro-Manipulation Cobotic Platform* (Ph.D. Dissertation). Université Pierre et Marie Curie - Paris VI, Paris.
- Miller, D. (2010). *Stuff*. Cambridge: Polity Press.
- Monteiro, E., & Hanseth, O. (1996). Social Shaping of Information Infrastructure: On Being Specific about the Technology. In W.J. Orlikowski, G. Walsham, M.R. Jones, & J.I. Degross (Eds.), *Information Technology and Changes in Organizational Work* (pp. 325–343). London: Springer. https://doi.org/10.1007/978-0-387-34872-8_20
- Nicolini, D. (2013). *Practice Theory, Work, and Organization: An Introduction* (1st Ed.). Oxford: Oxford University Press.
- Nigh, R., & González Cabañas, A.A. (2015). Reflexive Consumer Markets as Opportunities for New Peasant Farmers in Mexico and France: Constructing Food Sovereignty Through Alternative Food Networks. *Agroecology and Sustainable Food Systems*, 39(3), 317–341. <https://doi.org/10.1080/21683565.2014.973545>
- Polanyi, M. (1966). *The Tacit Dimension*. Garden City, New York: Doubleday.
- Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243–263. <https://doi.org/10.1177/1368431022225432>
- Reckwitz, A. (2017). Practices and Their Affects. In A. Hui, T.R. Schatzki & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (1st ed.) (pp. 114–125). London & New York: Routledge, Taylor & Francis Group.
- Sakr, S., Daunizeau, T., Reversat, D., Regnier, S., & Haliyo, S. (2018). A Handheld Master Device for 3D Remote Micro-Manipulation. *2018 International Conference on Manipulation, Automation and Robotics at Small Scales (MARSS)*, 1–6. <https://doi.org/10.1109/MARSS.2018.8481194>
- Schäfer, M., Hielscher, S., Haas, W., Hausknot, D., Leitner, M., Kunze, I., & Mandl, S. (2018). Facilitating Low-Carbon Living? A Comparison of Intervention Measures in Different Community-Based Initiatives. *Sustainability*, 10(4), 1047. <https://doi.org/10.3390/su10041047>
- Schatzki, T.R. (1996). *Social Practices: A Wittgensteinian Approach to Human Activity and the Social*. New York: Cambridge University Press.

- Schatzki, T.R. (2002). *The Site of the Social: A Philosophical Account of the Constitution of Social Life and Change*. University Park, Pa.: Pennsylvania State University Press.
- Schatzki, T.R. (2017). Sayings, Texts and Discursive Formations. In A. Hui, T.R. Schatzki & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (1st ed.) (pp. 126–140). London & New York: Routledge, Taylor & Francis Group.
- Schatzki, T.R., Knorr-Cetina, K., & Savigny, E. von (Eds.). (2001). *The Practice Turn in Contemporary Theory*. New York: Routledge.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. Los Angeles: SAGE.
- Spaargaren, G., Weenink, D., & Lamers, M. (Eds.). (2016). *Practice Theory and Research: Exploring the Dynamics of Social Life*. London & New York: Routledge, Taylor & Francis Group.
- Spurling, N., Shove, E., McMeekin, A., Southerton, D., & Welch, D. (2013). *Interventions in Practice: Re-framing Policy Approaches to Consumer Behaviour*. Sustainable Practices Research Group Report.
- Suchman, L., Trigg, R., & Blomberg, J. (2002). Working Artefacts: Ethnomethods of the Prototype. *British Journal of Sociology*, 53(2), 163–179. <https://doi.org/10.1080/00071310220133287>
- Thompson, K. (Ed.). (1997). *Media and Cultural Regulation*. London & Thousand Oaks (California): Milton Keynes: Sage Publications & Open University.
- Tilley, C.Y. (Ed.). (2013). *Handbook of Material Culture* (1st ed). London: Sage.
- Van der Ploeg, J.D. (2018). *I Contadini e L'Arte dell'Agricoltura. Un Manifesto Chayanoviano*. Turin: Rosenberg & Sellier.
- Viteritti, A. (2012). Sociomaterial Assemblages in Learning Scientific Practice: Margherita's First PCR. *TECNOSCIENZA: Italian Journal of Science & Technology Studies*, 3(1), 29–48.
- Warde, A. (2005). Consumption and Theories of Practice. *Journal of Consumer Culture*, 5(2), 131–153. <https://doi.org/10.1177/1469540505053090>
- Warde, A., & Welch, D. (2017). How Should We Understand "General Understandings"? In A. Hui, T.R. Schatzki & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (1st ed.) (pp. 183–196). London & New York: Routledge, Taylor & Francis Group.
- Watson, M. (2008). The Materials of Consumption. *Journal of Consumer Culture*, 8(1), 5–10. <https://doi.org/10.1177/1469540507085668>
- Watson, M. (2017). Placing Power in Practice Theory. In A. Hui, T.R. Schatzki & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (1st ed.) (pp. 169–182). London & New York: Routledge, Taylor & Francis Group.
- Wilbur, A. (2013). Growing a Radical Ruralism: Back-to-the-Land as Practice and Ideal: Growing a Radical Ruralism. *Geography Compass*, 7(2), 149–160. <https://doi.org/10.1111/gec3.12023>
- Williams, R. (1973). *The Long Revolution* (1965). Harmondsworth: Penguin Books.
- Wilson, M. (2003). Rhetoric of Enrollment and Acts of Resistance: Information Technology as Text. In E.H. Wynn, E.A. Whitley, M.D. Myers, & J.I. Degross (Eds.), *Global and Organizational Discourse About Information Technology* (pp. 225–248). Boston, MA: Springer.
- Woodward, I. (2007). *Understanding Material Culture*. Los Angeles: Sage Publications.

Emanuela Mora: University Cattolica del Sacro Cuore, Milan (Italy)

📄 <https://orcid.org/0000-0003-0906-9074>

✉ emanuela.mora@unicatt.it

Emanuela Mora is Professor of Culture and Communication Sociology at the Faculty of Political and Social Sciences of the University Cattolica del Sacro Cuore in Milan. She is director of ModaCult (Centre for the study of fashion and cultural production), and director of the PhD School in Sociology at the same University. She is Co-editor in chief of the *International Journal of Fashion Studies*. Since 2004 she has worked on the theme of sustainable fashion and consumption, both in Italy and abroad. Among her books: *Fare Moda. Esperienze di Produzione e Consumo* (Bruno Mondadori, 2009); *Fashion Tales. Feeding the Imaginary* (with M. Pedroni as eds., Springer, 2017).

Eleonora Noia: University Cattolica del Sacro Cuore, Milan (Italy)

Eleonora Noia is a PhD student in Sociology at the University Cattolica del Sacro Cuore in Milan. Her research investigates the nexus between practices and networks within the context of the small farmer agriculture in Italy.

Valentina Turrini: University Cattolica del Sacro Cuore, Milan (Italy)

Valentina Turrini is a PhD student in Sociology at the University Cattolica del Sacro Cuore, Milan. Her research focuses on the connections between media, sensoriality and society. She is currently writing a dissertation on the social shaping of emerging technologies that digitalize tactile sensations. Her interests include media-related practices in urban space.

Cycles of *Dispositions–Unfoldings*. A Retro-ANT View of Practices

Alvise Mattozzi*

Submitted: June 2, 2019 – Accepted: December 29, 2019 – Published: December 31, 2019

Abstract

The present contribution intends to probe a view of practices as cycles of disposition and *unfoldings* or, which is the same, of *virtualities* and *actualizations*, and to show how such view allows not only to take artefacts into account, but also to account for their contribution to the unfolding of practices. A specific practice, related to squeezing oranges in a sink by using *Juicy Salif*, the (in)famous Philippe Starck's squeezer, is exploited as empirical ground for exemplification. In order to probe the proposed view of practices as cycles of disposition and *unfoldings*, the present contribution engages in an epistemological and in a methodological reflection. On the one hand, it investigates the role of *dispositions–virtualities* in past and present approaches to practices. On the other, it recovers the disused Actor-Network Theory's notion of "script" as a way to describe-analyze artefacts' dispositions or *virtualities* and thus accounting for their contribution to practices. In the end, the paper, by investigating the role of *dispositions–virtualities*, recovers the structuralist legacy to the reflection on practices, showing how Actor-Network Theory can be considered a "distributed structuralism".

Keywords: Actor-Network Theory; Actualization; Design; Script; Structuralism; Virtuality.

Acknowledgements

The present article is the outcome of two previous versions revised and commented by the two editors of this Symposium and by two anonymous reviewers, which I thank. In part, it is also the outcome of the discussion around it developed within the research group on artistic practices present in my Faculty and of the attentive reading and thoughtful comments provided by Elisabeth Tauber. Because of temporal and spatial constraints, their contributions in form of suggestions and critiques have not been integrated as much as I would have liked, however they have been key for the partial rewriting of the paper and for my reflection on the issue. I warmly thank them all: besides the already mentioned Elisabeth, Stephan Schmidt-Wulffen, coordinator of the research group, Francesca Brusa, Valeria Burgo, Giulia Cordin, German A. Duarte, Roberta Raffaetà, Elisabetta Rattalino, Daniela Salvucci and Andreas Metzner-Szigeth, coordinator of the Research Cluster "Enable", of which the group is part.

* Free University of Bozen-Bolzano (Italy); ✉ amattozzi@unibz.it;  <https://orcid.org/0000-0002-7917-3099>

1 Introduction



Fig. 1. Squeezing oranges in the sink.

The picture above (Figure 1) is not sharp enough to clearly see what is happening — I took it around fifteen years ago, with an early non-professional digital camera. Nevertheless, even if the picture were sharper, it would be still quite difficult for you to discern what is happening, unless you know about design. Then, you would recognize that the hands at the center of the picture are using *Juicy Salif (JS)*, the squeezer designed by Philippe Starck and produced by Alessi in 1991, in a sink.

I am going to exploit such practice, part of a larger practice related to breakfast preparation, in order to reflect upon practices and approaches to practices.

It is not the first time I analyze this case (Mattozzi, 2010), but it is the first time I tackle it as a practice. However, already in the previous article I resorted to the notion of *script* and to the descriptive-analytical practice of *de-description* (Akrich, 1992; Akrich & Latour, 1992; Latour, 1988; Latour, 1992; Latour, 2000) in order to attempt what I will try to achieve here — taking into account and accounting for the specific contribution of the squeezer to such practice.

The present article is, then, empirically grounded. However, it has an epistemological-methodological character.

Methodological, because I will address the issue of *how to* describe–analyze artefacts taking part to practices or, better, *how to* describe–analyze the contribution of specific artefacts to the *unfolding* of a specific practice.

Epistemological, because, in order for the proposed method — related, as I said, to *de-description* or *script analysis* or *script approach* — to be not only recovered, but actually recognized as a descriptive-analytical method and used as such, I need to open a space in the present epistemological arrangement. I need, in other words, to create the conditions of possibility for it to be thought as a method.

Given the fact that, by referring to *script* and *de-description*, I will stick to “classical ANT”’s descriptive notions, categories and models — in order, though, to delve into them and probe their present productivity —, I consider mine as a *retro-ANT* contribution to the reflection on practices.¹

1. Because of space constrains, I will limit the discussion to the debate around practices and, thus, I will not address directly issues related to after- and post- ANT. However, I hope to show that delving into “classical ANT” can outline ways to tackle them. Somehow, claiming my approach as “retro-” allows me to presentify “old” categories, without the need to justify them through a full historicization. Elsewhere (e.g., Mattozzi, 2010), I also addressed the issue of how to extend and

My *retro*- approach and the necessity of an epistemological clarification will also lead me to reconsider the structuralist legacy to approaches to practices. Indeed, we need to take into account that the first reflection on practices, carried out by Pierre Bourdieu, Anthony Giddens and Michel de Certeau, emerged as a way to problematize structuralism, and not to dump it, as it later happened. By recovering such legacy, I will finally show how ANT can contribute to rearticulate it, through what I will call a “distributed structuralism”.

2 A Squeezer in the Sink

Whereas many of the readers will be surprised to see a squeezer used in the sink, those who know a bit about design will be very likely surprised to see specifically that model of squeezer used — in the sink or anywhere else.

Indeed, *JS* has spurred, within the product design field, a controversy (Gonzalez, 2007; Mattozzi, 2010) — “is it an object of use or contemplation?” (Julier, 2013, p. 88). Many design critics, scholars and practitioners have questioned its usability and there is a general agreement on the fact that *JS* is “unusable” (Koskinen, 2005, p. 21), up to proposing that *JS* is not even a designed product, given its many flaws, like the fact that “it spills everywhere and [that] it does not have anything to keep seeds apart from the juice” (Magistà, 2000, my translation). Others have acknowledged some qualities of *JS*, even if not directly related to squeezing, such as the fact that

- it elicits conversations (Lloyd & Snelders, 2003, p. 246), as also Starck seemed to have proposed (Julier, 2013, p. 90),
- it allows an aesthetic experience, which, at least, “pleases the eyes” (Russo & DeMoraes, 2003, p. 146)
- it can also produce visceral reactions, being “bizarre, but delightful” (Norman, 2005, p. 113).

Some others have however acknowledged the fact that the “form of its main body [...] spells out its method of use” (Khaslavsky & Shedroff, 1999, p. 47) and that, in the end, it disposes a “sensual experience”, showing “a way out of the purely instrumental approach to daily routine utensils” (Brix, 2008, p. 37) and that this produces a seduction (Gonzales, 2007).

At the time, when I saw for the first time *JS* used in the sink in the house of my family’s friends, I knew about the controversy, since, while finishing my Ph.D. thesis about artefacts, their meanings and their social role, I also started working as teaching assistant in the Faculty of Design and Art of IUAV, the Architectural School of Venice, thus getting more and more knowledgeable about design. Thus, when I saw it used in that way within the everyday practice of preparing breakfast, I was startled. I took the pictures (Figures 1 and 2) — asking the woman to pose for Figure 2, given it was a dismissed practice — initially thinking of using them just as an example for the students. Of course, my curiosity and request for pictures elicited a conversation. However, besides being surprised of my surprise, the woman in the picture did not say much, given that she never really reflected upon her practice. It was somehow taken for granted, having become a routine. However, she said that her husband bought the squeezer, after having seen it at a party, fascinated by the display of the falling flow of juice. Once in the house, it became part of the kitchen tools.

She started to use it for the everyday morning orange juice² of the husband. Initially, she used to squeeze oranges on the kitchen peninsula (Figure 2). However, given the height of the squeezer, given the height of the peninsula, such everyday routine required quite an effort — a bit too much, given also her age. Therefore, she aimed at a lower surface, which she encountered just behind her — the sink

integrate the *script* model. I will not address the issue here, limiting myself in using just the tools proposed by Akrich and Latour.

2. Up to the moment one of the reviewers made me notice that usually *JS* is considered a lemon-squeezer, I never thought that squeezing oranges with it could result almost as awkward as using it in the sink. It is true that official pictures usually portray *JS* in relations to lemons, however Alessi’s catalog addresses it as a generic citrus squeezer and it also displays a picture of it with oranges.



Fig. 2. Using *JS* on the kitchen peninsula

(Figure 3). Not only it was the only other surface available around, but she was already familiar with it, since she would wash *JS* in it, after use on the peninsula.

Once *JS* in the sink, she was able to exert all her strength and her body weight (Figure 1). Eventually, another issue found an arrangement, which, considered positive by the woman in the picture, allowed the stabilization and the routinization of this practice: cleanliness. The fact that *JS* is easily cleanable — precisely because it lacks the sieve, considered by many a lack — has, as far as I know, never been noted by both praisers and critics of the object: water follows the same flow of the juice and takes away all the pulp scraps left over the squeezer. Using it into the sink just makes this cleaning procedure easier and, basically, instantaneous. Moreover, once in the sink, also the issue of spill-overs — still related to cleanliness — found its appeasement. The sink is indeed a place for spill-overs, made for tools like colanders, which are built to spill.

3 Domestication and Design

The practice we saw in the picture is a vivid case of domestication (Silverstone, Hirsch & Morley, 1992; Silverstone & Haddon, 1996), i.e. of “consumer’s appropriation [of technologies and objects], by taking [them] home or into other private cultural spaces, and in making, or not making, them acceptable and familiar” (Silverstone & Haddon, 1996, p. 46).

It may be that approaches to domestication did “not go quite far enough”, not providing “a more encompassing account of the co-production of practice” (Shove & Pantzar, 2005, p. 62). Nevertheless, we cannot but acknowledge that “domestication theory” is one of the first attempt to consider practices within the sociology of consumption. Indeed, practices have started to be taken into consideration when the notion of “appropriation” has been borrowed from anthropology “in order to capture the importance of people ‘domesticating’ mass-produced and alien products, endowing them with particular personal meanings and converting them into items to be made use of and enjoyed for their own practical purposes” (Warde, 2014, p. 283).

We need also to acknowledge that “domestication theory” has been not only one of the first approaches to problematize what happens to goods when brought “home or into other private cultural spaces”, but also to problematize what happens before “domestication” and how what happens before affects “domestication”. Indeed, Roger Silverstone & Leslie Haddon (1996) besides “domestication” ad-

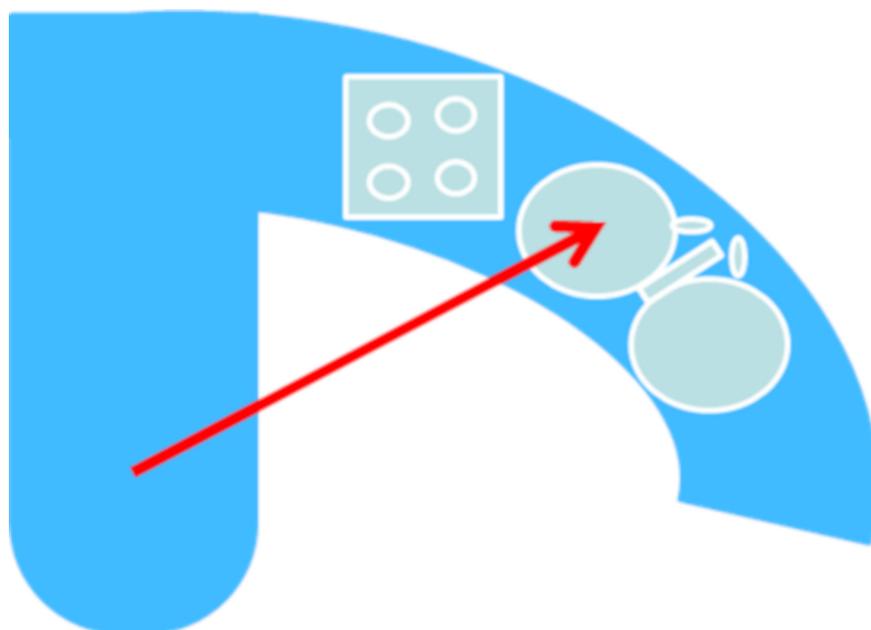


Fig. 3. Map of the kitchen and movement of JS.

dressed also “design”. For them, “design” is not only tasked with “creating the artefact”, but also with “constructing the user” and “catching the consumer”. Whereas “catching the consumer” is more related to marketing and to designers as a cultural intermediaries (Du Gay et al., 1997) and, hence, to consumption as purchase, “constructing the user” is more related to consumption as “a process whereby agents engage in appropriation and appreciation” (Warde, 2005, p. 137).

It is no coincidence that, as an example of researches that explores how design construct the user, Silverstone & Haddon mention Science and Technology Studies — specifically, Woolgar (1991). Other relevant references for “constructing the user” could have been Akrich (1992) and Latour (1992; Akrich & Latour, 1992), who, in the same period, proposed the notion of *script*, in order to account for, on the one hand, how designers inscribe possible user actions and situations in artefacts (Akrich, 1992), and, on the other, the way an artefact predispose user actions (Latour, 1992 & 2000).

Because of the anticipatory work that Silverstone & Haddon (1996) saw taking place within the designing phase, they (p. 46) concluded that “[d]omestication is anticipated in design and design is completed in domestication.”

4 What Practices Are Made of

I can rephrase Silverstone & Haddon’s sentence by saying that design *disposes* domestication and that domestication *unfolds* design.

What *disposes* provides possibilities or impossibilities — what we could also call affordances or, using Akrich and Latour’s (1992) vocabulary, *allowances* and *prescriptions*. These possibilities or impossibilities can or cannot be *unfolded* or can be *unfolded* only partially. It is the *unfolding* process that extracts from what *disposes* certain possibilities or impossibilities.

Getting back to the squeezer case, the height of the squeezer, for instance, has been *unfolded*. However, initially, with the squeezer on the peninsula, it has been *unfolded* as hampering and withholding user’s competences. Then, once the squeezer in the sink, it has been *unfolded* as allowing user’s competence.

Nevertheless, height could have been not *unfolded*, if, for instance, JS were used as a weapon by brandishing it through the bulb used as a handle. In such a case, the bulb were *unfolded* as a graspable part, something that does not take place while squeezing.

Disposition–unfolding, is then a relation, which does not entail any form of determinism or “essentialism” (Jarzabkowski & Pinch, 2013) and that only in very specific and exceptional cases, where the relation *disposition–unfolding* is drastically constrained, can be seen as a cause-effect relation.³

The relation *disposition–unfolding* entails a translation, a process through which something is extracted by a translating *dispositif* from a source and placed in target transformed. In ANT terms, a “displacement [...] through other actors, [which/]whose mediation is indispensable for any action to occur” (Latour, 1999, p. 311)⁴ — *JS*’s height, through the peninsula or through the sink, is translated, in one case as enabling and in the other as disabling user’s efforts.

As we can see, through the translation, some features of an artefact are *actualized*, others are not. They remain *virtual*. The relation *disposition–unfolding* can be then seen as a tension between a *virtuality* and an *actuality* (Deleuze, 1995; Latour, 2005; especially for design, Marenko, 2018). An artefact, then, entails a *virtuality*, i.e. “manifold tendencies and propensities” (Marenko, 2018, p. 4) related to actions, but also to meanings, perceptions, etc. These tendencies can get *actualized* in various ways and at various degrees.

Virtualities, however, are not only presupposed by artefacts, but by any configuration with a relative stability, be it provided by artefacts, living bodies, routines, activities, rules, conventions, symbols, representations, practices themselves.

Therefore, within the framework that I am outlining, practices can be seen as cycles of passages between *virtualities* and their *actualizations* or, which is the same, between *dispositions* and their *unfoldings*. I refer to “cycles” because each *actualization–unfolding* will give way to a relative stable configuration, which in turn, will work as a *virtuality–disposition* for another *actualization–unfolding*, and so on.

The practice of squeezing oranges in the sink, for instance, *actualizes JS* and its action as inconspicuous, contrary to the kind of *actualization* very likely Stark and Alessi intended to *dispose* in the artefact, by making it taller than usual home squeezers and by making the flow of the juice visible. As I was told, the husband of the woman using *JS* in the sink, bought it because it *disposed* the visibility of the juice. Given that the configuration *JS+sink* *disposes* a certain inconspicuousness of the squeezer, as well as of the juice, and given that, consequently, such configuration, does not comply with the initial wish of the husband, then the configuration *JS+sink* *disposes*, in turn, a certain kind of husband-wife relation and of familial practices.

5 How to Account for Practices

Within the framework I am outlining, accounting for practices means to reconstruct these passages, by observing and describing—analyzing *unfoldings* and, from there, reconstructing the *dispositions* then *unfolded*.

These cycles of *dispositions* and *unfoldings* are evidently dense, being also reversible and being intersected and intersecting other cycles — for instance, squeezing oranges in the sink intersects with providing the right lighting, in a secluded place like the sink in that kitchen, or with cleaning the sink and emptying it from possible dishes and cutlery left from the night before, something that usually the husband does.

Accounting for practices requires, then, some sort of discretization of such density. Therefore, no account can reconstruct all the passages defining a practice. What to focus on depends, like in any scientific observation, on the tension between an observing *dispositif* and what is observed — such tension being a practice too, of course, in which the observing *dispositif* *unfolds* what *disposed* by what is observed.

Despite the definition of practices I am proposing results very general and very abstract, and despite it could work to define practices’ hypernyms, like processes or becomings, I deem it provides a framework in order to actually consider the details through which a practice is constituted. These details, specific and concrete, characterizing *unfoldings* and their *dispositions*, are actually what needs to be attended to

3. For a critique of simple causality within the framework of approaches to practices, see among others, Schäfer (2017, p. 36) and Shove, Pantzar and Watson (2012, p. 144). For a way to reconsider, within ANT, issues usually addressed through the notion of “causality” in a way similar to the one I am proposing, see Latour (2005, p. 39, n. 30) and Mol (2010, pp. 257–258).

4. For the relevance of ANT’s notion of translation for approaches to practices, see Schäfer (2017).

in order to describe practices as practices. Or, said in another way, in order to account for practices it is not enough to ostensibly single out *unfoldings* and their *dispositions*, but it is necessary to describe–analyse in detail how *unfoldings* empirically take place, as well as how the *disposition* then *unfolded* are configured.

Of course, extending the notion of practice to any process, thus beyond “social” or human-related processes, as long as its empirical details are attended to, is just a way to *unfold* ANT’s principle of symmetry for practices. Such methodological stand does not prevent to recognize differences in the way emerging actors take part to a practice and then to associate such different ways to different kind of beings. Nor, such methodological stand does prevent to find out that a specific practice is made of “materials”, “competences” and “meanings” (Shove, Pantzar & Watson, 2012). It just asks not to assume these as *a priori* elements of practices.

6 What Practices Are Not (Always) Made of

Readers familiar with the present debate on practices will have recognized that the approach I am proposing distances itself from the most diffused ones that tend to see practices as composed by specific elements and by their relations. Specifically, my approach distances itself from *The Dynamics of Social Practices* (Shove, Pantzar & Watson, 2012), which, not only assumes practices to be always composed by “materials”, “competences” and “meanings”, but also, implicitly, reproduces a human/non-human dichotomy and an asymmetry between them in the very descriptive model — and, thus, before the observation of what *actually* happen in practice. Indeed, for Shove, Pantzar and Watson (2012) competences can be predicated only of humans. In order to support such claim, they set competences as completely separated from materials. By doing that, they are unable to see that competences can be predicated also of materials, or, that, more adequately said, competences are *unfolded* in practice and can be inscribed in, and thus be a *disposition* of both “people” and “materials” (Akrich & Latour, 1992; Latour (Johnson), 1988).⁵ For instance, *JS*, because of the absence of any horizontal surface and of the presence of converging grooves (Julier, 2013, p. 88), is able to let the juice flow down and make it stream in one point — something a traditional squeezer is not able to do, given that the sieve will make the juice drip in a scattered way. Moreover, through these same features, but also thanks to its verticality, it also provides a competence: it makes the user able to see the flow and the stream of juice. As Latour has many times noted, we need to always consider what an actor *does* — in relation to the *competences* it/s/he possesses — and what it/s/he *makes do* — in relation to the *competences* it/s/he provides.

In order to clarify this point, let us consider a more comparative example related to shaving as a practice. Shaving presupposes a competence — a *know-how* — related to the distance and to the angle at which the blade must be moved: if the blade is too close or too vertical in relation to the skin, then abrasions and cuts will result. This competence can be a skill embodied in a person through training — a barber, for instance — or inscribed in a material through design — notoriously, the safety razor “knows” at what distance and at what angle blades have to be kept. However, these inscribed competences are just *dispositions* and are not necessarily *unfolded* in practice — a drunk barber will very likely not *unfold* his/her competence; the presence of a pimple will not *unfold*, for that specific spot of skin, the competence of the safety razor.

What relevant, then, are not the elements constituting a practice, but, on the one hand processes, i.e. the tensions between *dispositions* and *unfoldings* and, on the other, the right descriptive-analytical tools to describe and compare how concretely *dispositions* and *unfoldings* take place in practice. As I will claim, these tools are provided by Akrich and Latour (1992; Latour, 1992)’s *script* framework.

5. As acknowledged by Shove, Pantzar and Watson themselves, *The Dynamics of Social Practices*, through its triadic model, introduces a simplification. Even considering all the best intentions of the authors, engaged in promoting a practice approach to decision makers in order to address in an adequate way sustainability issues, I wonder if the simplification Shove, Pantzar and Watson produce is not excessive. Shove et al. (2007, p. 57), for instance, maintained a higher level of complexity, assuming “that competence is distributed across human and nonhuman entities”.

7 Virtuality in Approaches to Practices

The notion of *disposition* has always been relevant for the reflection on practices, being related, for instance, to that of Pierre Bourdieu’s “habitus” as well as to Shove, Pantzar and Watson’s (2012) “competences”.

However, the relation and the possible coincidence between *dispositions* and *virtualities* has been much less explored, given also that *dispositions* are usually referred — as we have seen for competences — to humans and human bodies, whereas *virtualities*, when considered, have been referred, to structures by Anthony Giddens (1979) and, on Giddens’ trail, to artefacts by Wanda Orlikowski (2000).

For Giddens (1979), structures, intended as sets of enacted rules and resources that mediate social action, are *virtual*. Giddens (1979, p. 256), indeed, insists on the fact that structures “exist[...] only in a virtual way, as memory traces and as the instantiation of rules in the situated activities of agents.” As clarified in Whittington (1992, pp. 695–696), when Giddens says that structures are *virtual*, he means that they “have no reality, except as they are instantiated in activity or retained mentally as remembered codes of conduct or rights to resources.”

Orlikowski (2000) tried to use Giddens’ framework in order to account for technologies as bearers of structures, which are also in this case, as Giddens stated, only *virtual* and then non-existing, if not in practice, when *actualized*. Practices, indeed, “enact structures that are emergent through recurrent interactions with the technology at hand” (Orlikowski, 2000, p. 407).

Though the way Orlikowski (2000) translates Giddens in relation to artefacts is inspiring and close to the framework here proposed, the way Orlikowski (and Giddens) sees *virtuality* differs radically from what I am proposing, which is instead derived from Latour (2005), who, in turn, derives it from Gilles Deleuze (1995).

Whereas for Giddens, the *virtual* is not real and something *virtual* has no existence,⁶ except as “memory traces”, for Deleuze (1995), and consequently for Latour (2005), the *virtual* is real as much as the *actual*. They are two different but connected modalities of the existence. Moreover, the *virtual* is multiple (Marenko, 2017), whereas Giddens and Orlikowski see it more univocally, as a rule, which can be followed or not, or as a resource, which can be used or not.

Giddens’ and Orlikowski’s difficulties in considering *virtuality* as real are, eventually, not dissimilar from those of other practice scholars, who explicitly reject *virtuality* (Schatzki, 2002) or who do not consider *virtuality* at all. Take, for instance, Shove et al. (2007). In that essay, Shove and colleagues discuss how the value of design has been thought: or as inscribed by designers in artefacts, and therefore embodied by these artefacts; or as attributed by users; or as emerging from complex configuration of practices. In all three cases, value is considered as already *actualized*:

- in artefacts, e.g. *JS* as strange object, which elicits conversations, as Starck is rumored to have said (Julier, 2013, p. 90);
- in users’ interpretations, e.g. *JS* as a convenient tool which is easy to clean, as seen in the case here presented;
- or within practices, e.g. *JS* as an object more for contemplation than for use, given its lack of usability and given that it has been more and more promoted in such a way by Alessi, who has produced a gold coated version, on which packaging is clearly indicated that such object is not for use.

By considering only *actualizations*, approaches to practices miss relevant methodological aspects, which can be appreciated only through an historical detour into the epistemology of social sciences.

8 Virtuality: A Different Kind of Positivity

Deleuze’s perspective, later adopted by Latour, is the apex of a long tradition able to address the *virtual* as real, which has its origin not in philosophy, but in social sciences.

6. For Sewell (1992) even more.

Structuralism has always addressed structures as real, though not as *actual*. For Ferdinand de Saussure (1959, p. 14), for instance, language [*langue*], which is usually taken as a paragon of structure (see, for instance, Giddens, 1979, p. 10), “is concrete, no less so than speaking [*parole*]”, therefore structures, though *virtual*, exist in time and place (see also, Maniglier, 2006; *contra* Sewell, 1992). A language [*langue*] is, indeed, temporally and geographically situated.

As noticed by Patrice Maniglier (2006), in his reconstruction of the relations between de Saussure and structuralism, because linguistics, from where structuralism has emerged, does not work, as other sciences do, “with objects that are given in advance” (Saussure, 1959, p. 8), but by reconstructing their *virtuality*, it has needed to give way “to a new kind of positivity, a new way of being a fact”, which presupposes entities constituted only by relations, and, more specifically, by relations of difference (Maniglier, 2006, p. 12).

Such “new kind of positivity” — a *virtual* positivity, later framed by Deleuze as “transcendental empiricism” —, which is connected to the relational epistemology, allegedly assumed by most approaches to practices (Gherardi, 2019), is what Giddens, Orlikowski, together with the majority of approaches to practices, miss — or explicitly reject, as Schatzki (2002) does.

In this way, approaches to practices, focus only *actualizations* and then:

- they do not see any relevance in tools able to describe relations, which take place at a *virtual* level. These approaches tend to be content with the description of what *actualized* and with its framing in or through a theory.
- they are unable to fully appreciate mediation and, thus, to address mediating instances and translations. *Virtuality*, indeed, by taking place between two *actualizations* and reintroducing each time multiplicity is able to reopen the process, and thus produce a mediation, as intended by Latour (2005) and by Antoine Hennion.

ANT is very likely the sole approach to practices, which, by recovering the Saussurean-semiotic relational ontology (Mol, 2010, p. 257) and by extending it “ruthless[ly]” to all materials (Law, 1999, p. 4), has been actually able to grasp the “new kind of positivity”, connected to *virtuality*. However, ANT, not so differently from other approaches to practices, has been able to address such kind of *virtual* positivity more as a programmatic statement, than as an actual methodological framework.

Latour seems to be the only exception, having practiced and developed ANT as an actual methodological endeavor — both in terms of data gathering methodology and of descriptive–analytical methodology, the latter being what concerns us here. Indeed, he is the only ANT scholar that has been, along its entire trajectory, interested in developing an *infralanguage* in order to be able to describe relations. *Script* and the various correlated descriptive–analytical tools are part of this *infralanguage*.

Before Latour, structuralism has worked in a similar way by devising descriptive–analytical tools (Descola, 2016) able to describe relations in order to address the *virtual* positivity.

9 Virtuality: Structures in Practice

Therefore, other approaches to practices, by missing *virtuality* as existing and thus missing the “new kind of positivity”, miss also the methodological relevance of structuralism and postSTRUCTURALISM.⁷ They rely on a caricatural version of structuralism, as the one proposed by Andreas Reckwitz (2002), who reduces it to some of Levi-Strauss’ claims, rather than looking at structuralists’ and postSTRUCTURALISTS’ actual practices — quite contradictory for someone that tries to give relevance to practices. By doing so approaches to practices see structures only as overarching systems residing in minds, imposing themselves on individuals, i.e. as “social whole [having preeminence] over its individual parts (i.e. its constituent actors, human subjects)” (Giddens, 1984, p. 1) or as, for sociology of consumption, “cultural structures outside the reach of consumers” (Halkier & Jensen, 2011, p. 102).

7. I distinguish here between postSTRUCTURALISM, which is a way to delve into structuralism in order to escape some of its earlier contradictions by radicalizing its tenets, and POST-structuralism, which is a reflection that comes after structuralism, somehow revising some of its tenets, but in the end fleeing structuralism.

Structuralists scholars — which practice is actually much closer to what Reckwitz (2002) defines “cultural textualism”, rather than what he defines “cultural mentalism”, identified by him with structuralism — addressed, however, also structures that are not necessarily general and overarching, but local and situated, which pertain only to specific texts or configurations of actions, activities, symbols, practices, etc.

For instance, as for visual configurations, French linguist Emile Benveniste (1969) denied that there could be a visual language, intended as “visual *langue*”. He, however, acknowledged that each painting can be considered as having its own “*langue*”, its own structure, its own system of relations, constituted by differences among shapes and colours, which would constitute what I call a *virtuality*.⁸

Structuralists scholars also questioned and problematized a rigid separation between structure (language, *langue*) and agency (speaking, *parole*). Among others, Benveniste (2014, p. 141) — still him —, by introducing the notion of “enunciation”, has been able to give relevance to the “individual act of use”, or of appropriation, through which language [*langue*] is “enacted”. Algirdas J. Greimas & Joseph Courtés (1982, p. 131, italic is mine), have redefined Benveniste’s enunciation as “the domain of mediation that guarantees the process by which language *virtualities* become discourse utterances.”

Unfortunately, practice scholars have very little considered such “domain of mediation”, except for Michel de Certeau.⁹ He has explicitly “adopt[ed] the point of view of enunciation”, defined as “a realization of the linguistic system through a speech act that actualizes some of its potential” (de Certeau, 1984, p. xiii).

De Certeau has used enunciation in order to account for most disparate practices, not only those related to language, as a general overarching structure. Among these practices, he has considered also those related to artefacts, for instance, when discussing “pedestrian enunciations”¹⁰:

[...] a spatial order organizes an ensemble of possibilities (e.g., by a place in which one can move) and interdictions (e.g., by a wall that prevents one from going further), then the walker actualizes some of these possibilities. In that way, he makes them exist as well as emerge. But he also moves them about and he invents others, since the crossing, drifting away, or improvisation of walking privilege, transform or abandon spatial elements. Thus, Charlie Chaplin multiplies the possibilities of his cane: he does other things with the same thing and he goes beyond the limits that the determinants of the object set on its utilization. [...] the walker [...] on the one hand [...] actualizes only a few of the possibilities fixed by the constructed order (he [sic] goes only here and not there), on the other he increases the number of possibilities (for example, by creating shortcuts and detours) and prohibitions (for example, he forbids himself to take paths generally considered accessible or even obligatory). He [sic] thus makes a selection (de Certeau 1984, p. 98).

As we can see, when a structuralist legacy is present, as in de Certeau, then *virtuality* as real becomes relevant. Indeed, despite de Certeau made different terminological choices from the ones here proposed — “possibility” instead of “*virtuality*”; “selection” instead of “extraction” — he basically refers to the same kind of dynamics I refer to, as indicated by the fact that he underlines that within practices “possibilities” are made “to exist and emerge”, and that there are “possibilities” and “prohibitions” — *allowances* and *prescriptions*, in Akrich and Latour’s (1992) terms.

By reading this excerpt, we could say that I am just reintroducing de Certeau’s take on practices in the present reflection, which has tended to forget his contribution. However, my intention is not so much reintroducing an approach, but rather providing it with descriptive–analytical tools, thus enabling the practice scholar to account in detail for the passage between *dispositions* and *unfoldings*. As already announced, these tools are taken by Akrich’s and Latour’s methodological proposal about *script* and *de-scripton*, which has been in turn elaborated by borrowing tools developed within the structural semiotics proposed by Greimas.

8. Such lead has been key for semioticians of the Greimassian approach in order to study images and objects.

9. Latour (see, among others, 2013 [2012]) has worked a lot on enunciation too, but in a slightly different way.

10. In the English translation, the paragraph is called “Pedestrian Speech Acts”.

These tools are here used to especially account for the role of artefacts within practices, by assuming that each artefact possesses a specific structure, which constitutes its *virtuality* — as suggested by Benveniste (1969). Contrary to what Orlikowski (2000) would say, these structures are describable–analyzable. However, I assume that these structures are describable–analyzable only from their *actualizations* within practices — as language [*langue*] is only describable from speech [*parole*].

10 Missing Artefacts

The relevance of the tension *disposition-unfoldings* for studying practices clearly emerges when trying to account for artefacts' contribution to practices.

Notwithstanding all the efforts carried out by approaches to practices in order to take artefacts into account, as for accounting for artefacts — i.e. describing-analyzing in detail their contribution to practices — we are still in the situation Latour pointed out thirty years ago:

[...] sociologists still feel estranged when they fall upon the bizarre associations of humans with nonhumans. Part of their uneasiness has to do with the technicalities of complex objects and [part of it] with the absence of a convenient vocabulary allowing them to move freely from studying associations of human to associations of nonhumans (Latour [Johnson], 1988, p. 298).

As a consequence of such estrangement and of such lack of descriptive-analytical methodology — the “vocabulary” —, in approaches to practices artefacts are often tackled through interviews to users (see, for instance, Magaudda, 2011), or they are scantily described using the words of the designers, as it happens, for instance, in Truninger (2011). The latter research is not based only on interviews, but also on observations of actual interactions with *Bimby*. Nevertheless, actions considered are only those of human ones, so that the artefact is never described in detail. For instance, one of the users complained about the complexity of *Bimby*'s interface — “That really looks like the cockpit of a plane!!” (Truninger, 2011, p. 50) —, however no description of such interface is provided, and thus there is no account of how the artefact could have *disposed* such reaction. Also, the pictures of the artefact present in the article never really focus on the interface, they just provide a general overview of the artefact. The only detail shown in pictures is an action of a user (Truninger, 2011, Figure 3, p. 51).

As we see, such lack of a descriptive–analytical methodology results in a bias toward humans, thus instantiating an epistemological–ontological positioning through method.

Something very similar takes place in the seminal article by Shove and Pantzar (2005) about Nordic Walking. The sticks, the main artefact — or “material” — related to the practice of Nordic Walking, and around which the entire practice turns, are described toward the mid of the article, when the various components of the practice are listed. Shove and Pantzar (2005, p. 54) acknowledge that sticks have a “straight handle and a strap that goes around the hand,” that “[d]ifferent types of tip are available to suit different ground conditions” and that “styling was influenced by the ski sticks” with bright colors, but that “more urban models in black, silver and yellow have since become popular.” They do not say much else, nor really connect these features of the artefact to the practice. Such move could be somehow justified by the fact that Shove and Pantzar (2005, p. 45) explicitly say that they do not focus “on the objects in question [...], but on the practice of which they are a part.” They deem that therefore have “no option but to consider the dynamic, yet also interdependent, relation between practitioners and providers” and thus, no option but to conduct interviews with them. However, they consider such relation in order to shed light on the “the dynamic relationship between sticks and the image and performance of the practices they sustain” (Shove & Pantzar, 2005, p. 48). Unless you assume that artefacts cannot be taken into consideration at all, the reasoning they propose does not hold: they want to analyze a practice, that according to their definition comprises artefacts; notwithstanding that, because it is a practice, they feel the obligation to interview practitioners and providers, leaving artefacts completely aside, even though, eventually, they want to focus on the relation between artefacts and meanings, neither of them addressed directly.

Somehow, an approach to practice becomes an excuse to reiterate a bias toward humans. Through their interviews, a focus group, the analysis of some newspaper articles and some observations, they claim

to show how the practice of Nordic Walking got diffused and established mainly thanks to the fact that the use of sticks for walking had been shifted from an image related to “infirmity” and “frailty” to one related to “health” and “fitness”. Assuming that this were the main shift, in order to account for it, they should have described-analyzed the ways, in which one or more specific features of the “material” *dispose* an association with an “image”. For instance, among many features, the height of the stick is relevant to *dispose* a certain posture. The higher Nordic Walking sticks *dispose* a straight and open — with the open arms — posture, whereas crutches or walking sticks used by elderlies — usually shorter —, *dispose* a completely different posture — bent and wrapped inward. This is so because in one case sticks accompany the movements of the body, in the other, they need to support the weight of the body in order to give stability to it. Shift in posture, disposed by artefacts, is relevant for the “image” because it is seen by bystanders and can be depicted in media that want to promote the practice. Moreover, posture is also felt by practitioners, who can appreciate right away the difference between, say, Nordic walking poles and crutches, especially in relation to breathing. In my terms, then, the height of the stick *disposes* among others, a certain posture, which, if *unfolded*, *disposes*, among others, a certain image, which, if *unfolded*, *disposes*, among others, a certain interest for the practice, which, if *unfolded*...

The issue, then, is to take artefacts into account and account for their role. However, not by taking into account artefacts themselves, but the relations they enjoy — “height” is clearly a relational property. These relations take place around and within artefacts. We should then also pay attention to “the network within” (Parolin & Mattozzi, 2014), i.e. we should follow Latour’s (2005, p. 233) suggestion: “when faced with an object, attend first to the associations [relations] out of which it’s made and only later look at how it has renewed the repertoire of social ties.”

I deem that pursuing other ways of taking artefacts into account leads inevitably to some contradiction and eventually in not being able to account for artefacts. Let’s take the example of Orlikowski (2000). For her, attention must be paid to “human actions” and only from there to artefacts, which do not have existence, beyond the one provided by human actions. Despite such supposed inexistence, she has anyway the need to describe them as autonomous from human actions. She writes (Orlikowski, 2000, p. 413):

[a.] Physically, *Notes* consists of both “clients” — the software installed on users’ personal computers, which mediates interaction with the *Notes* system — and “servers” — the software installed on network computers which facilitates communication among the users and supports their access to shared databases maintained locally and remotely within the *Notes* system [...]

[b.] the Notes technology has a highly distributed architecture which supports collaboration among a variety of distributed users [...]

[c.] it allows users to customize their interface with the technology and provides them with the tools to develop their own applications within the Notes system.

As we can see, she not only describes them “physically”, but she is also led to acknowledge that artefacts *dispose* — it “supports ...;” it “allows ...” Notwithstanding all that, Orlikowski is not willing to account for these features.

The same kind of contradiction is present in Nicolini, Mengis and Swan (2011), who adopt a framework based on Orlikowski’s (2000) mentioned article, as well on Susan Leigh Star approach to artefacts. Therefore, Nicolini, Mengis and Swan (2011, p. 612) state that “the work performed by objects becomes apparent only when we focus on how [humans interact among them and with the artefacts] in practice” and that “the material dimension of objects [...] derives from action, not from a prefabricated stuff or ‘thing’-ness.” Nevertheless, not only, like in Orlikowski’s case, they need to describe artefacts before they describe human actions with them — for instance they need to acknowledge that the arrangement of a room in “several long rows of desks” hamper communication also because the group they are observing is handling a “small object” —, but they even talk about the “inherent nature” of objects (Nicolini, Mengis & Swan, 2011, p. 612).

As mentioned before, the way out of these contradictions is not, however, to simply state that physical objects have a social reality or to admit that their “inherent nature” is directly socially relevant. The

way out is instead to consider relations — associations (Latour, 2005), “of any kind” (Akrich, 1990, p. 84, my translation). Addressing relations, is not only epistemologically–ontologically convenient, since it allows escaping the dualist traps mentioned before, but also empirically productive, given that it provides actual empirical evidences to describe–analyze and compare. However, these empirical evidences are, as noted earlier, not provided by entities, but of another kind: they are provided by differences¹¹ (Maniglier, 2012, p. 12), given that difference can be considered the basic relation. What are, indeed, if not differences, the relations mentioned by Nicolini, Mengis and Swan (2011), when saying that the room is characterized by “several long rows of desks” and that the scientists they observe need to handle a “small object”: what is a row, if not something that differs from a column, on the base of a difference between horizontality and verticality? How can something be “long” if not compared with something “short”? How can be something “small” if it does not differ from something “big”?

Structures for structuralism, are, first of all, these intertwining of differences, which cannot but be *virtual*. I think the same can be said for networks, as Latour (2005) describes them.

11 Virtualizing the Script

Latour (1988) did not stop noticing the methodological difficulties social sciences have in tackling artifacts. As we already mentioned, he, together with Akrich, developed a descriptive-analytical methodology – the *vocabulary* he mentioned, i.e. his *infralanguage* – enabling scholars to account for artefacts in practices, by carrying out *de-description*.

However, not only such methodological proposal has been very little taken into consideration, but it has often not even been acknowledged as such. For instance, Shove, Pantzar and Watson (2012, p. 14, italic in the original), considers ANT unable to tackle “ordinary questions about what [...] cyborg/hybrid entities are actually *doing*”, neglecting any methodological relevance of it. Other approaches to practices, more sympathetic to ANT, as the one proposed in Nicolini, Mengis and Swan (2011) or in Gherardi (2019), or inscribing themselves within an ANT framework like, for instance, Bruni (2005), give also way to the same neglect.

As already mentioned, I deem that such neglect is (also) related to the neglect of *virtuality* as existing. Indeed, if *virtuality* and its mediational relevance are neglected, there is no need to describe it — social scientists gather only *actualizations* in the form of (human) words or movements. Consequently, there is not even the awareness of the need and of the relevance of a “vocabulary” to describe *virtuality*. Therefore, Latour (2005)’s insistence on method of description and the consequent relevance of *infralanguage* for such endeavor cannot but remain unnoticed and unacknowledged.

Such neglect of the methodological relevance of ANT has had its toll especially for the notion of *script* and *de-description*, which have been forgotten or explicitly rejected also by ANT scholars (e.g., Mares, 2014). The ground on which *script* has been rejected is that it has been perceived as addressing solely normative aspects of artefacts.¹² Namely, *script* has been mainly seen as *prescriptions* inscribed by designers, embodied by artefacts, and, then, resisted or accepted by users. Though favored by Akrich (2012)’s interpretation of *script*, such critique completely overlooks a possible more faceted conception of *script*, favored instead by Latour (2000).

Such exclusively normative reading of *script*, does not seem to take into account that the *script* also provides *allowances* or affordances (Akrich & Latour, 1992; Latour, 1992), but it also neglects any autonomy of artefacts, making them the intermediary carriers of designers’ intentions — thus, contradicting ANT’s conception of mediation. Such reading is only possible if the relevance of *virtuality* — and thus of mediation — is neglected and thus *script* is considered only within a sequence of successive actualizations — which, again, would contradict ANT’s tenets.

Indeed, if *virtuality* is actually considered, though designers’ designs can find an *actualization* in the designed artefact, the designed artefact gives way to a new *virtuality*, which, in turn, not only can be *actualized* in various ways once used, but exceeds designers’ designs, by providing *allowances*, as well as *prescriptions*, not necessarily planned by the designers, emerging in the situation. Starck did designed *JS*

11. Which is what Schatzki (2002) fiercely rejects.

12. I must thank Attila Bruni for a clarifying conversation on the topic.

as high in order to be conspicuous, thus able to “elicit conversations” (Julier, 2013, p. 90). However, he, very likely, did not think that such height could dispose an *actualization* of *JS* in the sink, which, in the end, neglects *JS* conspicuousness.

I will then consider *script* in all its facets, as a way to address *virtuality* — “the world inscribed in the object” (Akrich, 1992, p. 209) — and *de-description* as a way to describe such *virtuality*, and form its *actualization* — “the world described by its displacement” (Akrich, 1992, p. 209). If, we consider a practice as a cycle of *virtualities* and *actualizations*, then *de-description* becomes the main procedure through which to account for practices, at least when artefacts are present.

12 Back in the Sink

All along the article, I have referred to the case of *JS* used in the sink in order to exemplify various issues I was addressing. I want to conclude the article by returning to the case and, by using Latour’s *infralanguage*, by providing a *re-de-description* of it, which draws together what said before. For certain aspects, it can result in a repetition — as many conclusions do — but I also hope it will provide — as many conclusions do — an overview of the issues tackled, albeit in an empirical way. Thus, even though I am going to tell basically the same story I told at the beginning, I will assume a different point of view.

Among the various differences emerged from the way *JS* has been *unfolded*, verticality(/horizontality) and height (high/low), are the most relevant, given that they *dispose* most of the interactions that took place in the described situations.

JS does (contribute to) squeeze oranges. It is able — almost as any other squeezer —, given that the bulb — when pressed against a citrus through an horizontal rotation — is able to break the wedges’ envelopes keeping the juice, in order to make it flow along the rest of its body. However, what distinguishes *JS* from other squeezer is not so much what it *does*, but what it *makes do*. Among the various things it *makes do*, the fact that it *makes* the juice’s flow visible and, through it, *allows* a bystander — not so much the person who is squeezing — to see and enjoy the vision of the juice is key — at least for our case. As we noticed, *JS* not only *makes* the juice visible, but it *allows* the convergence of various flows in one point, from which the juice streams down in the glass, becoming even more visible.

It was for this reason that the husband was fascinated by it and decided to buy it. Such visibility of the juice is *disposed* by both the height — disposed, in turn, also by the “three slender legs” (Julier, 2013, p. 88) — and by its verticality, given that *JS* does not display any horizontal element, which could interrupt the flow of the juice.

Purchased by the husband for the way it worked, once in the kitchen, *JS* could not be *unfolded*, but for squeezing, on the workbench which, in that kitchen, *disposes* the surface for transforming food — the peninsula. For the way it has been *unfolded* — especially its height — in everyday kitchen practices, such peninsula *allows* the average user — and for sure the woman in the pictures — to exert effort without bending. However, once coupled with *JS*’ height, the configuration of *JS*+peninsula, prescribed the use of an uncomfortable posture, which, in turn, prescribed the exclusion of the woman’s weight, and thus prescribed more effort by the woman’s arm..

On the peninsula, *JS* is, however, extremely visible and somehow such positioning would *allow* bystanders sitting at the dining table to enjoy its spectacle.

Height and verticality are *unfolded* also in the sink, where *JS* allows water to flow along its body like the juice, thus *making* water remove all the left overs, without any stopping.

In the sink, which offers a lower surface, height does not *prescribe* an uncomfortable posture, nor the exclusion of the woman’s weight, therefore it *allows* a comfortable squeezing, besides a comfortable cleaning. Actually, the configuration *JS*+sink *allows* to closely connect the two, and thus it allows the co-location for the integration of two practices (Shove, Pantzar & Watson, 2012, Ch. 5). Moreover, in the sink, spillovers are not such a nuisance as on the peninsula and they can be removed, together with the removal of leftovers from the squeezers, thus strengthening even more the integration between squeezing and cleaning and thus making the practice of squeezing oranges with *JS* quite stable.

The sink, through its lower surface and its high walls surrounding *JS*, *prescribes* the latter and the juice to be basically invisible.

In order to conclude I want to notice three things:

- what has taken place in that kitchen — i.e. the invention of the sink-squeezer — is the outcome of an action that is situated and distributed among the woman, *JS* and the kitchen furniture. Despite such distribution, it is possible to describe in what way each actor has contributed to the action.
- each *disposition*, be it provided by the configuration of the artefact, or by the configuration of more artefacts or by the very practice is first of all a network of differences: keeping/fleeing (the juice), flowing/dripping, smooth/grooved, horizontal/vertical, scattered/converging, high/low, allowance/prescriptions, doing/making do, visibility/invisibility, etc.
- by looking at how these configurations change and at how one *disposes* the other, we can account for various “social” relations. Other sociological approaches to consumption, would have probably focused more on issues such as conspicuous consumption, the relevance of a certain cultural and economic capital to afford and appreciate such squeezer, as well as gender issues related to husband-wife relations and the division of housework. By taking into account artefacts as actors contributing to the *unfolding* of a practice, these issues are not neglected. Rather they find an actual grounding, which can provide insights about how such issues are dealt with in everyday life. Indeed, what we saw is that through a negotiation with the artefact, a good that dispose a very patent conspicuous consumption happened to become, in relation with a certain setting, a convenient tool that has to do very little with conspicuousness. At the same time, such dynamics is related to the specific way, in which the woman in the picture has appropriated the tool, by connecting it to cleaning practices, thus renegotiating her husband wishes, with her exigencies.

13 Conclusions: Structures All the Way Down (and Up, and In Front, and On the Back)

In a way, Shove, Pantzar and Watson (2012, p. 14, italic is mine) are not wrong in saying that ANT is unable to tackle what “entities are *actually* doing.” Indeed, according to what I argued in the present paper, ANT is unable to fully tackle what “entities are *actually* doing,” without previously describing what entities are *virtually* doing.

What entities are *virtually* doing is, however, something that completely escapes Shove, Pantzar and Watson’s approach, as well as most of the approaches to practices, thus making them unable to account for the contribution of artefacts to practices.

The aim of the present paper has been to not only provide a way to account for what artefacts are *actually* and *virtually* doing, being the two things strictly interconnected, but also to outline the epistemological conditions for making such endeavor relevant. I did that also by recovering historical approaches that already thematized *virtuality*, as de Certeau did — though not using the term “*virtuality*”.

It is very likely no coincidence that Latour and de Certeau are basically the only practice scholars able to consider *virtuality* as real. They both directly experienced, and contributed to, the passage from structuralism to postSTRUCTURALISM and, more specifically, they both attended Greimas’ structural semiotic seminar in Paris in the 1970s and 1980s.¹³ From such structural semiotics, they have both drawn notions, categories and models, all of which embed *virtuality*.

Given that practices have often been seen as a way to overcome structuralism, such reference to structuralism could sound strange. Nevertheless, practices have first emerged, in Bourdieu’s, Giddens’ and de Certeau’s works, as a way to problematize structuralism. Only later structuralism has been seen as something radically different from the study of practices.

However, one thing is to refer to structuralist general notions, trying to find other notions, categories and models able to intermediate between structure — seen as overarching and general — and agency, as Bourdieu, Giddens and, up to a certain extent, de Certeau did. Another thing is to delve into the

13. De Certeau “at the Greimas’ seminar [...] meets linguist Jean-Claude Coquet [...], who] is very interested in Benveniste’s linguistics of enunciation” (Dosse 2007, p. 298, my translation). Also Latour, whose relation with Greimassian semiotics is broader and more explicit, develops his enunciational framework after meeting semiologist Manar Hammad at Greimas’ seminar (Latour, 1988). I must thank Francesco Galofaro and especially Lucia Amara for having pointed the relation between de Certeau and Greimas to me.

structuralist methodology, extending it and therefore redistributing both structure and agency, as ANT has done.

In the first case the dichotomy structure/agency is maintained, though complexified; in the second is overcome. By overcoming it, ANT has given way to what we could call a “distributed structuralism”, which I deem is the adequate framework for the study of practices.

References

- Akrich, M. (1992). The De-Description of Technical Objects. In W. E. Bijker, & J. Law (Eds.), *Shaping Technology/Building Society* (pp. 205–224). Cambridge, Mass.: MIT Press.
- Akrich, M., & Bruno L. (1992). A Summary of Convenient Vocabulary for the Semiotics of Human and Nonhuman Assemblies. In W.E. Bijker & J. Law (Eds.) *Shaping Technology/Building Society* (pp. 259–264). Cambridge, Mass.: MIT Press.
- Benveniste, É. (1969). Sémiologie de la Langue. *Semiotica*, 1(1), 1–12. <https://doi.org/10.1515/semi.1969.1.1.1>
- Benveniste, É. (2014). The Formal Apparatus of Enunciation. In J. Angermuller, D. Maingueneau, & R. Wodak (Eds.), *The Discourse Studies Reader* (pp. 140–145). Amsterdam: John Benjamins Publishing Company. (Original work published 1970)
- Brix, A. (2008). Solid Knowledge: Notes on the Nature of Knowledge Embedded in Designed Artefacts. *Artifact*, 2(1), 36–40. <https://doi.org/10.1080/17493460802300933>
- Bruni, A. (2005). Shadowing Software and Clinical Records: On the Ethnography of Non-Humans and Heterogeneous Contexts. *Organization*, 12(3), 357–378. <https://doi.org/10.1177/1350508405051272>
- Certeau, M. de. (1984). *The Practice of Everyday Life*. Berkeley: University of California Press. (Original work published 1980)
- Deleuze, G. (1995). *Difference and Repetition*. New York: Columbia University Press. (Original work published 1968)
- Descola, P. (2016). Transformation Transformed. *HAU: Journal of Ethnographic Theory*, 6(3), 33–44. <https://doi.org/10.14318/hau6.3.005>
- Dosse, F. (2007). *Michel de Certeau. Le marcheur blessé*. Paris: La Découverte.
- du Gay, P., Hall, S., Janes, L., Mackey, H., & Negus, K. (1997). *Doing Cultural Studies: The Story of the Sony Walkman*. London: SAGE.
- Gherardi, S. (2019). *How to Conduct a Practice-Based Study: Problems and Method* (2nd ed.). London: Edward Elgar.
- Giddens, A. (1979). *Central Problems in Social Theory: Action, Structure, and Contradiction in Social Analysis*. Berkeley: University of California Press.
- Giddens, A. (1986). *The Constitution of Society: Outline of the Theory of Structuration*. Cambridge: Blackwell.
- Gonzalez, L. (2007). Juicy Salif as a Cultish Totem. In B. Townley, & N. Beech (Eds.), *Managing Creativity: Exploring the Paradox* (pp. 287–309). Cambridge: Cambridge University Press.
- Greimas, A.J., & Courtés, J. (1982). *Semiotics and Language: An Analytical Dictionary*. Indiana University Press. (Original work published 1979)

- Halkier, B., & Jensen, I. (2011). Methodological Challenges in Using Practice Theory in Consumption Research. Examples from a Study on Handling Nutritional Contestations of Food Consumption. *Journal of Consumer Culture*, 11(1), 101–123. <https://doi.org/10.1177/1469540510391365>
- Jarzabkowski, P., & Trevor, P. (2013). Sociomateriality Is “the New Black”: Accomplishing Repurposing, Reinscripting and Repairing in Context. *M@n@gement*, 16(5), 579–592. <https://doi.org/10.3917/mana.165.0579>
- Julier, G. (2013). *The Culture of Design*. London: SAGE.
- Khaslavsky, J., & Shedroff, N. (1999). Understanding the Seductive Experience. *Communications of the ACM*, 42, 45–49. <https://doi.org/10.1145/301353.301407>
- Koskinen, I. (2005). Semiotic Neighborhoods. *Design Issues*, 21(2), 13–27. <https://doi.org/10.1162/0747936053630142>
- Law, J. (1999). After ANT: Complexity, Naming and Topology, *The Sociological Review*, 47(1), 1–14. <https://doi.org/10.1111/j.1467-954X.1999.tb03479.x>
- Latour, B. (Johnson, J.) (1988). Mixing Humans and Nonhumans Together: The Sociology of Door-Closer. *Social Problems*, 35(3), 298–310. <https://doi.org/10.2307/800624>
- Latour, B. (1992). Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts. In W.E. Bijker, & J. Law (Eds.), *Shaping Technology/Building Society* (pp. 225–258). Cambridge, MA: MIT Press.
- Latour, B. (2000). The Berlin Key or How to Do Words with Things. In P. Graves Brown (Ed.), *Matter, Materiality and Modern Culture* (pp. 10–21). London: Routledge.
- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- Latour, B. (2013). *An Inquiry into Modes of Existence: An Anthropology of the Moderns*. Cambridge, Mass.: Harvard University Press. (Original work published 2012)
- Lloyd, P., & Snelders D. (2003). What Was Philippe Starck Thinking of? *Design Studies*, 24(3), 237–253. [https://doi.org/10.1016/S0142-694X\(02\)00054-6](https://doi.org/10.1016/S0142-694X(02)00054-6)
- Magaudda, P. (2011). When Materiality “Bites Back”: Digital Music Consumption Practices in the Age of Dematerialization. *Journal of Consumer Culture*, 11(1), 15–36. <https://doi.org/10.1177/1469540510390499>
- Magistà, A. (2009). Starck? No Grazie. *Casa & Design*, March 26 (Retrieved from <https://design.repubblica.it/2009/03/26/starck-no-grazie> Last visited on 22 February 2019)
- Maniglier, P. (2006). *La vie énigmatique des signes: Saussure et la naissance du structuralisme*. Paris: Max Scheer.
- Marenko, B. (2018). The Un-Designability of the Virtual. Design from Problem-Solving to Problem-Finding. In G. Sade, G. Coombs, & A. McNamara (Eds.), *UnDesign: Critical Practices at the Intersection of Art and Design*. London: Routledge.
- Marres, N. (2014). The Environmental Teapot and Other Loaded Household Objects: Reconnecting the Politics of Technology, Issues and Things. In P. Harvey, E.C. Casella, G. Evans, H. Knox, C. McLean, E.B. Silva, & K. Woodward (Eds.), *Objects and Materials: A Routledge Companion* (pp. 260–271). London: Routledge.
- Mattozzi, A. (2010). The Semiotic Analysis of Objects: A Model. In S. Vihma (Ed.), *Design Semiotics in Use* (pp. 40–69). Helsinki: Aalto University Press.

- Mol, A. (2010). Actor-Network Theory: Sensitive Terms and Enduring Tensions. *Kölner Zeitschrift Für Soziologie Und Sozialpsychologie. Sonderheft, 50*. (Retrieved from <http://dare.uva.nl/search?identificer=75bbc661-0a89-475a-9eef-8c8c5a2e9904> Last visited on 10 February 2019)
- Nicolini, D., Mengis, J., & Swan, J. (2012). Understanding the Role of Objects in Cross-Disciplinary Collaboration. *Organization Science, 23*(3), 612–629. <https://doi.org/10.1287/orsc.1110.0664>
- Norman, D. (2007). *Emotional Design: Why We Love (or Hate) Everyday Things*. London: Hachette UK.
- Parolin, L.L., & Mattozzi, A. (2014). «Come Meglio Credi». Conoscenza Tacita e Innovazione nel Distretto del Legno-Arredo della Brianza. *Polis, 25*(3). <https://doi.org/10.1424/78338>
- Orlikowski, W.J. (2000). Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations. *Organization Science, 11*(4), 404–428. <https://doi.org/10.1287/orsc.11.4.404.14600>
- Russo, B. & De Moraes, A. (2003). The Lack of Usability in Design Icons: An Affective Case Study about *Juicy Salif*. In B. Hanington, & J. Forlizzi (Eds.), *Proceedings of the DPP/03* (pp. 146–147). New York: ACM Press. <https://doi.org/10.1145/782896.782936>
- de Saussure F. (1959). *Course in General Linguistics*. New York: Philosophical Library. (Original work published 1916)
- Schäfer, H. (2017). Relationality and Heterogeneity: Transitive Methodology in Practice Theory and Actor-Network Theory. In M. Jonas, B. Littig, & A. Wroblewski (Eds.), *Methodological Reflections on Practice Oriented Theories* (pp. 35–46). https://doi.org/10.1007/978-3-319-52897-7_3
- Schatzki, T.R. (2002). *The Site of the Social: A Philosophical Account of the Constitution of Social Life and Change*. University Park, Pa: The Pennsylvania State University Press.
- Sewell, W.H. (1992). A Theory of Structure: Duality, Agency, and Transformation. *American Journal of Sociology, 98*(1), 1–29. <https://doi.org/10.1086/229967>
- Shove, E., & Pantzar, M. (2005). Consumers, Producers and Practices: Understanding the Invention and Reinvention of Nordic Walking. *Journal of Consumer Culture, 5*(1), 43–64. <https://doi.org/10.1177/1469540505049846>
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. Los Angeles: SAGE.
- Shove, E., Watson, M., Hand, M., & Ingram J. (2007). *The Design of Everyday Life*. New York, NY: Berg.
- Silverstone, R. & Haddon, L. (1996). Design and the Domestication of Information and Communication Technologies: Technical Change and Everyday Life. In R. Mansell & R. Silverstone (Eds.), *Communication by Design: The Politics of Information and Communication Technologies* (pp. 44–74). Oxford: Oxford University Press.
- Silverstone, R., Hirsch, E., & Morley, D. (1992). Information and Communication Technologies and the Moral Economy of the Household. In R. Silverstone, & E. Hirsch (Eds.), *Consuming Technologies: Media and Information in Domestic Spaces* (pp. 115–131). London: Routledge.
- Truninger, M. (2011). Cooking with Bimby in a Moment of Recruitment: Exploring Conventions and Practice Perspectives. *Journal of Consumer Culture, 11*(1), 37–59. <https://doi.org/10.1177/1469540510391221>
- Warde, A. (2005). Consumption and Theories of Practice. *Journal of Consumer Culture, 5*(2), 131–153. <https://doi.org/10.1177/1469540505053090>

- Warde, A. (2014). After Taste: Culture, Consumption and Theories of Practice. *Journal of Consumer Culture*, 14(3), 279–303. <https://doi.org/10.1177/1469540514547828>
- Whittington, R. (1992). Putting Giddens into Action: Social Systems and Managerial Agency. *Journal of Management Studies*, 29(6), 693–712. <https://doi.org/10.1111/j.1467-6486.1992.tb00685.x>
- Woolgar, S. (1991). Configuring the User: The Case of Usability Trials. In J. Law (Ed.), *Sociology of Monsters. Essays on Power Technology and Domination* (pp. 58–102). London: Routledge.

Alvise Mattozzi: Free University of Bozen-Bolzano (Italy)

📄 <https://orcid.org/0000-0002-7917-3099>

✉ amattozzi@unibz.it; 🌐 <https://www.unibz.it/it/faculties/design-art/academic-staff/person/11597-alvise-mattozzi>

Alvise Mattozzi is assistant professor in Sociology of Culture and Communication at the Faculty of Design and Art of the Free University of Bozen-Bolzano. He works at the intersection between Science and Technology Studies and Design Studies, using Actor-Network Theory as general framework and semiotics as descriptive–analytical methodology. His research has mainly a methodological character, investigating how to account for the mediation of artefacts. He has carried out also more specific researches related to the Italian raw milk alternative food network (together with Tiziana Piccioni) and to design practices (together with Laura Lucia Parolin). At present, he is working, on the one hand, on the recovery and rearticulation of “domestication theory”, on the other, on the role of design in interdisciplinary practices (together with Andreas Metzner-Szigeth and Roberta Raffaetà). Together with Kris Krois, he founded the Master in Eco-Social Design at the Free University of Bozen-Bolzano.

Learning and Shaping Expert Knowledges: The Case of Precision Medicine

Stefano Crabu*

Submitted: April 29, 2019 – Accepted: December 11, 2019 – Published: December 31, 2019

Abstract

The aim of this article — drawing on broad ethnographic research within two major Italian organisations operating in cancer care and research — is to enlarge practice-based studies, and in particular the practice-based approach to learning. To do so, a dialogue with social studies of biomedical science and health professions will be open, thus contributing to the field of sociology of scientific practice, which often neglected to explore how practitioners locate themselves in a position to be able to act as competent agents. Accordingly, we shall ask: what kind of knowledge is enacted to create a context of work in which “precision medicine” emerges? Since research and care practices as collective activities are not merely predefined by formal education and training, how practitioners learn to work together, and to shape knowledge actionable within a precision medicine frame? In addressing these research questions, the article shows how a practice-based approach to learning might offers novel modes of understanding biomedicine and to think somewhat differently about how expert knowledges are produced and shared among diverse settings and professionals.

Keywords: Practice Theory; Biomedicine; Healthcare Professions; Learning in Practice; Ethnography.

1 Introductory Remarks

A science is nothing more than, and nothing less than, the activities of its practitioners.
(Garfinkel & Liberman, 2007, p. 4).

The aim of this article is to enlarge practice-based studies, and in particular the practice-based approach to learning. To do so, a dialogue with social studies of post-genomic biomedicine and health professions will be open, thus contributing to the field of sociology of scientific practice which often neglected to study how practitioners locate themselves in a position to be able to act as competent agents (Alkemeyer & Buschmann, 2016).

* Politecnico di Milano (Italy); ✉ stefano.crabu@polimi.it;  <https://orcid.org/0000-0002-0180-716X>

For the scope of this paper, it is worth highlighting that a growing body of research inspired by a practice-based approach to learning is revolving its attention to mundane activities (Alkemeyer & Buschmann, 2016). However, they rarely explore upon how scientific practices take place in the flow of practitioners' experience, where learning and knowing are not separate activities, but rather co-present with innovation, negotiation and conflict over specific purposes to be pursued in work practices. Thus, this study attempts to developing a novel modes of understanding biomedicine and thinking somewhat differently about how expert knowledges¹ are produced, learned and shared among diverse settings and professionals. In particular, the generation of biomedical knowledges will be framed as *act of knowing* and *learning in practices* (Gherardi, 2009), emerging via the entanglement of discourses, artefact, tools and biological entities. This perspective is particularly useful in enabling the understanding of such peculiar trajectories in becoming a competent member in a culture of biomedical practices.

The focus on learning in biomedicine allows for disclosure of situated practices in manufacturing expert knowledges as a practical performance, avoiding the reduction of learning process to a mere rational/cognitive act of mastering propositional knowledges. Indeed, within social sciences, scholars have traditionally approached the study of professions involved within the Western medical science and healthcare industry by postulating an empirical binarism: on the one hand, there are those engaged in producing expert knowledges as well as in developing medical technologies (i.e. professionals located in scientific laboratories); on the other hand, physicians and nurses who adopt these knowledges and technologies interacting with patients in the field of public health services (see Burri & Dumit, 2007; Gardner, 2017). This position outlines an analytical boundary between clinical practitioners and the research staff carrying out laboratory-based investigations in life sciences. Hence, it is assume that these communities have irreducibly different epistemological, cultural and value orientations (Hallowell et al., 2009; Morgan et al., 2011).

The foundation of this binarism resides in the hypothesis according to which medical professionalisation should be understood primarily in relation to the processes of development of the institutional health welfare systems, in their regional, cultural and biopolitical dimensions (Freidson, 1985; Abbott, 1988; Erling & Magnussen, 2011). However, this hypothesis is losing its centrality in social sciences, as well as its heuristic power, due to the radical technoscientific reconfiguration to which biomedicine has been subject in the last two decades (Clarke et al., 2010). Recent innovations in healthcare, such as DNA sequencing and genomics, are leading to a critical transformation of biomedical organisations, clinical practices and healthcare professions (Keating & Cambrosio, 2003). Among many different medical specialities, oncology has been particularly affected by genomic technologies, driving the emergence of precision medicine (also known as "personalised" medicine), which opens new clinical options for treating patients as it combines traditional drug administration evaluation factors (e.g. age, body mass index and gender) with the patient's unique genetic, environmental and behavioural profile (Ginsberg & Willard, 2013). In this respect, a growing body of research shows that post-genomic sciences are realigning the "clinical" (Foucault, 1973) and "molecular" gaze (Rose, 2007) over the human body, strengthening relationships between research laboratories and care practices (Lewis et al., 2014; Nelson et al., 2014; Cambrosio et al., 2018).

In consideration of this complex biomedical landscape, the challenge for social sciences is no longer to question ethical issues related to the possibility of manipulating and intervening at the molecular level of the living bodies. Rather, it is to explore the organisational arrangements and situated conditions surrounding the development of new tailored therapies in the context of technology-intensive biomedicine. Accordingly, we shall ask: what kind of knowledges are enacted to create a context of work in which "precision medicine" emerges? Since research and care practices as collective activities are not merely predefined by formal education and training, how practitioners learn to work together, and to shape knowledges actionable within a precision medicine frame? To provide a meaningful answer to these research questions the article is organised as follow: first, I provide a comprehensive theoretical framework that informs this paper. Then, I detail the research design, and I present the empirical material using case vignettes to illustrate how health practitioners learn to collectively act in a competent way within a thick network of relationships involving clinical settings and research laboratories. In the con-

1. I resort to the plural "knowledges" to emphasise that scientific knowledges are heterogeneous assemblages, and may be disputed, repudiated and locally negotiated. See Haraway, 1991; Clarke et al., 2003; Jasanoff, 2004.

clusion, I consider the type of research insights that the conceptual work of a practice-based approach to learning might open up in the case of contemporary biomedicine. In so doing, I discuss how the developing of expert knowledges and new medical options can re-orient the work and settings of those concerned in health settings, and how their doing implies collective expert competences that must be learnt and innovated while practising.

2 Working and Learning in Biomedical Landscapes

Although social sciences have historically developed multifaceted perspectives in addressing how innovations in policy frameworks, as well as advancements in science and technology, contribute to redefining the cultural authority of health professions, it is common to consider the medical sociologist Eliot Freidson as the foundational scholar of the research stream on medical professional bodies (see Hafferty & Castellani, 2013). One of the main influential legacies of Freidson's thought is the concept of "medical dominance" (1970). This notion has been proposed with the aim of highlighting the chance of the "medical category" to subjugate — by means of a legal authority, and cultural and symbolic resources — all the occupational profiles in the health domain, and to hegemonize the definition of the scientific contents of their activity. From this perspective, physicians have been able to develop monopolistic economic strategies in order to give shape to their own privileged labour market segments, thus increasing their benefits and their moral force, and subordinating competing occupational groups to their purposes (Collins, 1979). According to Freidson, the profession of medicine is played with a radical ambivalence: on the one hand, there are the social expectations that require caring for patients; on the other, the problem of building consensus and legitimacy both within their own professional community and in society at large. In this way, the exercise of the medical profession contemplates two distinct logics of action, that is the *colleague-dependent logic* and the *client-dependent* one (Halpern & Anspach, 1993).

Freidson's work has strongly pervaded social studies of healthcare professions, and, in particular, the well-known theory of medicalization (Conrad, 1992 & 2007). Although in principle this theoretical framework considers diverse viewpoints of professionals engaged in the medicine and healthcare field, the perspective of physicians remain the *primum movens*, thus suggesting a political tactic of domination acted by the medical category as an explanatory factor of the dynamics shaping the healthcare professions (Chamberlain, 2010).

This analysis has been questioned by social researchers involved in innovation studies, social studies of medicine and science and technology studies (S&TS), commonly interested in investigating the re-configuration of the epistemic and organisational boundaries between care and research, as well as the modalities through which biomedical work occurs in practice. Both in Europe and in North America, in debates over the production of (biomedical) knowledges and technologies of life, innovative "heuristic lenses" have been proposed to capture the mutual shaping and multidimensional entanglement between care and research (Cambrosio et al., 2018). These contributions have framed medical work as a form of "heterogeneous engineering" (Bruni, 2008), that is a distributed process, which implies forms of cooperation between various lay and expert practitioners as well as technological devices (Casper & Berg, 1995; Lock, Young & Cambrosio, 2000; Rabeharisoa & Bourret, 2009). Therefore, sociologists influenced by S&TS have strongly renewed the study of medical practice, thus overcoming individualised methodological approaches that framed social structures in terms of external variables determining the nature of the clinical acting.

Although these studies have produced extremely relevant advancements in understanding the ways in which genomic technologies and ICT are blurring the distinction between care and research professionals, the approach is partial in that health practitioners tend to be cut loose from the ways in which they learn to competently perform everyday working practices. Generally speaking, this scholarship has depicted biomedical work as highly standardised and conservative; innovation as a destabilizing, even if indispensable, process of organisational change; and learning as a peculiar dimension weakly related to everyday work and innovation. According to Brown & Duguid (1991, p. 40), "the source of the opposition perceived between working, learning and innovating lies primarily in the gulf between precepts and practices. Formal descriptions of work (e.g., 'office procedure') and of learning (e.g., 'subject matter') are abstracted from actual practice." Therefore, it is relevant to acquire a more thorough understanding

of how knowledges and medical technologies are produced in the course of everyday practices, and how practitioners learn to “perform” them as a part of everyday organising processes.

In addressing this issue, I discuss how precision medicine practitioners are engaged in learning to define knowledges about patients’ bodies in the context of precision cancer medicine. In so doing, I adopt a practice-based approach developed by Shove et al. (2012), which potentially allows seeing learning as a conceptual bridge between the process of innovating and working. In their consideration of practice theories, Shove et al. suggest focusing on *materials*, *competences* and *meanings* as a strategy to comprehend practices (2012, p. 14). A focus on materiality allows considering tangible physical things, biological bodies and technologies as integrative agents of practices. Competency encompasses techniques and skills, and the ways in which people learn them. Finally, meanings refer to expectations, aspirations and symbolic meanings. Accordingly, practices should be framed as the emerging outcome by the (in)stable assemblage between these three types of elements. In alignment with Shove et al. (2012), Alkemeyer & Buschmann (2017) recently proposed a heuristic framework to capture learning as a process of “self-(trans)formation” (p. 12) within practices, where “candidates for participation reciprocally initiate themselves as and make themselves into participants by equipping one another, with the collaboration of things, and artefacts, with situational possibilities of action and, at the same time, delimitating them” (*ibid*). This sensitivity is evidently grounded on the concept of “situated learning” (Lave & Wenger, 1991), which questions the reification of learning as an asymmetrical transfer of competencies from one person to another.

Moving from this constitutive tenet of practice theory, Alkemeyer & Buschmann (2017) conceptualise learning “as a process of participating in practices in which, alongside practical and propositional knowledges, identity and social membership are formed” (p. 12). Accordingly, I argue that healthcare professionals, including laboratory workers, are required to learn how to use technologies and how to competently locate themselves in a specific organisational context, the characteristics of which may co-define how drugs, medical protocols, or knowledges are produced and used (Shove et al., 2012). Thus, when I refer to the term “competency(ies)”, I do not have in mind the various formal norms and prescriptions in which “discrete,” and more or less related, tasks may be grounded; but rather the complex intertwinement of explicit and tacit knowledges, cultural and moral orientations, as well as taken-for-granted routines mobilized in bearing a concrete situations. In this perspective, the term competency acts in the manner of “sensitizing concept” (Blumer, 1954), allowing to understand knowing and learning-in-practice as source of innovation, making possible the same settings, conditions, rules and professional roles within which precision medicine is defined as such.

3 Methodological Note

Drawing on ethnographic research of running experiments to build care protocols for precision cancer medicine, the objective of this paper is to show how biomedicine can be analysed as “expert doing” and how, within it, a social researcher can empirically describe how *precision* is a process of situated *learning* and *knowing*. Ethnographic fieldwork was conducted in Italy at two biomedical organisations. The first is a major biomedical institute in northern Italy specialising in cancer care and research, primarily involved in managing genomic-driven clinical trials. The second, located in northeast Italy, is a research foundation, leading projects in cooperation with academic laboratories and hospitals with the objective of personalising treatment for cancer patients, especially those with leukaemia. Overall, observations were conducted at both organisations for six months. During this time, daily activities within research laboratories and hospital wards were followed. Handwritten field notes were taken during observation days, and 25 semi-structured interviews were conducted with laboratory researchers, molecular biologists, pharmacologists, chemists, data managers, clinicians, research nurses and medical laboratory scientific officers.

Given the paper’s focus, I have combined the pieces of data with the objective of tracing and following precision medicine practices across the different sites of knowledges production. In this respect, this paper originates from a series of activities synthesising findings and insights from different papers I have authored in this field (see Crabu, 2016, 2017, 2018). Hence, in the next sections, I analyse a series of “case vignettes” (Swan et al., 2007) focalised on precision cancer medicine in its “co-becoming”, together

with career biographies of practitioners (vignette 1 and 2) and organisational environments in which it is practised (vignette 1 and 3).

4 Findings

4.1 Vignette 1: Envisioning Precision

Generally speaking, precision cancer medicine refers to an ongoing biomedical endeavour aimed at boosting the translation of genetics knowledges to clinical routines. Medical discourse on precision medicine is usually dominated by a view of learning and training as a formal task of acquiring and possessing propositional knowledges, hence expressing a desire to render clinical actions more “rational” (Zuiderent-Jerak, 2015). But, if we orient the analysis on the day-to-day accomplishments of precision medicine, the monolithic agreement (which we easily notice in formal biomedical narratives) on the very meaning of being *precise* in caring for living bodies loses consistency:

I was walking down the aisle of the hospital ward in company of Mario, an oncologist at the dawn of his career, and Martino, a young Ph.D. student in the field of bio-nanotechnologies. The ward hosted both patients treated according to standard protocols and others enrolled in clinical trials. Today, drug infusions should be administered to patients enrolled in a Phase 1, genomic-driven clinical trial focusing on single-nucleotide polymorphism (a DNA sequence variation) of the gene “UGT1A1”. This is an experimental protocol aimed at personalising treatments for patients suffering from colorectal cancer. While we were walking, Mario told us about his frustration with the way he is involved in this trial. “Nobody explained to me... maybe, I think, no clinician... ever told me the reason why the heterozygosity of the UGT1A1 gene can determine an altered metabolism of the drug, so that you can administer a different dose of CPT-11 [i.e. Irinotecan, a drug used in the treatment of the metastatic colon or rectal cancer]. Just to be on the safe side, I went to read the protocol, but it was just out of personal curiosity. Sure, they [laboratory-based team] tell you: ‘have a look at the protocol yourself, study it.’ But this is not the point... The point is, that I feel the need to understand not the protocol, but how to get engaged in it... and sometimes, before speaking about translationality in medicine, we would need a little more coordination.” (Ethnographic fieldnotes on Mario, an oncologist involved in a department of clinical and experimental pharmacology - Human Ph@rma²)

Here, acting as a “precise” professional becomes a practical accomplishment, and precise “knowledges” are something that practitioners perform collectively by learning on how to manage a protocol as a matter of organising coordination arrangements. This happens by a processual reconfiguration of the concerned clinical setting, as a loci which can enable informal pedagogical trajectories. What is at stake, here, is to learn how to situate its own specific “piece of work” within a more large ecology of organizing interactions. In this respect, it is worth underlining that social science scholarship about the introduction of protocols for “precision medicine” in healthcare settings is deeply rooted in a conception of science as a *dispositif* of subjection (Dickenson, 2013; Prainsack, 2017), and as a proxy for deskilling of physicians. Accordingly, physicians — under the pressure of laboratory science — are supposed to be a mere executer of formalised Tayloristic tasks prescribed and crystallised in protocols, thus losing their alleged professional autonomy and “embodied skills” in caring for living bodies. A narration from the field can allow us to question this recurrent, even if highly disputable, reading over the reshaping of medical work:

[...] it seems more interesting, for someone like me who is very “clinical”, to follow patients within protocols managed by colleagues in the experimental unit, as I normally do in a Phase 1 protocol for personalising treatment for patients suffering from colorectal cancer. [...] So, you must follow the patient. You must assess whether that drug is good at that dose, that

2. Persons and locations names are pseudonyms

the “experimental people” think it is appropriate to administer for that mutation, for that particular genotype. By the way, it is the clinician who sometimes pays the bill [i.e. negative consequences]. Oh yes! Because maybe toxicity increases and, therefore, for you, there is a mountain of problems to face in the department. (Interview, Mario, an oncologist involved in the department of clinical and experimental pharmacology - Human Ph@rma)

To analytically capture this account, it is not sufficient to mobilize a “deskilling story”, since the protocols inevitably require to be contextualised within situated setting of actions. This process enacts a subjectivation process of the agents involved in translating scripts and the disposition of the protocols in practices (Akrich, 1992; Timmermans & Berg, 1997). Clinicians, as Mario’s account nicely shows, in “tinkering” the protocol, are deeply engaged in a process of learning new abilities in order to render such prescriptive text compatible both with the bodies of the patients (as non-docile agents) and with the local pre-existing and consolidated institutional, infrastructural and material relations.

Thus, what we observe is not a mechanical operation of adapting working routines to a new protocol. Accordingly, the protocol can no longer be considered as a device of linear deskilling and disempowerment of medical practices. On the contrary, practitioners in hospital wards engage themselves in a learning process as an affordance of the protocol in itself, required to manage conflicts between prescriptive texts and the complex yet unpredictable living bodies they work with. Indeed, by observing the “mise-en-contexte” (Latour, 1992, p. 89) of the protocol, we see how clinicians are not neutral followers of certain kinds of formal dispositions, but agents actively engaged in learning how to align their own perspectives, needs and professional skills with the protocol’s situated trajectory.

4.2 Case Vignette 2: Dismantling Epistemic Boundaries, Reshaping Professional Biographies

The distinctive feature of current precision medicine relies on the application of genomics for producing clinically actionable knowledges. Genomic technologies, as the technical infrastructure of precision medicine, are not simply tools used in the production cycle of precision protocols, but rather are processes that must be developed in practices (Timmermans & Berg, 2003). These developments can have crucial consequences for the management of healthcare settings, as physicians, researchers and laboratory workers make increasing use of diverse expert knowledges that must be rendered mutually compatible and congruent among each other. Indeed, clinicians and life scientists may construct occupational cultures that are not professional *stricto sensu*; these cultures can collide with the traditional boundaries between care settings and research spaces as well as with the consolidated management of the interface between the normal and the pathological:

I started working in a university department of pharmaceutical sciences. I never, ever talked to an oncologist there. I have never been told: “Look, the drug must have certain characteristics because otherwise, it causes toxicity to the patient, or because my clinical problem is this and not another one.” It was a job weakly connected to the clinic, and on one hand, this makes you less conscious about the impact of your work. On the other hand, it gives you much more freedom to experiment with what you judge to be relevant for the science because you are not bound to the fact that tomorrow, you must apply what you did to a patient. Here, when I think about a protocol or a project, I always must think about the fact that the data I produce must be immediately, or in the immediate future, applicable to the patient. [...] So, on one hand, there is the possibility of growing professionally, and taking into consideration the applicability of what you are doing is certainly something that enriches you. At the same time, it is an aspect that limits the possibilities of exploring areas, or things that may be relevant for me, and which can also give you great satisfaction in terms of research, but from which you do not see the immediate effect anyway. For example, I characterise a protein, and the patient or clinician does not care about it, though it would be useful for other researchers [Michela, a pharmacologist involved in the Department of Clinical and Experimental Pharmacology - Human Ph@rma].

When Michela was hired by a research laboratory outside of the academic institution, her work changed profoundly, both from the perspective of the purpose and the technical means to achieve it.

This transition in her professional biography, shared by many other researchers involved in the organisations where I conducted the fieldwork, led to a broader redefinition of the meaning, modalities and materials of conducting everyday working practices, thereby requiring learning how to act within a novel “style of practice” (Keating & Cambrosio, 2012). The patient’s living body is recognised as the main driver in generating research hypotheses, around which both care and laboratory practices are articulated. Hence, it is a matter of constructing new technoscientific and organisational repertoires that can co-define the conditions for the actualisation of a “precision medical practice”, which professionals consider to be a good way to approach pathological conditions that may affect the body. Under this perspective, the object of knowing in practice in precision medicine will be knowing simultaneously how to work, co-produce precision protocols with colleagues and patients, and “perform” an occupational identity, since traditional professional identities (primarily shaped around a specific institutionalised discipline) are fading under the pressure of contemporary biomedicine as a complex multidisciplinary endeavour (Disis & Slattery, 2010). The act of knowing concerns a learning process of how to accomplish participation and inter-professional relations as the generative effect of common practice.

4.3 Case Vignette 3: Enacting Precision Knowledges

Although ambivalences at the interface between the laboratory personnel and the clinical staff emerged, these were considered part of the field:

In the late afternoon, Pina (a senior experimental pharmacologist) — while discussing with her main assistant over a day entirely spent within the hospital ward — reflects on the “down-to-earth” practices required to correctly implement a protocol: “Have you ever noticed how important is to follow the nurses to make sure the blood samplings are done correctly? As I told you, it was a great achievement to engage dedicated research nurses in our clinical trials. They better understand how important is even just a minute to pharmacokinetics. If it is expected that the infusion run for 2 hours, but then it runs just for one hour and a half, because there is a problem with the infusion pump, like today... or maybe they notice that they are infusing a wrong dose of the drug, and therefore the infusion is stopped sooner... I need to be aware of all these events, because they are an extremely important source of information for conducting the pharmacokinetics [the study of the drug metabolism] in a proper way. Then, in the evening, of course, research nurses are replaced by general nurses. [...] But I’m trying to give make them aware of the importance of strictly respecting the schedule of the blood sampling or, at least, in case of error, to report it on the register [a form that records the blood sampling procedures]. This is why I guess our presence in the hospital ward is fundamental. Of course, this may look like a waste of time, because obviously I can’t immediately analyse samples and data. If I’m in the ward I can’t be working in the lab. But, for me this is just part of my job [...]. Many times my boss [the lab director] told me not to go to the ward, but this is too important for me. I feel compelled to be there, rather than risking that data be burnt. (Ethnographic field notes on Pina, experimental pharmacologist involved in department of clinical and experimental pharmacology - Human Ph@rma)

As this account highlights, there was a need to translate formal prescriptions into doable practical activities that could produce affordable biological materials and related evidences, thus enabling a shared understanding between the researchers and clinical staff involved in the study. Here, *precision* is an emerging property of a technologically dense environment that produces socio-technical conceptions of what should be “actionable” for precision medicine, and which attitudes and professional competencies are appropriate in bearing the combined management of the contextual factors inherent to the everyday organizing of the ward with the need to comply with laboratories rules.

Under this viewpoint, *precision* appear to be a distributed competence to produce organisational and inter-organisational work practices that ‘locate’ patients (potential or real) within a specific medical protocol. Therefore, *precision in practice* is socially constructed and shared among different professionals and embedded within the values, norms and rules operating in post-genomics medicine. In other words,

a “precision medicine” protocol results from the constant engineering of diverse elements (in the last vignette: biological materials, infusion pumps, sheets to document blood sampling procedures) that must be performed in, by and through situated practices by means of discursive (sharing a common cognitive framework with general nurses), material (to be able to repair / replace the infusion pump in case of failure) and social/organizing arrangements (negotiate with the lab director the legitimacy to stay in the ward to monitor infusion and blood sampling).

Another dimension of the learning process emerges regarding how to act as a “precision medicine practitioner” concerning the ability to manage unexpected events in coordination with other actors within the ward (e.g. infusion of a wrong dose of the drug). In this sense, the competent acting unfolds not only in performing specific habits and routines, but also in negotiating the technical plausibility of “precise” biomedical protocols, thereby facing uncertainties and technical intricacies. Indeed, Pina describes inter-laboratory cooperative paths in which the roots of laboratory work are prolonged to the point of becoming confused with clinical practice and with the innovation process *tout court*. On one hand, this form of cooperation lays the groundwork for patients’ care and assistance activities, and should not be considered ancillary to that of scientific research. On the other hand, it creates conditions for the transformation of clinical data from a merely descriptive element of a pathological condition to a constitutive and operative tool of lab life.

5 Final Remarks

Given the specificities of the context examined in this paper, I innervated a practice-based approach to learning with literature on the social manufacturing of expert knowledges and social studies of medicine not usually applied to the study of health professions, thus observing the shaping of multiverse healthcare practices as a problem of expert learning. In doing so, I have drawn attention away from abstract knowledges and cognitive processes by situating professionals in the health practices and communities through which knowledges and materials take on meanings. From this perspective, I proposed to analyse health practitioners as learners, who co-define a common understanding by integrating materials, values, local circumstances, and social relations of the people involved. Hence, learning to act as practitioners in precision medicine is strictly entangled with the local conditions in which it is learned, and “precision” is defined as such. In light of these considerations, I now distil and discuss three main dimensions related to the “learning” process as an entry point to explore healthcare professionals in the context of contemporary biomedicine:

- **The management of an evolving hybrid membership:** According to the discussed findings, learning is strictly intertwined with the socialising process; it is not merely a situated sharing of knowledges from senior members or “formal instructors” to junior ones. Senior members are also required to continuously learn to readjust their modalities of acting. In this sense, all participants are engaged in teaching and learning in practice, thus performing an hybrid membership, which largely exceeds formal prescriptions and tasks;
- **The management of professional transitions and the redefinition of organisational roles:** Learning is a socio-technical constructed process of positioning people and things with different form of agency. Indeed, learning is not a neutral process, but it takes place in biographical and historical landscapes that co-define peculiar forms and possibilities of participation and learning trajectories. In this sense, all agents are engaged in hybrid positioning between the role of instructor and that of apprentice, thus transforming themselves, and the contextual professional trajectory, by acting within a sociomaterial collective (an assemblage of things, people, knowledges and artefacts) of shared practices. Under this perspective, learning is not a set of discrete operations occurring within a specific perimeter, both of role or setting, but it is a constitutive dimension of a context of shared practices in itself — potentially disjointed from explicit pedagogical aims. Hence, learning implies contextually the definition and transformation of the organisational role, in terms of the defining the legitimisation of acting, range of autonomy and practical skills.

- **The management of conflictual / ambivalent circumstances:** Conflict and disagreement are strictly entangled in learning processes. In a context of action strongly characterised by a multi-disciplinary choreography, such as contemporary biomedicine, we observe diverse epistemological logic of actions and local “opportunistic necessities”, sometimes conflicting with each other. Clinicians, as the cultural and institutional professionals responsible for medicalising the patients’ bodies, are at once oriented to intervene in the configuration of laboratory life on the basis of their experiential and propositional knowledges, when the laboratory explicitly acts for the sake of the patient. On the other hand, laboratory practitioners may have or develop a different conception of how to produce clinically-actionable evidence with the aim of reinforcing their autonomy and organisational relevance. Observed from this perspective, learning implies negotiations of opportunities and interpretations of the different epistemic positions, thus actively questioning formal hierarchies and scientific requirements of the practice.

Learning — observed from a practice-based approach — is constitutive of every practice differentially distributed within a collective field in which participants have different perspectives, values and opportunities, even conflicting with each other. Accordingly, learning is a matter of defining and embedding in everyday work a set of abilities oriented to identifying and rendering different perspectives and epistemological regimens as mutually congruent, inherent to a heterogeneous field of practice. This implies the sharing of conventions on how to practise certain “operational purposes”, and how to gradually shift and readjust professional and biographical trajectories. In this sense, what should be considered “precise knowledges” in the context of contemporary biomedicine or, in more general terms, what is the “correct” way to act, is a matter of collective concern, since participants reflexively and actively define the consensus among potentially divergent perspectives. As a result, what I would finally stress is that learning is not a neutral activity, but a process that implies specific situated politics of knowledges, irreducible to a mere technical or functional dimension of doing something.

References

- Abbott, A. (1988). *The System of Professions*. Chicago: University of Chicago Press.
- Akrich, M. (1992). The De-Description of Technical Objects. In W.E. Bijker, & J. Law (Eds.), *Shaping Technology/Building Society: Studies in Sociotechnical Change* (pp. 205–225). Cambridge: MIT Press.
- Alkemeyer, T., & Buschmann, N. (2016). Learning in and across Practices: Enablement as Subjectivation. In A. Hui, T. Schatzki, & E. Shove (Eds.), *The Nexus of Practices. Connections, Constellations, Practitioners* (pp. 8–23). New York: Routledge.
- Blumer, H. (1954). What is Wrong with Social Theory?. *American Sociological Review*, 19(1), 3–10. <https://doi.org/10.2307/2088165>
- Burri, R.V., & Dumit, J. (Eds.). (2007). *Biomedicine as Culture. Instrumental Practices, Technoscientific Knowledge, and New Modes of Life*. London: Routledge.
- Brown, J.S., & Duguid, P. (1991). Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning, and Innovation. *Organization Science*, 2(1), 40–57. <https://doi.org/10.1287/orsc.2.1.40>
- Cambrosio, A., Keating, P., Schlich, T., & Weisz, G. (2009). Biomedical Conventions and Regulatory Objectivity. A Few Introductory Remarks. *Social Studies of Science*, 39(5), 651–664. <https://doi.org/10.1016/j.socscimed.2005.12.007>
- Cambrosio, A., Keating, P., Vignola-Gagné, E., Besle, S., & Bourret, P. (2018). Extending Experimentation: Oncology’s Fading Boundary between Research and Care. *New Genetics and Society*, 37(3), 207–226. <https://doi.org/10.1080/14636778.2018.1487281>

- Casper, M.J., & Berg, M. (1995). Constructivist Perspectives on Medical Work: Medical Practices and Science and Technology Studies. *Science, Technology & Human Values*, 20(4), 395–407. <https://doi.org/10.1177/016224399502000401>
- Chamberlain, J.M. (2010). Regulating the Medical Profession: From Club Governance to Stakeholder Regulation. *Sociology Compass*, 4(12), 1035–1042. <https://doi.org/10.1111/j.1751-9020.2010.00338.x>
- Clarke, A.E., Mamo, L., Fishman, J.R., Shim, J.K., & Fosket, J.R. (2003). Biomedicalization: Technoscientific Transformation of Health, Illness, and U.S. Biomedicine. *American Sociological Review*, 68(3), 161–194. <https://doi.org/10.2307/1519765>
- Clarke, A.E., Mamo, L., Fishman, J.R., Shim, J.K., & Fosket, J.R. (2010). Biomedicalization: A Theoretical and Substantive Introduction. In A.E. Clarke, L. Mamo, J.R. Fishman, J.K. Shim, & J.R. Fosket (Eds.), *Biomedicalization: Technoscience and Transformations of Health and Illness in the U.S.* (pp. 1–44). Durham: Duke University Press.
- Collins, R. (1979). *The Credential Society: An Historical Sociology of Education and Stratification*. New York: Academic Press.
- Conrad, P. (1992). Medicalization and Social Control. *Annual Review of Sociology*, 18, 209–32. <https://doi.org/10.1146/annurev.so.18.080192.001233>
- Conrad, P. (2007). *The Medicalization of Society: On the Transformation of Human Conditions into Treatable Disorders*. Baltimore: Johns Hopkins University Press.
- Crabu, S. (2016). Translational Biomedicine in Action: Constructing Biomarkers across Laboratory and Benchside. *Social Theory & Health*, 14(3), 312–331. <https://doi.org/10.1057/sth.2015.35>
- Crabu, S. (2017). *Dalla molecola al paziente. La biomedicina nella società contemporanea*. Bologna: Il Mulino.
- Crabu, S. (2018). Rethinking Biomedicine in the Age of Translational Research: Organisational, Professional, and Epistemic Encounters. *Sociology Compass*, 12(10), e12623. <https://doi.org/10.1111/soc4.12623>
- Dickenson, D. (2013). *Me Medicine vs. We Medicine. Reclaiming Biotechnology for the Common Good*. New York: Columbia University Press.
- Disis, M.L., & Slattery, J.T. (2010). The Road We Must Take: Multidisciplinary Team Science. *Science Translational Medicine*, 2(22), 22cm9. <https://doi.org/10.1126/scitranslmed.3000421>
- Erling, P.M., & Magnussen, J. (2011). Resisting Market-Inspired Reform in Healthcare: The Role of Professional Subcultures in Medicine. *Social Science & Medicine*, 73(2), 193–200. <https://doi.org/10.1016/j.socscimed.2011.04.025>
- Foucault, M. (1973). *The Birth of the Clinic: An Archaeology of Medical Perception*. New York: Pantheon.
- Freidson, E. (1970). *Professional Dominance: The Social Structure of Medical Care*. New York: Atherton Press.
- Freidson, E. (1985). The Reorganization of the Medical Profession. *Medical Care Review*, 42(1), 11–35. <https://doi.org/10.1177/107755878504200103>
- Gardner, J. (2017). *Rethinking the Clinical Gaze. Patient-Centred Innovation in Paediatric Neurology*. Cham: Springer International.
- Garfinkel, H., & Liberman, K. (2007). Introduction: The Lebenswelt Origins of the Sciences. *Human Studies*, 30(1), 3–7. <https://doi.org/10.1007/s10746-007-9045-x>

- Gherardi, S. (2009). Knowing and Learning in Practice-Based Studies: An Introduction. *The Learning Organization*, 16(5), 352–359. <https://doi.org/10.1108/09696470910974144>
- Ginsberg, G.S., Willard, H.F. (Eds.). (2013). *Genomic and Personalized Medicine*. London: Academic Press.
- Hafferty, F.W., & Castellani, B. (2013). Two Cultures: Two Ships: The Rise of a Professionalism Movement Within Modern Medicine and Medical Sociology's Disappearance from the Professionalism Debate. In B.A. Pescosolido, J.K. Martin, J.D. McLeod, & A. Rogers (Eds.), *Handbook of the Sociology of Health, Illness, and Healing* (pp. 201–220). New York: Springer.
- Hallowell, N., Cooke, S., Crawford, G., Lucassen, A., & Parker, M. (2009). Distinguishing Research from Clinical Care in Cancer Genetics: Theoretical Justifications and Practical Strategies. *Social Science & Medicine*, 68(11), 2010–2017. <https://doi.org/10.1016/j.socscimed.2009.03.010>
- Jasanoff, S. (Ed.). (2004). *States of Knowledge. The Co-Production of Science and Social Order*. New York: Routledge.
- Keating, P., & Cambrosio, A. (2003). *Biomedical Platforms. Realigning the Normal and the Pathological in Late-Twentieth-Century Medicine*. Cambridge: MIT Press.
- Keating, P., & Cambrosio, A. (2012). *Cancer on Trial. Oncology as a New Style of Practice*. Chicago: University of Chicago Press.
- Haraway, D.J. (1997). *Modest_Witness@Second_Millennium.FemaleMan®_ MeetsjOncomouse™: Feminism and Technoscience*. New York: Routledge.
- Latour, B. (1992). *Aramis ou l'amour des techniques*. Paris: La Découverte.
- Lave, J., & Wenger, E. (1991). *Situated Learning. Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Lewis, J., Hughes, J., & Atkinson, P. (2014). Relocation, Realignment and Standardisation: Circuits of Translation in Huntington's disease. *Social Theory and Health*, 12(4), 396–415. <https://doi.org/10.1057/sth.2014.13>.
- Lock, M., Young, A., & Cambrosio, A. (Eds.). (2000). *Living and Working with the New Medical Technologies. Intersections of Inquiry*. Cambridge: Cambridge University Press.
- Morgan, M., Barry, A.C., Donovan, J.L., Sandall, J., Wolfe, C., & Boaz, A. (2011). Implementing “Translational” Biomedical Research: Convergence and Divergence among Clinical and Basic Scientists. *Social Science & Medicine*, 73(7), 945–952. <https://doi.org/10.1016/j.socscimed.2011.06.060>
- Nelson, N.C., Keating, P., Cambrosio, A., Aguilar-Mahecha, A., & Basik, M. (2014). Testing Devices or Experimental Systems? Cancer Clinical Trials Take the Genomic Turn. *Social Science & Medicine*, 111(6), 74–83. <https://doi.org/10.1016/j.socscimed.2014.04.008>
- Prainsack, B. (2017). *Personalized Medicine. Empowered Patients in the 21st Century?*. New York: New York University Press.
- Rabeharisoa, V., & Bourret, P. (2009). Staging and Weighting Evidence in Biomedicine Comparing Clinical Practices in Cancer Genetics and Psychiatric Genetics. *Social Studies of Science*, 39(5), 3–36. <https://doi.org/10.1177/0306312709103501>
- Rose, N. (2007). *The Politics of Life Itself. Biomedicine, Power, and Subjectivity in the Twenty-First Century*. Princeton: Princeton University Press.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. London: Sage.

- Sydney, H., & Anspach, R.R. (1993). The Study of Medical Institutions: Eliot Freidson's Legacy. *Work and Occupations*, 20(3), 279–295. <https://doi.org/10.1177/0730888493020003002>
- Swan, J., Bresnen, M., Newell, S., & Robertson, M. (2007). The Object of Knowledge: The Role of Objects in Biomedical Innovation. *Human Relations*, 60(12), 1809–1837. <https://doi.org/10.1177/0018726707084915>
- Timmermans, S., & Berg, M. (1997). Standardization in Action: Achieving Local Universality through Medical Protocols. *Social Studies of Science*, 27(2), 273–305. <https://doi.org/10.1177/030631297027002003>
- Timmermans, S., & Berg, M. (2003). The Practice of Medical Technology. *Sociology of Health & Illness*, 25(3), 97–114. <https://doi.org/10.1111/1467-9566.00342>
- Zuiderent-Jerak, T. (2015). *Situated Intervention: Sociological Experiments in Health Care*. Cambridge: MIT Press.

Stefano Crabu: Politecnico di Milano (Italy)

🌐 <https://orcid.org/0000-0002-0180-716X>

✉ stefano.crabu@polimi.it

Stefano Crabu is a science, technology, and medicine sociologist at the Department of Design of the Politecnico di Milano. He mainly works on scientific and technological innovation processes in the life sciences and ICT. His recent publications have centred on the sociomaterial and epistemological aspects of contemporary biomedicine, laboratory practices, and hacking practices. He has authored or co-authored papers in these areas for *Social Theory & Health*, *Computer Supported Cooperative Work: The Journal of Collaborative Computing and Work Practices*, *Sociology Compass*, and *Social Science & Medicine*.

The Sociomateriality of Cooking. The Practice Turn in Contemporary Food Studies

Lorenzo Domaneschi*

Submitted: May 31, 2019 – Accepted: December 11, 2019 – Published: December 31, 2019

Abstract

The paper presents the so-called “practice turn in contemporary theory” and its possible and profitable sociological application to the field of food studies. Starting from the epistemological perspective that sees the concept of practice as the ongoing arrangement resulting from the social organization between different elements, I present a brief critical review of the research works about food culture that has drawn on a practice-based approach, in order to show how it affords to move from a “sociology of food” to a “sociology of food social practices.” Then, I discuss one particular approach offered by theories of practice, based on the category of “sociomateriality”. Finally, I briefly introduce, by way of example, the empirical analysis of the practice of professional cooking to show the potentiality of this approach. In conclusion, I will discuss the strengths and the vulnerabilities related to the analysis of food social practices, focusing in particular on the issue of symbolic power.

Keywords: Practice Theory; Sociology of Food; Culinary Culture; Sociomateriality; Habitus; Ethnography; Symbolic Power.

*I think it is a sad reflection on our civilisation
that while we can and do measure the
temperature in the atmosphere of Venus,
we do not know what goes on inside our soufflés*
– Nicholas Kurti

1 Introduction

Good to eat or good to think? Most of the sociological and anthropological thinking about food and food culture has been involved with the relationship between the material and the symbolic dimension of food, as exemplified neatly in the two famous works by Marvin Harris (1985) and Claude Lévi-Strauss

* University of Milano-Bicocca (Italy); ✉ lorenzo.domaneschi@unimib.it;  <https://orcid.org/0000-0001-5604-8810>

(1964). In fact, such a strong opposition between the materiality of foodstuff and the symbolic meanings of nutrition leads not by chance to the definition of a “Sociology of food *and* eating” (Murcott, 1982; Germov & Williams, 1999; Poulain, 2005). Furthermore, focusing on food choice and how this “is neither random nor haphazard, but exhibits patterns and regularities” (Murcott, 1982, p. 203) another fracture has been drawn in the field of food studies (Abala, 2013) between sociology of food consumption and sociology of food production (Goodman & DuPuis, 2002).

Of course, of the actual panorama of food studies is far more complex than this rapid sketch could track down and sure many attempts, from different disciplines, have been made recently (Abbots & Lavis, 2013; Cappellini et al., 2016; Steel & Zin, 2017) in order to overcome some of the previous dichotomies. However, in what follows, without claiming to be exhaustive, I will try to show how recent approaches based on theories of practice (Hui et al., 2017), despite internal differences and disagreements (Nicolini, 2012; Jonas et al., 2017), could fruitfully participate in such a debate.

Especially, there are two specific issues that practice-based approaches seem particularly appropriate to tackle: the view of social order as “arrangements” (Schatzki, 2001) and the agentic role of materiality (Pickering, 2001).

Instead of seeking “patterns and regularities” (Murcott, 1982, p. 203) that shape food choices or systems of food production, practice scholars share a different conception that not only reveals the inadequacy of the widespread equation of order with regularity but also “building upon the complex and variable connections that exist among things [such an approach] construes order as *arrangements*” (Schatzki, 2001, p. 51).

An arrangement is a layout of entities in which they relate and take up places with respect to one another. On the basis of this intuitive conception, *social* order can be defined as arrangements of people and the organisms, artifacts, and things through which they coexist. [...] They thereby take up positions with regard to one another that combine aspects of these four dimensions. As elements of the arrangement, these entities also possess identities (who someone is) or meanings (what something is) (*ibidem*).

Practice is thus considered “a mode of ordering rather than an ordered product, an epistemology rather than an empirical phenomenon” (Gherardi, 2017, p. 39). Hence, such a point of view allows challenging traditional classifications about *what* is material and *who* is human, since such a dynamic outcome (Strangers & Maller, 2019) emerges precisely from a specific arrangement enacted through practice.

Accordingly, drawing on this epistemological perspective, I will start showing how it affords to move from a “sociology of food *and* eating” to a “sociology of food social practices”. First, I concisely survey some of the classic sociological works on food and nutrition and then presenting a brief critical review of the research works that have drawn on a practice-based approach. Then, I will discuss one particular approach offered by theories of practices, based on the category of “sociomateriality” (Orlikowski, 2007; Gherardi, 2017). Finally, I will briefly introduce, by way of example, the empirical analysis of the practice of professional cooking in order to discuss the potential of this type of method. In conclusion, I will deal with the strengths and the vulnerabilities related to the analysis of food social practices, focusing in particular on the issue of symbolic power (Bourdieu, 1998).

2 Sociology of Food (Social Practices)

As suggested by Barry Smart (1994), worlds of food are often thought of as suitable metaphors of particular aspects of social life, or as useful heuristic opportunities to explore other issues and other aspects of culture. While there are several examples of such an attitude,¹ the notion of *food social space* by Jean-Pierre Poulain (2005), instead, established an autonomous theoretical framework capable of sociologically framing food as a structuring dimension of the social organization of human groups. Of course, the idea of an autonomous social space in which specific dimensions of human action take place is not quite new in sociology: it is, in fact, the very same process described by the classics of this discipline as

1. To name but a few, one can find the issue of individualization (Beardsworth & Keil, 1997); the issue of the agri-food industrialization (Howard, 2016) or the issue of health (Caplan, 1997).

secularization of social life (Durkheim, 1894; Weber, 1922). According to these theories, the process of modernization is characterized precisely by the creation of specialized sub-sectors, each of which must then come to terms with the wider social space, understood as non-specialized.²

Poulain identifies, therefore, a *food social space* defined by two fundamental constraints that set the relationship between humans and food. On the one hand, there is a “biological” limit relative to the biochemical mechanisms underlying the nutrition and the consequent digestive and metabolic possibilities of humankind. On the other hand, an “ecological” constraint obliges every human group to come to terms with the availability of nutritional resources of every specific “ecological niche” in which it is established.

While these two limitations mark the boundaries of a specifically *food social space*, yet there remain very high degrees of freedom to the human presence inside such a social space that must be organized with the complicity of social factors (Poulain, 2005). Hence, investigating the social organization of such freedom to inhabit the *food social space* constitutes the main purpose of a sociology of food.

In fact, if we read in this way two seminal researches in the field of sociology of food such as those by Ritzer (1996) and Fischler (1990) it is easy to detect two separate positions in their focusing, respectively, on productive and consumer activity. Also, it is apparent what it is actually a rather widespread tendency in food literature, to contrast the intrusion of economic power of institutional actors — like the big fast-food multinationals (Ritzer, 1996) — to the symbolic dimension of culture understood as the exclusive prerogative of the consumer subjective action (Fischler, 1990). This kind of bifocal attention — namely a dualism — has soon led to separate two different research streams within the food studies. We can thus easily find, in such a literature, a sociology of taste and nutrition (*sociology of food*) opposed to a rural sociology (or *agri-food theory*). While the former pays attention to the reflective skills of the consumer, the second focuses instead on the technological and economic dynamics leading agricultural and industrial development of food (Goodman & DuPuis, 2002).

However, several scholars have been dedicated to attempting to overcome such a dualism and breaking the border between food production and consumption (Morgan et al., 2006). Particularly, there have been three different efforts to analyze the *food social space*: the first, from the point of view of an economic sociology it is based on the concept of System of Provision (Fine et al., 1996); the second, based on a sociology of science, draws on Actor-Network Theory (Goodman, 2001); the third, on the basis of a sociology of morality, it is mostly grounded on Theory of Conventions (Morgan et al., 2006). In spite of evident differences, though, some elements covertly unite them. Two characteristics, in particular, while already emerging in the two classic approaches by Ritzer (1996) and Fischler (1990), they return in all the three previous debates as fundamental issues³ and they are still present in many recent works (Abbots & Lavis, 2013; Howard, 2016; Neswald, 2017).

- The intersection between “human” and “non-human” elements, that is the reciprocal position assumed by human action and materiality, and the consequent valorization attributed to the two dimensions in different contexts.
- The governance of these different resources, that is the power relations that rule, in fact, the criteria for integration of elements.

Hence, the series of contributions that are grouped under the name of “theories of practice” (Schatzki et al., 2001; Reckwitz, 2002; Hui et al., 2017) seem to be able to satisfy both these issues in a very promising way. Ultimately, with the term practice we refer to:

[...] a routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, “things” and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge (Reckwitz, 2002, p. 249).

2. Among the most interesting insights of this type of dynamics there are the so-called “field theory” developed by Pierre Bourdieu (1992), then employed by Ferguson (2004) for her analysis of the emergence of French cuisine and the approach proposed by Howard Becker (1982) in terms of “worlds of art”, then employed by Fine in his ethnography of kitchen culture (1996).

3. Since there is not space here to show examples of these recurrent themes in literature, see Domaneschi (2018b) for a more complete and contextualized treatment of such an issue.

Accordingly, the classical concept of social order is here converted as the organized outcome of a plurality of elements that participate in the definition of the practice (Schatzki et al., 2001), and the attention moves, therefore, from the subject behaviour to the organized combination assumed, from time to time, by the elements through which the activity is arranged (Hui et al., 2017).

In fact, this kind of practice-based research on food is quite pervasive, especially in the realm of sustainable practice (Spaargaren et al., 2012; Crivits & Paredis, 2013; Evans et al., 2017), but it has been applied also for studying fair trade goods (Wheeler, 2012) and novel foods (House, 2019), as well as veganism (Twine, 2017) and vegetarianism (Plessz & Gojard, 2014) and finally consumption of Real Ale beer (Thurnell-Read, 2016). In all these cases, practice-based approaches proved more and more their ability to grasp points of view which remain otherwise obscure to other approaches to food culture, both methodologically (Halkier & Jensen, 2011) and theoretically (Domaneschi, 2012). This capacity of grasping different views, for example, emerge particularly in diverse work on eating practices (Cappellini et al., 2016; Devaney & Davies, 2016; Warde, 2016). Mainly, the work by Warde (2016) identifies eating — and not either the eater or the meal — as the central unit of analysis, therefore practices are viewed as a meso-level social construct, interconnected to broader structures and individual behaviour. In this way, he makes clear how practice theories effectively decentres the commonplace notion that individual deliberation and consumer choice constitute the basis of the food world.

Furthermore, according with the central notion of arrangements determined through practice, there will be some elements and some links between them which, for a given practice, will be more relevant than others in order to constitute it as such. Some of these elements and the links between them, in fact, will be more often used than others, since they are indispensable for the accomplishment of the practice itself. This is a crucial point, in fact it means that it is not only relevant to isolate the organizational elements that build the practice, but also that we need to track down the *different forms of agency* that can be found within such arrangement.

A fundamental concept of the practice-oriented approach is therefore that of *distributed agency* (Sahakian & Whilite, 2014), which bring the issue of power into the practice approach (Watson, 2017). This concept in fact, focuses on how the agent is never completely the subject of his activity, since he is just one element between many others who perform the arrangement that emerges as a practice. Social agents rather participate in a nexus of relations hierarchized according to specific geometries of power. Accordingly, the aim is to grasp the emergence of a practice “without succumbing to old habits of either attributing deterministic power to practices over the activities of participants or presupposing fully formed actors who are ready for action.” (Alkemeyer & Buschmann, 2017, p. 9).

In other words, when theories of practice raise the question of the diverse agentic roles of materiality, they also bring the issue of challenging classifications between what is human and what in non-human (Riskin, 2016) and, finally, the problem of their dynamic entanglements (Maller & Strenger, 2019).

3 The Matter of Agency: A Sociomaterial Approach to Food Practice

Drawing on the concept of practice seen as a mode of ordering, rather than an ordered product (Hui et al., 2017), then, means drawing on the idea of *arrangements* of different elements and, consequently, investigating the *distributed agency* that address such a specific organization. Hence, I will now focus on the arrangement between human and non-human elements, in the particular case of *food social space* (Poulain, 2005), examining the dynamic classification of such elements (Maller & Strengers, 2019)

In fact, in the case of food studies, material arrangements (Schatzki, 2010) are surprisingly ignored, if we consider how the classical sociological models of food consumption (Beardsworth & Kell, 1997; Lupton, 1996; Murcott, 2019) more than often “disregards the effectivity of not only animal bodies, but also the ‘bodies’ of vegetables, minerals, and pharmaceutical, bacterial or viral agents.” (Bennett, 2007, p. 133). In fact, even when materiality is at the core of the analysis (Douglas, 1972; Cook & Crang, 1996; de Solier, 2013), nonhuman matter is presented as purely the setting for the play of human action. Yet, according to a practice-based approach, the materiality of foodstuff is endowed with agentic capacity not restricted to the human actor (Yotova, 2013). As some food scholars have recently suggested, along a so called “visceral approach” (Bennet, 2010; Longhurst, 2009; Abbots, 2017) “this material agency would include the negative power to resist or obstruct human projects, but it would also entail the active

power to exert forces and create effects.” (Bennett, 2007, p. 133). In order not to privileging meaning over matter, agency is considered as a force distributed across multidirectional flows, overlapping eaters, foodstuff and knowledge about food (Abbots, 2017). Hence, here food is seen as “an active inducer-producer of salient, public effects, rather than a passive resource at the disposal of consumers.” (Bennett, 2007, p. 134).

In the case of fat, for instance, we need to bear in mind not only larger humans and their economic-cultural prostheses (agribusiness, snack food vending machines, serving sizes, microwave ovens, bariatric surgery) but also the strivings and trajectories of the fats themselves, as they vie with — or more indirectly, weaken or strengthen — human wills, practices, habits and ideas (Bennett, 2007, p. 138).

In this line, food allows to exemplify the process of becoming over being, since within these arrangements between eaters, foodstuff and meanings, “particular elements can be so contingently well-positioned that they can significantly alter the direction or function of the assemblage” (*ibidem*).

Moreover, another relevant group of material elements can alter the direction of food practice: not only foodstuff per se, but also the technological equipment available in order to eat or to cook foodstuff (Wilson, 2012). Practice-based approaches, indeed, clearly stress the impact of the changing role of freezer (Shove & Southerton, 2000) or cooking robots (Truninger, 2011) on domestic practices of cooking and eating. On the whole, the broad process of rationalization of cooking and the kitchen (van Otterloo, 2000; Denis, 2016) exemplify neatly how materiality channels an agentic capacity not restricted to the human actor but strongly intertwined with it.

Therefore, according to this particular vein within practice-based approaches, the issue is not whether or not materiality matters; rather, it is “whether materiality merely mediates human activities — as in human-centred theories — or is constitutive of practice, as in post-human practice theories. (Gherardi, 2017, pp. 38–39). The opportunity that such a re-turn to practice theory offers to food studies is then to move beyond problematic dualisms (Schatzki, 2001) between voluntarism and determinism, agency and structure, and, not lastly, the dualism between the social and the material, the human and the nonhuman. The latter, in fact, may be overcome drawing on the concept of sociomateriality (Orlikowski, 2007; Gherardi, 2017).

While a humanist approach to practice assumes the centrality of humans as sites of embodied understandings and then proceeds to analysis of humans and their practices, a posthumanist approach instead interrogates how all the elements within a practice hold together and acquire agency in being entangled. In the latter case, “sociomateriality” may be considered an attribute of any practice, and “sociomaterial” an adjective that stresses how a practice is constituted by matter and culture (Gherardi, 2017, pp. 49–50).

Sociomateriality, for example, becomes a relevant attribute in food social practices if we look at how foodstuff is mobilised through the agro-food network to end up in a consumer’s body (Goodman, 2001; Roe, 2006). In fact, “the term ‘food’ is used to convey the ‘thing’ caught up in the process of being eaten by a consumer. Foodstuff is what this material is before it becomes engaged in the actual process of eating.” (Roe, 2006, p. 112). Instead of examining the status of a subject who consume or embody any food (Lupton, 1996; Baumann et al., 2017), the sociomaterial attribute of food consumption practices deals with the intimate material connections between “bodies that eat” and the “bodies that are eaten” (Roe, 2006). For example, understanding the eating of a potato as a practice arising out of a material relationship formed between the nonhuman potato and the embodied human consumer “offers the potential to attend seriously to the ‘continuities and discontinuities’ [...] in consumption practices” (2006, p. 117). This is exactly what it means looking not much at the patterns and regularities of human choice and rather exploring the particular practical arrangements emerging through consumption activity.

Of course, different approaches like new materialism (Kissman & van Loon, 2019) or Science and Technology Studies (Latour, 2005) especially in the light of affordance theory (Hutchby, 2001) have already focused on material entities as “resources that enable and constrain characteristics of a practice” (Jacobsen & Hansen, 2019, p. 6). However, such accounts, although explicitly focusing on the materials of practice, they seem to crucially underestimate the sociologically critical question of symbolic power,

without which “it becomes difficult to understand why people engage in different practices and why people perform differently within the same practice.” (Jacobsen & Hansen, 2019, p. 9).

Thus, the concept of habitus (Bourdieu, 1998) becomes here particularly apt to solve such an issue, especially when considered as the principle of action only — and exclusively — when it is activated by objective possibilities. As stated by Bourdieu, after all, habitus works only within the dialectic relationship between two states of the social: between history in (human) bodies and history in (non-human) things, or, more precisely, between “the history objectified in the form of structure [...] and the history incarnated in the form of habitus, a complicity which is the basis of the quasi-magical participation between these two realizations of history” (Bourdieu, 1998, pp. 150–151).

This case, could be interpreted in the sense of the proposition of Gilbert Ryle, quoted by Bourdieu, according to which:

[...] just as we should not say that a window broke because a stone hit it, but that it broke because it was breakable, one should not say that a historical event determined a behaviour but that it had this determining effect because a habitus capable of being affected by that event conferred that power upon it (1998, p. 149).

However, in order to take seriously and thoroughly Bourdieu’s intuition of the encounter of two stories, the second part need to be articulated more than usual Bourdieusian account seem to do (Domaneschi, 2018a). That is, we need to investigate arrangements generated by the encounter between the social history embodied in one body (systems of dispositions) and the social history fixed in places and objects (systems of material entities) (Jacobsen & Hansen, 2019). The practical outcome is thus produced by the encounter between a specific set of material elements and a set of habituses that could be invested — in different degrees — from such a new combination of objects.

Finally, the dynamic distribution of agency between different human and non-human elements — or, what is likely the same, the cultural classification that separate the two states of the social (Maller & Strengers, 2019) — becomes the main focus of the empirical analysis.

4 When Things Become Food: The Practice of Cooking

I will deal now with the cooking practice of manipulation and transformation of food inside restaurant kitchens, in order to show how different elements — both human and non-human — interweave and work together making up a particular version of “regional cuisine,” understood as an *ongoing sociomaterial accomplishment*.

The practice of cooking has been in fact a relevant object of investigation by practice scholars, sometimes focusing on the role of time on domestic practices (Hand & Shove, 2004; Plessz & Etile, 2018) or particularly exploring the use of visual methodologies (Willis et al., 2015; Martens & Scott, 2016; Torkkeli et al., 2018). Others have concentrated on professional cooking practices (Domaneschi, 2012; Stierand, 2014; Nelson et al., 2017).

In order to show the prospect of a sociomaterial approach to professional cooking practice, I now discuss some findings from an ethnography I carried out (Domaneschi, 2018b). I have selected a population of commercial cooks within an Italian regional context and, in particular, the city of Genoa, which is an urban centre situated in the North-West of Italy. Drawing on Fine’s ethnography of restaurant cooks (1996), focusing on “second tier” commercial cooks inside a particular urban area allows me to investigate how they build common agreements on the concept of “good food” and its relationship with regional cuisine. For that reason, the ethnographic research presented is the result of several observations and interviews sessions on the Genoese area during the last ten years. I spent time in 14 Genoese restaurants located between the city, the coast and the hinterland and interviewed cooks and other parts of the kitchen staff. I looked for differentiation in the biographical trajectories of the commercial cooks as well as in the plurality of economic and organizational environments, in order to have a range of situations able to respect the plurality of the urban context.

During my field inside diverse kitchens, I could attend to quite a bunch of unforeseen events, mostly in the evening, when the place was almost full, especially due to particular customer requests, or to faults

in some kitchen technology or even to errors by waiters. In all of these circumstances — less rare than one might think — a particular work of “adjustment” was required to correct the unexpected.

Evening. F. allowed me to stay in the kitchen during the service, to observe her and her sous chef. At mid-service, a table command arrives asking for a plate with more than half of the ingredients to be replaced, most of which I had never even heard. After a look between her and the waiter, F. confirms that almost all the ingredients are missing. F. and his sous chef look at each other and without even say a word immediately begin to prepare the dish, while F. says to communicate to the customer that everything is fine. From that moment, the two cooks move quickly and coordinated, each carrying a piece of the preparation, until the plate is closed and released. Before I can ask them anything, F. tells me: “Can you guess how many times it happens? When I saw J. [the waiter] with the command, I already understood [...] having to improvise for these here [the customers] is regular [...] we just made a soup that is better than he asked, but he will not even sense the difference (field note, restaurateur chef 6, female, seaside).

At first glance, then, such a practical “improvisation” could easily be interpreted as a feature of the chef habitus (Gomez, 2003), that is a body technique coming from a long process of embodiment.⁴ Similarly to the case of the boxer (Wacquant, 2004), also for the cooks a sort of “practical anticipation” is here activated on the background of the tradition embodied by the cook. As she belongs to a particular *food social space*, therefore, “regulated improvisations” become possible.

However, what it is less evident in the previous account, yet crucial for the accomplishment of the task at the stake — that is cooking a requested recipe without the required ingredients — it is the role of the soup, meaning its agency. Only the particular attuning between the embodied skill played by the cook *and* the affordance guaranteed by the ingredients allows to come to terms with the customer request.

From the point of view of a practice based-approach, it is just such a specific arrangement of elements *in the same activity* which becomes the research focus. Relevant questions become, then, how such an organization of practice become possible? How does it work and with what effects? How is it recurrently performed?

For example, the very same practice of improvisation, could be performed in a slightly different way, when it is experienced as a joyful dimension that constitutes an integral and almost habitual part of the creation of the menu, often explicitly linked to the musical idea to synthesize the whole creative process:

[...] the various [...] ingredients are like musical instruments and the various cooking techniques are [...] well... let's say, the notes are the ingredients, the cooking techniques are the instruments, and then your knowledge is the skills of the musician [...] and at some point you learn how to reproduce as all composers do [...] [...] who are trying to reproduce a piece and do it well [...] and this is the basis [...] but then the best part comes when you start to improvise[...] and something is good, something is bad, you do experiment [...] and you keep learning[...] [...] I promise... for me the kitchen must be a game [...] and when you have good products that are like beautiful colors [...] then have fun and something good definitely comes out [...] (interview, cook restaurateur 2, male, city center).

These two extracts, thus, while dealing with the practice of professional cooking as a form of improvisation, they bring to light two different performances of the same practice. The point here is that such an improvisation, at least in the case of cooking, is a form of practical anticipation not just since it is already written in the body of the cook in the form of habitus yet only *together* with the affordance of the raw materials. Instead of seeking *a priori* relationships among self-contained entities — either the subject's body or the materiality of ingredients, “bodies who eat” and “bodies who are eaten” — relations exist in and through enactment. They are in fact located in action and performed in practice (Schatzki, 2001).

4. Yet, some other scholars might focus, for example, on the boundary work which separate chefs from customers (Hendley, 2016).

Two different examples may bring some light to this point. The first concerns the question of “prehension”, meaning the technique of grasping something, which indicates those movements that the body act in advance of sensory data, like when we grasp a glass and the hand will assume a rounded shape, before it actually touches the surface (Sennett, 2008, p. 151). Again, it looks like an essential example of practical anticipation.

Lunch. S. is showing to his sous chef how to serve an anchovy pie with steamed vegetables. I watch her while, with only one hand, she arranges the pie slices on the plate using a silicone spatula, until forming a vertical composition, while, at the same time, with the other hand she garnishes it with a sauce and finally adding some aromatic plants as decoration. She performs the two gestures at different speeds but always with methodical precision. When his sous chef tries to repeat these gestures he fails several times. S. shows him the sequence again and says to him: “See? It depends on how you grasp the spatula, you have to be light to be quick [...]” and then she adds smiling “look... *these vegetables can feel you* [...] they are not made of plastic[...] ok?... they are still alive [...] they can feel it as you pick them up [...] and you have to listen to them [...] and feel them in return... understand?” (field note, restaurateur cook 4, female, riviera).

Still, it would sound straightforward to find an elementary case of body technique and then to rely on embodiment as the main source of explanation. Though, at least a second element is taking part within the action described, that is the vegetables who are, according to the chef, in fact *alive* and they contribute to orient the practice together with the human body. In other words, the previous field note shows how different habituses could be able to interact differently with the same material entities of practice, not only because of different embodied skills but also because of their relation with the specific affordance of materials. Actually, it is the vegetables that lead the practice, becoming not by chance an almost incarnated social agent, to be listened to — both kinaesthetically and emotionally — and to be cognitively understood, while the chef body requires the ability to submit as much as possible to the characteristics of the object, to pull out as much as possible from the object itself.

Ethnographic observation helps here to better explain the particular relationship between the cook’s embodied competences and the material equipment inside the kitchen. Of course, the relationship with the material dimension is not at all something peculiar to the cooks belonging to the Italian gastronomic field.⁵ However, within the professional cooks I studied there can be found a specific practical orientation towards the technical apparatus of food processing.

Evening. I am in the kitchen together with chef R. and his sous chef A., right after the end of the service. We are drinking wine and, we chat in relax. As we speak, I take a siphon in my hand and begin to play with it, watching it from different angles. R. looks at me then turns to A. and says: “I hate that crap [...] every time I have to use it [...] it’s stronger than me [...] it bothers me [...]” I smile and wait to hear A.’s answer. He looks first at R., then looks back at me and at the end he says: “I do not like it either, look [...] doping food it’s definitely not my idea of cooking, whether with air or anything [...] It’s like cheating[...] you know [...] but if you think about it, it’s the same thing with fire or water [...] in the end we have to make something with these ingredients [...] I mean[...] at the end of the day... you only have to be able to control these elements... [...] that’s basically cooking, right? [...] to control the elements that transform foodstuff [...] to transform them [...] but without making them lose their identity [...] that’s it[...].” (field note, chef-restaurateur 7, male, hinterland).

This relation between human control over non-human technology and its effects on the raw materials concerns the combination between the ergonomic peculiarities of the tool and the competence embodied in the cook. Such a particular arrangement allows to multiply the perceived quality of food: acquiring this self-control, in fact, is interpreted in the sense of decreasing rather than increasing the human pressure exerted by the instrument over the foodstuff, keeping intact its specific non-human

5. A similar logic, for example, is at the base of classical French gastronomy, in which the division into separate areas of cooking is associated with the different knives necessary for that specific activity (Wilson, 2012).

qualities, and then multiplying — through a skilled handicraft artifice — the perception of naturalness of the raw material.

Again, it becomes clear the relationship through which different habituses could be able to interact with different material entities within the practice. To demonstrate the specificity of such a practical knowledge, not by chance, Bourdieu appropriates Heidegger's famous example of practical dealings with a hammer. The agent's relation to the world is "a relation of knowledge: the habitus suited to the hammer [...] is the one that is capable of hammering; the habitus is what responds appropriately to the solicitations of a social object." (2015, p. 243). Such a bodily *hexis*, in Bourdieu's words (1998) is often the result of a sort of addiction to the instrument, that is the outcome of indulging in the aims that are inscribed in the device as a tacit instruction for use; ultimately, it is the result of having been used, if not exploited, by the instrument.

Likewise, all the references I listened from the cooks I interviewed and observed in terms of "respect" of the raw materials, the need for a "gentle" cooking technique or "delicate" cuts and, above all, the construction of practical techniques such as the releasing knife, account for a particular structuring of the elements of the practice that aims to reinforce this type of "artificiality" capable of producing its opposite: namely, "natural" ingredients.

Another example, in this line, concerns the role of "callus", understood as "localized tactility" and capable of an "intelligent" competence in the assessment of materiality (Sennett, 2008). While the thickening of the skin at one single point of the hand is supposed to make the skin numb and working as a disadvantage in the practical activity, we know that in fact the opposite is true: protecting the nerve endings of the hand, the callus makes the act of examining less hesitant. As Sennett eloquently proves by illustrating the case of medieval goldsmiths, "the callus performs by the hand the same function performed by the zoom for the photo camera" (2008, p. 151).

Often, I could observe chefs, both at the time of choosing the raw materials and at the time of the tasting phase during the preparations, use this embodied zoom in order to feel and interpret the affordance of foodstuff.

Evening. We are halfway through the service. An order comes in the kitchen from the table of what the water calls the "gastronomic critics." M. smiles, puts a pan on the fires and he starts to select artichokes and mushrooms. While holding the artichokes in his hands, still to be cleaned, it seems that he makes a strange massage to them, at the end of which some are selected and others are put back into place. At the end of that operation, I ask him the meaning of that operation and if he does not hurt himself with the thorns of the artichokes. M. smiles, turns the palm of my hand towards me, shows me the calluses on the lower part of the palm and on the fingertips and tells me: "See these? They are my secret weapon [...] [smiling] with these I can touch hot objects, crush the thorns, actually they are kind of my super powers [...] in fact it's only thanks to them that I can feel if the artichokes are as they are supposed to be, I mean... if the consistency is beautifully firm, if the tips are well closed, and if the stem is long and turgid with dark leaves [...] with these super powers in my hands... *I can actually listen to what the ingredients have to say* (field note, restaurateur cook 8, bad, city centre).

Finally, this symbolic power of recognizing what is and what is not "quality food" is inscribed in the bodies of the social agents and in their judgment schemes, as much as it is inscribed in the tools and materials that contribute to make this practice, which provides, in turn, the potential triggers for different components of the habitus. In short, this symbolic power is a property of the practice itself (Watson, 2017).

What we use to label "Italian regional cuisine", accordingly, is the ongoing practical accomplishment generated by these arrangements of organized elements (Byrkjeflot et al., 2013). Particularly, in the analysis presented here about the sociomaterial organization *within* a specific cooking practice, it is the arrangement of the social location taken by some subjects (professional cooks of a contemporary Italian urban context) towards a whole series of foodstuff and technologies (raw materials related to the territory in which they operate, culinary tools and procedures derived from family experience).

5 Conclusions: From Embodiment to Entanglement

Since the far-seeing paper by Murcott (1982) about the relevance of a cultural analysis of food, a considerable body of work has developed in what is now known in English as “food studies” (Abala, 2013). Yet, what Murcott indicated back then seems to be still on nowadays. In fact, the sociologist highlighted how “elaboration of the cultural significance of food and eating focuses on social values, meanings and beliefs rather than on dietary requirements and nutritional values” (Murcott, 1982, p. 203). Besides, she suggested that such an approach “starts by appreciating that peoples’ food choice is neither random nor haphazard, but exhibits patterns and regularities” (Murcott, 1982, p. 203). Remarkably, this separation between social values, meaning and beliefs, on the one side, and dietary requirement and nutritional values, on the other side, persists quite strongly in the present literature (Murcott, 2019; Neswald et al., 2017). As it is for the second claim about the definition of social order *qua* a set of “patterns and regularities”.

On this basis, the practice-based approach I have tried to illustrate here, aims exactly to break with these two presuppositions: it is set on a conception of order *qua* arrangements of elements instead of regularities (Schatzki et al., 2001), and it is equipped to overcome the dualism between the social (values and meanings) and the material (foodstuff and technology) (Warnier, 2001).

According to the sociomaterial approach I tried to illustrate, there is the need to stress the empirical and theoretical relevance of the material element and its ability to actively contribute to the assemblage of a social practice and not only as a mere complement awaiting a social agent who can give life to it. Such a claim means that the social practice, once seen as *the ordering of the relationship* between the subject and the object, it becomes the unit of analysis (Hui et al., 2017). A promising theoretical path in order to follow this view, could be taking seriously the Bourdieusian intuition about the encounter between the social history embodied in one human body and the social history objectified into things (Bourdieu, 1998). Thus, for example, in order to call in question how things become food (Roe, 2006) during the cooking practice, one should not ask what body techniques make a tool or a raw material more or less “alive”. Yet, the issue becomes what practice emerges from the active integration between the particular affordance given by a set of ingredients and a particular set of habituses available in that occasion.

This is a crucial point. In fact, rather than relying on substances of various kinds (ingredients, knife, chef identities, etc.) as fundamental participants of any activity, where relationships only supplement or modify them, a sociomaterial approach to food practice should establish its work in the understanding that the *food social space* is *constituted* by relations. Qualities, values and meanings do not belong to something inherent or “inside” a substance but instead depend on how, when and where they are related to each other’s. Here, in fact, we specifically make a turn to practice. Instead of seeking *a priori* relationships among self-contained entities, we regard relations as existing in and through enactment. They are organized and performed in practice (Schatzki et al., 2001).

This does not mean, as has been suggested, that the world is made anew moment-by-moment through some process of extreme emergence but rather that structure is enacted through recurrent practices and stability is an ongoing accomplishment. [...] Practices always have the potential to perform something different. [...] In other words, reality is the entanglement of matter and meaning produced *in practice* within specific phenomena. [...] Entanglement calls into question the idea of pre-existing categories such as “subject” and “object”, “human” and “nonhuman”, and “matter” and “meaning”, seeing these instead as enacted in practice. (Scott & Orlikowski, 2014, pp. 881–882)

Hence, a sociomaterial approach to food practice invites to move from embodiment to dynamic entanglements of humans and non-humans (Maller & Strengers, 2019) as different way to investigate the production of social order within *food social space* (Poulain, 2005). In fact, this opens up the issue of the boundary work, challenging traditional classification of what is considered as material and what is categorized as human body, or, which is the same, the issue of symbolic power (Bourdieu, 1998).

That is why I tried to illustrate the potentiality of a combination between the concepts of habitus — as a detachable capsule from Bourdieu’s theory, for the purposes of a dispositional theory of action (Wacquant, 2014) — and the more recent practice-based approaches (Hui et al., 2017) as a path to understand how human and non-human elements begin to take each an active part in the “distributed agency”

of every social practice. On the one hand, acknowledging the role of materiality on the work of habitus would allow to investigate “the contradictions, the failures, the sudden and abrupt reorganizations of given subjectivities-cum-materiality” (Warnier, 2001, pp. 21–22). On the other hand, investigating such dynamic relationships permits to “challenge traditional classification of ‘materials’, ‘objects’ or ‘material arrangements’ in theories of social practice” (Maller & Strengers, 2019, p. 5). In fact, while in most praxeological approach the ‘carriers’ of practices remain unquestionably human (Shove et al., 2012), I tried to show how such symbolic power could shift dynamically from human bodies who eat to non-human bodies that are eaten.

References

- Abala, K. (Ed.). (2013). *Routledge International Handbook of Food Studies*. Milton Park: Routledge.
- Abbots, E.J. (2017). *The Agency of Eating: Mediation, Food and the Body*. London: Bloomsbury.
- Abbots, E.J., & Lavis, A. (Eds.). (2013). *Why We Eat, How We Eat. Contemporary Encounters between Foods and Bodies*. London: Routledge.
- Alkemeyer, T., & Buschmann, N. (2017). Learning in and across Practices: Enablement as Subjectivation. In A. Hui, T. Schatzki, E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (pp. 8–23). London: Routledge.
- Baumann, S., Szabo, M., & Johnston, J. (2017). Understanding the Food Preferences of People of Low Socioeconomic Status. *Journal of Consumer Culture*, 19(3), 316–339. <https://doi.org/10.1177/1469540517717780>
- Beardsworth, A., & Keil, T. (Eds.). (1997). *Sociology on the Menu*. London: Routledge.
- Bennett, J. (2007). Edible Matter. *New Left Review*, 45(3), 133–145.
- Bennett, J. (2010). *Vibrant Matter: A Political Ecology of Things*. Durham: Duke University Press.
- Bourdieu, P. (1992). *Le règles de l'art*. Paris: Seuil.
- Bourdieu, P. (1998). *Pascalian Meditations*. Cambridge: Polity Press.
- Bourdieu, P. (2015). *Sociologie générale: Cours au Collège de France 1981-1983*. Paris: Seuil.
- Denis, B. (2016). In Search of Material Practices: The Nineteenth-Century European Domestic Interior Rehabilitated. *History of Retailing and Consumption*, 2(2), 97–112. <https://doi.org/10.1080/2373518x.2016.1194712>
- Byrkjeflot, H., Pedersen, J.S., & Svejnova, S. (2013). From Label to Practice: The Process of Creating New Nordic Cuisine. *Journal of Culinary Science & Technology*, 11(1), 36–55. <https://doi.org/10.1080/15428052.2013.754296>
- Caplan, P. (1997). *Food, Health and Identity*. London: Routledge.
- Cappellini, B., Marshall, D., & Parsons, E. (Eds.). (2016). *The Practice of the Meal: Families, Food and the Market Place*. London: Routledge.
- Cook, I., & Crang, P. (1996). The World on a Plate: Culinary Culture, Displacement and Geographical Knowledge. *Journal of Material Culture*, 1(2), 131–154. <https://doi.org/10.1177/135918359600100201>
- Crivits, M., & Paredis, E. (2013). Designing an Explanatory Practice Framework: Local Food Systems as a Case. *Journal of Consumer Culture*, 13(3), 306–336. <https://doi.org/10.1177/1469540513484321>
- De Solier, I. (2013). *Food and the Self: Consumption, Production and Material Culture*. London: Bloomsbury.

- Devaney, L., & Davies, A.R. (2017). Disrupting Household Food Consumption through Experimental HomeLabs: Outcomes, Connections, Contexts. *Journal of Consumer Culture*, 17(3), 823–844. <https://doi.org/10.1177/1469540516631153>
- Domaneschi, L. (2012). Food Social Practices. Theory of Practice and the New Battlefield of Food Quality. *Journal of Consumer Culture*, 12(3), 306–322. <https://doi.org/10.1177/1469540512456919>
- Domaneschi, L. (2018a). Brand New Consumers: A Social Practice Approach to Young Immigrants Coping with Material Culture in Italy. *Cultural Sociology*, 12(4), 499–517. <https://doi.org/10.1177/1749975518768978>
- Domaneschi, L. (2018b). *Fare Cucina. La Cultura della Qualità Alimentare tra Arte e Artigianato*. Roma: Carocci.
- Douglas, M. (1972). Deciphering a Meal. *Daedalus*, 101(1), 61–82. <https://doi.org/10.4324/9781315680347-4>
- Durkheim, E. (1894). *Les formes élémentaires de la vie religieuse*. Paris: PUF.
- Evans, D., Welch, D., & Swaffield, J. (2017). Constructing and Mobilizing “The Consumer”: Responsibility, Consumption and the Politics of Sustainability. *Environment and Planning A: Economy and Space*, 49(6), 1396–1412. <https://doi.org/10.1177/0308518x17694030>
- Ferguson, P.P. (2004). *Accounting for Taste. The Triumph of French Cuisine*. Chicago: University of Chicago Press.
- Fine, G.A. (1996). *Kitchens: The Culture of Restaurant Work*. Berkeley: University of California Press.
- Fischler, C. (1990). *L'omnivore*. Paris: Jacob.
- Germov, J., & Williams, L. (Eds.). (1999). *Sociology of Food and Nutrition: The Social Appetite*. Melbourne: Oxford University Press.
- Gherardi, S. (2017). *Sociomateriality in Posthuman Practice Theory*. In A. Hui, T. Schatzki, & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (pp. 38–51). London: Routledge.
- Gomez M., Bouty, I., & Drucker-Godard, C. (2003). *Developing Knowing in Practice: Behind the Scenes of Haute Cuisine*. In D. Nicolini, S. Gherardi, & D. Yanow (Eds.), *Knowing in Organizations: A Practice-Based Approach* (pp. 100–125). New York: M.E. Sharpe.
- Goodman, D., & DuPuis, M. (2002). Knowing Food and Growing Food: Beyond the Production-Consumption Debate in the Sociology of Agriculture. *Sociologia Ruralis*, 42(1), 6–23. <https://doi.org/10.1111/1467-9523.00199>
- Goodman, D. (2001). Ontology Matters: The Relational Materiality of Nature and Agro-Food Studies. *Sociologia Ruralis*, 41(2), 182–200. <https://doi.org/10.1111/1467-9523.00177>
- Halkier, B., & Jensen, I. (2011). Methodological Challenges in Using Practice Theory in Consumption Research. Examples from a Study on Handling Nutritional Contestations of Food Consumption. *Journal of Consumer Culture*, 11(1), 101–123. <https://doi.org/10.1177/1469540510391365>
- Hand, M., & Shove, E. (2004). Orchestrating Concepts: Kitchen Dynamics and Regime Change in Good Housekeeping and Ideal Home, 1922–2002. *Home Cultures*, 1(3), 235–256. <https://doi.org/10.2752/174063104778053464>
- Harris, M. (1985). *Good to Eat*. New York: Simon & Schuster.
- Hendley, A. (2016). Seeking Self-Verification: Motives for Private and Personal Chefs’ Boundary Work. *Cultural Sociology*, 10(4), 466–482. <https://doi.org/10.1177/1749975516650230>

- House, J. (2019). Modes of Eating and Phased Routinisation: Insect-Based Food Practices in the Netherlands. *Sociology*, 53(3), 451–467. <https://doi.org/10.1177/0038038518797498>
- Howard, P.H. (2016). *Concentration and Power in the Food System: Who Controls What We Eat?* London: Bloomsbury.
- Hui, A., Schatzki, T., & Shove, E. (2017). *The Nexus of Practices: Connections, Constellations, Practitioners*. London: Routledge.
- Hutchby, I. (2001). Technologies, Texts and Affordances. *Sociology*, 35(2), 441–456. <https://doi.org/10.1017/S0038038501000219>
- Jacobsen, M.H., & Hansen, A.R. (2019). (Re)introducing Embodied Practical Understanding to the Sociology of Sustainable Consumption. *Journal of Consumer Culture*. Online First. <https://doi.org/10.1177/1469540519846213>
- Jonas, M., Littig, B., & Wroblewski, A. (Eds.). (2017). *Methodological Reflection on Practice Oriented Theories*. Berlin/Heidelberg: Springer.
- Kissman, U.T., & van Loon, J. (Eds.). (2019). *Discussing New Materialism. Methodological Implications for the Study of Materialities*. Berlin/Heidelberg: Springer.
- Latour, B. (2005). *Reassembling the Social*. New York: Oxford University Press.
- Lévi-Strauss, C. (1964). *Le cru et le cuit*. Paris: Plon.
- Longhurst, R., Johnston, L., & Ho, E. (2009). A Visceral Approach: Cooking “at Home” with Migrant Women in Hamilton, New Zealand. *Transactions of the Institute of British Geographers*, 34(3), 333–345. <https://doi.org/10.1111/j.1475-5661.2009.00349.x>
- Lupton, D. (1996). *Food, the Body and the Self*. Thousands Oaks: Sage.
- Martens, L., & Scott, S. (2017). Understanding Everyday Kitchen Life: Looking at Performance, into Performances and for Practices. In M. Jonas, B. Littig, & A. Wroblewski (Eds.). *Methodological Reflections on Practice Oriented Theories* (pp. 177–191). Cham: Springer.
- Maller, C., & Strengers, Y. (Eds.). (2019). *Social Practices and Dynamic Non-Humans. Nature, Materials and Technologies*. London: Palgrave.
- Morgan, K., Marsden, T., & Murdoch, J. (2006). *Worlds of Food. Place, Power and Provenance in the Food Chain*. Oxford: Oxford University Press.
- Murcott, A. (1982). The Cultural Significance of Food and Eating. *Proceedings of the Nutrition Society*, 41(2), 203–210. <https://doi.org/10.1079/pns19820031>
- Murcott, A. (2019). *Introduction the Sociology of Food and Eating*. London: Bloomsbury.
- Nelson, P., Beckie, M.A., & Krogman, N.T. (2017). The “Locavore” Chef in Alberta: A Situated Social Practice Analysis. *Food, Culture and Society*, 20(3), 503–524. <https://doi.org/10.1080/15528014.2017.1288798>
- Neswald, E., Smith, D.F., & Thoms, U. (2017). *Setting Nutritional Standards: Theory, Policies, Practices*. Rochester: University of Rochester Press.
- Nicolini, D. (2012). *Practice Theory, Work, and Organization: An Introduction*. Oxford: Oxford University Press.
- Orlikowski, W. (2007). Sociomaterial Practices: Exploring Technology at Work. *Organization Studies*, 28(9), 1435–1448. <https://doi.org/10.1177/0170840607081138>

- Pickering, M. (2001). *Practice and Posthumanism: Social Theory and a History of Agency*. In T.R. Schatzki, K. Knorr-Cetina, & E. Von Savigny (Eds.), *The Practice Turn in Contemporary Theory* (pp. 163–174). London: Routledge.
- Plessz, M., & Étilé, F. (2019). Is Cooking Still a Part of Our Eating Practices? Analysing the Decline of a Practice with Time-Use Surveys. *Cultural Sociology*, 13(1), 93–118. <https://doi.org/10.1177/1749975518791431>
- Plessz, M., & Gojard, S. (2015). Fresh Is Best? Social Position, Cooking, and Vegetable Consumption in France. *Sociology*, 49(1), 172–190. <https://doi.org/10.1177/0038038514521715>
- Poulain, J.P. (2005). *Sociologies de l'alimentation. Les mangeurs et l'espace sociales alimentaire*. Paris: PUF.
- Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243–263. <https://doi.org/10.1177/1368431022225432>
- Riskin, J. (2016). *The Restless Clock: A History of the Centuries-Long Argument over What Makes Living Things Tick*. Chicago: Chicago University Press.
- Ritzer, G. (1996). *The McDonaldization of Society*. London: Sage.
- Roe, E.J. (2006). Things Becoming Food and the Embodied, Material Practices of an Organic Food Consumer. *Sociologia Ruralis*, 46(2), 104–121. <https://doi.org/10.1111/j.1467-9523.2006.00402.x>
- Sahakian, M., & Wilhite, H. (2014). Making Practice Theory Practicable: Towards More Sustainable Forms of Consumption. *Journal of Consumer Culture*, 14(1), 25–44. <https://doi.org/10.1177/1469540513505607>
- Schatzki, T. (2001). *Practice Mind-Ed Orders*. In T.R. Schatzki, K. Knorr-Cetina, & E. Savigny (Eds.), *The Practice Turn in Contemporary Theory* (pp. 42–55). London: Routledge.
- Schatzki, T. (2010). Materiality and Social Life. *Nature and Culture*, 5(2), 123–149. <https://doi.org/10.3167/nc.2010.050202>
- Schatzki, T.R., Knorr-Cetina, K., & Von Savigny, E. (Eds.). (2001). *The Practice Turn in Contemporary Theory*. London: Routledge.
- Scott, S.V., & Orlikowski, W.J. (2014). Entanglements in Practice: Performing Anonymity through Social Media. *MIS Quarterly*, 38(3), 873–893. <https://doi.org/10.25300/misq/2014/38.3.11>
- Sennett, R. (2008). *The Craftsman*. New Heaven: Yale University Press.
- Shove, E., & Southerton, D. (2000). Defrosting the Freezer: From Novelty to Convenience: A Narrative of Normalization. *Journal of Material Culture*, 5(3), 301–319. <https://doi.org/10.1177/13591835000500303>
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice*. London: Sage.
- Spaargaren, G., Oosterveer, P.J.M., & Loeber, A.M.C. (Eds.). (2012). *Food Practices in Transition — Changing Food Consumption, Retail and Production in the Age of Reflexive Modernity*. London: Routledge.
- Stierand, M. (2015). Developing Creativity in Practice: Explorations with World-Renowned Chefs. *Management Learning*, 46(5), 598–617. <https://doi.org/10.1177/1350507614560302>
- Steel, L., & Zinn, K. (Eds.). (2017). *Exploring the Materiality of Food “Stuff”*. *Transformations, Symbolic Consumption and Embodiments*. London: Routledge.

- Thurnell-Read, T. (2018). The Embourgeoisement of Beer: Changing Practices of “Real Ale” Consumption. *Journal of Consumer Culture*, 18(4), 539–557. <https://doi.org/10.1177/1469540516684189>
- Torkkeli, K., Mäkelä, J., & Niva, M. (2018). Elements of Practice in the Analysis of Auto-Ethnographical Cooking Videos. *Journal of Consumer Culture*. Online First. <https://doi.org/10.1177/1469540518764248>
- Truninger, M. (2011). Cooking with Bimby in a Moment of Recruitment: Exploring Conventions and Practice Perspectives. *Journal of Consumer Culture*, 11(1), 37–59. <https://doi.org/10.1177/1469540510391221>
- Twine, R. (2018). Materially Constituting a Sustainable Food Transition: The Case of Vegan Eating Practice. *Sociology*, 52(1), 166–181. <https://doi.org/10.1177/0038038517726647>
- Van Otterloo, A.H. (2000). The Rationalization of Kitchen and Cooking 1920–1970. *Journal for the Study of Food and Society*, 4(1), 19–26. <https://doi.org/10.2752/152897900786690788>
- Wacquant, L. (2004). *Body and Soul. Notebooks of an Apprentice Boxer*. New York: Oxford University Press.
- Wacquant, L. (2014). Putting Habitus in Its Place: A Response to the Symposium. *Body and Society*, 20(2), 118–139. <https://doi.org/10.1177/1357034X14530845>
- Warde, A. (2016) *The Practice of Eating*. Cambridge: Polity Press.
- Warnier, J.-P. (2001). A Praxeological Approach to Subjectivation in a Material World. *Journal of Material Culture*, 6(1), 5–24. <https://doi.org/10.1177/135918350100600101>
- Watson, M. (2017). *Placing Power in Practice Theory*. In A. Hui, T. Schatzki, & E. Shove (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (pp. 169–182). London: Routledge.
- Weber, M. (1922). *Wirtschaft und Gesellschaft*. Tübingen: Mohr.
- Wheeler, K. (2012). The Practice of Fairtrade Support. *Sociology*, 46(1), 126–141. <https://doi.org/10.1177/0038038511416162>
- Wills, W.J., Dickinson, A.M., Meah, A., & Short, F. (2016). Reflections on the Use of Visual Methods in a Qualitative Study of Domestic Kitchen Practices. *Sociology*, 50(3), 470–485. <https://doi.org/10.1177/0038038515587651>
- Wilson, B. (2012). *Consider the Fork: A History of How We Cook and Eat*. New York: Basic Books.
- Yotova, M. (2013). “It Is the Bacillus that Makes Our Milk”: Ethnocentric Perceptions of Yogurt in Postsocialist Bulgaria. In E.J. Abbots & A. Lavis (Eds.), *Why We Eat, How We Eat. Contemporary Encounters between Foods and Bodies* (pp. 169–185). London: Routledge.

Lorenzo Domaneschi: University of Milano-Bicocca (Italy)

ORCID <https://orcid.org/0000-0001-5604-8810>

✉ lorenzo.domaneschi@unimib.it; <https://www.unimib.it/lorenzo-domaneschi>

Lorenzo Domaneschi is Assistant Professor at the University of Milano-Bicocca. His main research interests include theories of social practice, sociology of food, consumption studies and ethnography. He has published several articles about food culture and cooking practices. His last book is *Fare Cucina. La Cultura della Qualità Alimentare tra Arte e Artigianato* (Carocci, 2018).

Expert Wine Tasting as a Social Practice: An Enactive Ethnography

Mario de Benedittis*

Submitted: June 1, 2019 – Accepted: December 12, 2019 – Published: December 31, 2019

Abstract

The present contribution uses the theoretical framework of theories of practice to examine expert wine tasting. This paper highlights a number of sociologically interesting issues that have been previously conceptualised in the literature, trying to enlighten aspects not clearly showed by other theoretical approaches. After providing a summary and analysing the main themes touched upon by sociology when dealing with the issue of tasting, the central focus of the article will be on a “practice-oriented” analysis based on data collected during empirical research, in progress since 2013, concerning the production, distribution and commercial aspects of the wine field in Italy. The approach followed is considered an enactive ethnography. In addition, the practice theories approach will be integrated with the dispositional approach, along with the theory of social fields, in order to clarify some points that would be less clear through practice theories alone.

Keywords: Wine; Practice Theories; Bourdieu; Enactive Ethnography; Wine Tasting.

1 Introduction

Wine tasting is an activity that has been understood from various points of view by the social sciences. In this introduction, outlined are some of the main approaches to this issue before looking through the lens of practice theories (Reckwitz, 2002; Schatzki, 2002; Shove, Pantzar, & Watson, 2012; Hui, Schatzki, & Shove, 2017), which are sometimes integrated with Bourdieu’s dispositional approach and field theory (Bourdieu, 1992 & 1997; Wacquant, 2015), and understood in the context of empirical research.

A first line of studies in which wine tasting is analysed is that linked to the social production of legitimate taste, social stratification and its function of identity. The moment of tasting a wine as a lover/connoisseur is present in studies like that of Kendall (2008) in elite clubs or Sherman (2011) on taste work in lifestyle management. As Schwarz (2013) states:

* University of Milan (Italy); ✉ mario.debenedittis@unimi.it;  <http://orcid.org/0000-0003-4196-0895>

[The] mastery of tasting techniques often serves as a basis for exclusion just as the mastery of good taste does. In certain contexts, people who know how to drink wine and are able to judge and discuss wine may gain different privileges. (p. 423)

For example, in his research on the elite business selection and recruitment processes in France and Germany, Hartmann (2000) shows how mastering the knowledge of wines and how to taste them signals a syntonized habit with the recruiters themselves. Additionally, Howland (2013) reviewed how fine wine connoisseurship became cultural and symbolic capital, denoting an elite status (or, nowadays, a means of middle-class distinction).¹ In any case, however, attention in this kind of study is directed to what has been carried out thanks to wine tasting, and not to wine tasting itself.

A second strand enters more into the specificity of wine cultures, analysing how the various tasting situations serve to highlight internal classifications. The latter refers to the prestige of the producing companies or the placement of drinkers within the hierarchy traced by the continuous boundary work (Lamont & Molnar, 2002) implemented by producers, sommeliers and drinkers themselves. Thus, it is possible, as exemplified by Jamerson (2009), to focus on the symbolic boundaries produced by the Napa Valley wineries during guided tastings. These symbolic boundaries are aimed at building or strengthening divisions, like those between commercial and elite wines or between status seekers and real connoisseurs and lovers of rare wines.

Many observers have concentrated on the linguistic and semiotic facets of tasting:

The spread of the semiotic means provided to the consumer for engaging with things brought close to and especially into the human body, the very senses and naturalised aesthetic sensibility of which are mobilised to and in acts of judgment. In such judgment, language is central, in the form of what I term an aggressively cultivated *register effect* (Silverstein, 2016, p. 186).

For instance, Lehrer (2009) wrote about the differences between scientific and non-scientific uses of wine talk, Silverstein (2004) about “oinoglossia”, and in the Italian debate, Navarini (2015 & 2016) delineates the limits of language when moving from the tasting experience.

Stemming from wide research on tasting practices (not only those related to wine), Hennion (2007) and Hennion and Teil (2004) offered a satisfactory outline of wine tasting within a pragmatic framework but without going into detail about what really happens when people have different habitus, positions in the wine field or those faced with various tasting situations during a wine tasting. In a very schematic way, they examined the moment of expert wine tasting, as it would always coincide with blind tasting or a high reflexivity activity. However, it is not the case that wine tasting coincides with a high reflexive activity.

2 Framework and Methodology

If those illustrated previously are some of the main junctures addressed by the literature on wine tasting, I believe that a practice-oriented approach can shed light on many aspects that have been given little or no consideration.

More than based on the — to me — hyper-synthetic version of practice theory sketched by Shove, Pantzar, & Watson (2012), which groups the elements of the practice under the categories of “materials”, “competence” and “meaning”, herein, we will employ a combination of this method with the more articulated theory of Reckwitz (2002, p. 249), according to which “a ‘practice’ (Praktik) is a routinised type of behaviour which consists of several elements that are interconnected with one another: forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge.” This will be added to by intuitions by Schatzki (2002), who underlines the importance of space in structuring social practices. This is not the space for a detailed analysis of the differences between the variants within the theories of practices, but, briefly, the prior choice is dictated by the idea that too much compression of different

1. About this issue, see also Overton & Warwick (2013) and Demossier (2004).

elements into a single category — be it “materials”, “competences” or “meanings”, as Shove, Pantzar, & Watson (2012) illustrate — creates difficulties in understanding social phenomena. An example among all, drawing upon the issue discussed in this article: if someone considers the body, objects and infrastructures under the single category of “materials”, in the analysis of a practice like wine tasting, he is actually making a superimposition of entities that have memory, like the body, on to others, such as glasses, which have no memory.

For the sake of this article, we will consider the following “elements” of practice, developing for each of them a brief discussion about their role on expert wine tasting by matching the concepts with data collected: 1) bodily activities; 2) mental activities; 3) materials; 4) spaces; 5) background knowledge and know-how; 6) emotions and motivational knowledge; and 7) language and meanings.

It is necessary to specify which wine tasting practice I will refer to: the area taken into account is above all what I define as expert tasting, that is, the tasting that has potential field effects (Bourdieu, 1992) for the people who participate or for the contexts in which it is held. I have chosen not to discuss professional tasting because certain wine enthusiasts, owing to their personal contiguity with the producers and experience as tasters, are able to exercise field effects (e.g., commenting on a wine in a WhatsApp chat with the producers themselves, talking about it on Facebook, writing for a non-profit blog) while not being professionally involved in any manner within the wine world.

The empirical approach I followed was that of an enactive ethnography (Wacquant, 2015), or a

long-term, *intensive, even initiatory, form* of ethnographic involvement liable to allow the investigator to master in the first person, *intus et in cute*, the pre-discursive schemata that make up the competent, diligent, and appetent member of the universe under examination. [...] The methodological stipulation here is to dive into the stream of action to the greatest possible depth, rather than watch it from the bank; but to dive and swim along with method and purpose, and not with reckless abandon that would cause us to drown in the bottomless whirlpool of subjectivism.” (Wacquant, 2015, pp. 4–5)

It is important to assume roles within the field or phenomenon that we study in order to not remain purely in the position of spectator. In so doing, the researcher submits him/herself to the constraints and forces in place in the field, understanding better its dynamics (Wacquant, 2014). The first act, as in the case for other colleagues who have studied the world of wine, was to complete a path that already started when I was very young and worked in a wine bar, and then was suspended from a sommelier association;² secondly, to start writing for a blog (later a real portal) of food and wine critics, thus building relationships within the world of wine, while I participated assiduously in fairs and tastings.

However, the turning point came in 2014, when my friends that own a small wine distribution company asked me to be a selector and buyer, look for small craft producers and pay attention both to the quality of wines and the stories of producers, hence bringing together my expertise in the wine sector and sociology. This allowed me a glimpse into the various phenomena that interested me, from productive practices to commercial ones, and not least to the world of professional tasting, including the experience, thanks to a chain of relationships, of participating in the 2016 tasting panel for the Marche region of the most important Italian guide in the sector, *Gambero Rosso*.

The analysis provided is based on 73 in-depth interviews with wine producers, eight with importers and distributors, 14 with wine promoters, 12 with journalists and bloggers, and hundreds of visits to wineries and small producers, as well as ethnographies conducted during wine fairs in Italy, including Vinitaly, Villa Favorita-VinNatur, Cerea-ViniVeri, Sorgente del Vino, Mercato Fivi, Vini di Vignaioli, Naturale, Io Bevo Così, Vinissage, and others. I attended the same fairs every year since 2013, numbering usually between ten and twenty per year, including the new fairs that arose each year. Moreover, within this context, I also took into account some moments in which the practice of tasting was carried out in a day meal between friends, if some of them existed in the condition described before, that is, people who can have a field effect in the wine field. One last remark about the use of empirical material: because of the pervasive nature of some sentences or behaviours during wine tasting practice, in some passages, I will regroup, under a generic sentence or observed behaviour, literally hundreds of similar phrases or

2. The association was the AIS (Associazione Italiana Sommelier).

ways of acting so that it will not be possible to know the specific context in which these events happened. The point is to comprehend the constitutive status of these words and actions for the practice analysed in the paper.

3 The Elements of Wine Tasting Practice

3.1 Bodily Activities and Wine Tasting

A crucial feature of practice theories is looking at the body as a central element of social life (Ginev, 2019; Wallenborn, 2013). If we study the practices surrounding tasting wine, we immediately face several bodily activities: first of all, the more obvious, such as the gestures of tasting or turning glasses — an activity that novices do not find so easy and that experts embody to the point of automatically turning a glass no matter what is inside, even water — looking at the colour, smelling the scents, spreading wine all over the mouth, spitting in a spittoon (another bodily activity that readily allows the identification of novices who manage with some effort the correct spitting technique, sometimes having embarrassing episodes),³ or people outside the enoic field who used to attend wine fairs in order to drink and not to taste.

However, gestures of tasting are not the only bodily activities involved in the process. First, tasting sometimes more than one hundred different wines requires a conditioning in order to accustom the body to that amount of alcohol (even while spitting, an entire day spent tasting wine can be very tiring). It is also necessary to accustom the mouth and palate to distinguish between the flavours and sensations when they are fatigued.⁴ Second, the body is implied in several other activities, like standing, queuing and facing the producers' stands during a wine fair,⁵ or moving in the cellar while paying attention to oenological machines like pumps and filters, or actually engaging in some bodily performance, such as climbing up the big barrels or vats to taste directly with a pipe or tapping the wine from the tap.

3.2 Mental Activities and Wine Tasting

According Reckwitz, it is important to understand social practices as they relate to mental activities. Wine tasting involves several of these: First of all, the most iconic mental activity — often demonstrated in parody — is recognising and identifying (e.g., flavours, scents, vintages, producers, defects) and attempting to “transform ‘soft’ subjective judgments into ‘hard’ objective descriptions and evaluations” (Shapin, 2016, p. 436; see also Phillips, 2016). Secondly, and clearly related to the previous activity, there is a massive performance of classification that anyone can learn during every tasting session, no matter how concrete the tasting situation in which it happens. This is why I simply report the statements — to illustrate that classification is occurring without making reference to a specific context. Classification happens when someone says, “if it was a premier cru, it would be excellent, but I was expecting more from a grand cru” or “this white wine can hardly be Italian, there’s too much acidity” or “this producer is a traditionalist; the other is a modernist” or “this is a natural wine.” A third mental activity that often emerges during a wine tasting is comparing. For instance, during the tasting sessions I have conducted for *Gambero Rosso*, it was clear that the appreciation of a wine and its marks were linked to its contextualisation within the same DOC, vintage and style. Alternatively, during a selection as a buyer, you simply do not look for “the best wine,” but for the wine that is better than others of the same type. As Silverstein (2016) notes:

3. Fieldnote, 5 April 2014, Villa Favorita: “*This morning I have had access to the exclusive tasting room for importers, separated from the main rooms where the fair is deploying. The difference between the bodily skills of the tasters in the two spaces is striking: no one here risks splashing the others while spitting in the spittoons, as happened before with an enthusiastic girl — who was, I suppose, a little bit drunk — who left my white shirt with two spots. Everyone is mannerly here, tasting almost in silence.*”
4. Navarini (2015) writes about the “thin border line” represented by tasting over 100 wines.
5. Fieldnote, 22 March 2016, Grands Jours de Bourgogne: “*Today, the room is too crowded, especially by the newly rich from the wine, the Chinese importers, who think that their economic power gives them the right to shove in order to taste first. It’s so hard to focus in these conditions.*”

This wine — say, a red one now being tasted — can be comparatively described in relation to others of its point of origin (vineyard, producer, region, etc.) in different years of production; it can be compared to other named wines of its locale; compared to other red wines with its predominant (or exclusive) grape type, no matter the locale of origin; compared to other red wines of other grape types; and so on. (pp. 189–190)

It is very important here to underscore that these activities are “mental” but embodied as a routine, and as a competence demanded by the field, and they could also be part of a habitus developed outside the field.⁶ As Bourdieu (1997) explained while writing about the scholastic disposition, the analytical and reflexive posture is socially constructed, embodied and embedded in trivial routines.

3.3 The Materials of Wine Tasting

Like any other social practice, tasting wine has its foundations in many “things”: having a resource-based role, a device-centric role and an infrastructural role (Shove, 2017). To refrigerate a white wine during a wine tasting (a fair, a competition, a tasting panel or even a meal), for instance, one requires an electric power network (infrastructure) and electricity (resource), while to maintain the temperature, a wine cooler with ice might be necessary. A wine tasting is full of device-centric things: special glasses (no one, in a tasting situation, gives you a wine in a glass without a stem, unless it is specially designed for it), spittoons, barrels, vats, bottles of different shapes, corkscrews, decanters, stoppers, drips, technologies like Coravin or Enomatic, glacettes, tinfoil or other features to cover the bottles for a blind tasting, block notes to fix descriptions or marks, notebooks, laptops, and smartphones and tablets to take pictures or notes. Last but not least, the wine itself is a fundamental object in wine tasting. Hennion and Teil (2004) write that the object, wine, does not contain its effects (its taste). They are constructed by the means through which wine lovers learn to appreciate them. Nonetheless, when — as it happens also in avant-garde art, for example — a “new” object like a natural wine without sulphites (or a Barolo in barrique, in other times) appears on the market, the tasting practice changes because the discursive dispositives applied until the moment before are no longer suitable in a certain respect (think, for instance, about all the visual analysis taking place when facing a very long macerated wine that assumes orange colour but is a white wine). Wine is made by “things” like tannins, sulphites and acids, and those things stand “in front” of the wine taster and react to his/her approach and tasting habits:

You know, I’m no more accustomed to the amount of sulphites that you can find in conventional wines, so, when I’m forced to taste them, I admit that I try to spit them faster than the natural wines. (Interview 22)

3.4 Space and Wine Tasting

Following Schatzki (2002), spatial relations are a crucial element of the social order in which social practices have life. There are many sites in which wine tastings happen; they are very different and can change the practice itself. It is possible to taste at home, in a restaurant/wine bar, in a tasting room tailored for the practice, in a cellar (wide or small, with the related “things” to pay attention to) and at wine fairs (indoor or outdoor, with the related climatic conditions) with many people around or alone while standing in front of the producer. It is also possible to engage in the practice at the office of a wine guide, a consortium or association. As a result, it is possible to taste alone or in group, sitting, standing, in silence or talking, with background music or with a voice making announcements from loudspeakers.

3.5 Background Knowledge and Know-How in Wine Tasting

As Reckwitz (2002) says, two other important elements of a social practice are “a background knowledge in the form of understanding” and “know-how” (p. 249), or, in Schatzki’s (2002) terms, general

6. A person who worked as a wine journalist, wine tasting teacher and wine seller told me, “*I’ve always been a little bit obsessive with my passions and objects of study. When I discovered wine, it was like a fairground, with all these categories to memorise and recognise*” (Interview 4).

understanding, practical understanding and rules. Expert wine tasting requires at least a minimum of technical knowledge about winemaking processes, such as fermentation(s), maceration, disgorgement, etc., and a minimum of technical knowledge regarding the components of wine, like alcohol, acidity, tannins, sugar and so on. In this way, these aspects can be tracked during the tasting process. This also requires a minimum knowledge of wine language in order to understand what the producer means when he or she says that a certain wine is “smooth”, “lively” or “easy to drink” and so on. However, practical understanding and know-how requires knowledge about why people spit wine instead of drink it: not blaming people for making strange noises with the mouth for the purpose of better spreading the wine over the palate which are the correct tasting routines if one has to taste different kinds of wines — i.e., sparkling wines first, than whites, than reds, or, following the burgundy school, reds first because they are more tannic, and so on.⁷ Moreover, tasters have to learn how to act in front of a producer during a fair (facing a stand, saying “do you have any white wine?” or “any bubble?” does not give the impression of being a “practitioner” unless the sentence is preceded by something such as “I am on white wine this morning, than I will come back later for the other wines”).

As an interviewee revealed to me, if someone is not an actual practitioner, the lack of background knowledge is clear in the eye of practitioners:

You know, I can't stand those open events in which you can clearly distinguish a professional taster and most of all those who are involved in wine business, from wine lovers, or worst, simple drinkers. It's a question of how people speak, how they act with the glass or how they interact with me, I could even bet on who is who... (Interview 52, wine producer)

3.6 Emotions and Motivational Knowledge in Wine Tasting

Both Reckwitz (2002) and Schatzki (2002) note the importance of emotions and motivational knowledge, or the teleoaffective structure of social practices. This is a very important point for the understanding of expert wine tasting, and — as I will further explore subsequently — one of the key issues in Bourdieu's social fields theory.

Emotion is the main ingredient of the wine world because of the involvement of wine in the affective life, resulting in the relationships between drinking and group belonging, family connections and the sentimental sphere (see Mora & Moscarola, 2010; Groves, Charters, & Reynolds, 2000), and so during a wine tasting, it is frequent that one hears sentences like “this wine is emotional” or “I'm so excited, this is my first bottle of X,” etc. Furthermore, tasters face a cognitive bias when drinking a famous high-priced wine if they know this information beforehand. Siegrist and Cousin (2009) as well as Willer, Kuwabara and Macy, (2009) have shown that during a public wine tasting, there is a pressure to conform, which can lead some to even prefer a wine with added vinegar. Nonetheless, during a wine tasting, there are other emotional elements we have to consider besides the cognitive aspects, which are only attributes of practitioners and their position in the wine field. For one, what happens during a wine tasting depends on the symbolic capital of tasters, producers and wines, as I can illustrate with this fieldnote taken during the tasting panel of *Gambero Rosso* during the summer of 2016:

During the morning panel, we only knew we were tasting Verdicchio di Matelica, vintage 2015, but the tasting was blinded, with an employee of the Istituto di Tutela Vini Marchigiani who was in charge of covering bottles with tinfoil and then pouring them at random, only respecting the homogeneity of PDO and vintage. We (the four of us) recorded all the marks on a single file, taking notes on our laptop, and only after having tasted all the wines from a single PDO we unveiled the bottles and wrote the wines' names. I have discovered during the past two days that after the regular session, the best bottles or the bottles that gave rise to doubts were re-tasted, sometimes still covered and sometimes not. The president of the tasting session — a part-time journalist and well known as an ambassador of Marche's wine — has led this panel over the last 10 years and after that, a bottle had bad remarks from three out of four of us. All the comments said “guys, let's give this a chance,

7. For an ethnographic account of a novice attending a wine festival, see Vannini et al. (2010).

I think it's Collestefano [one of the best Verdicchio di Matelica, at least for the *Gambero Rosso* guide over the last years], maybe this is a bad bottle or it needs to breathe." During the afternoon, with a fresh palate after lunch break, we tasted the bottle again, raising its marks. (Fieldnote, 17 July 2016)

What I described before was only possible because of the symbolic capital owned by: a) the commission president, who intimidates the other tasters, pushing them to doubt their previous judgments, and by: b) Collestefano, a prizewinning, prestigious producer who can generate anxiety, especially in a taster wanting to impress the president.⁸ Several other examples could be referenced in order to illuminate the relations between emotions and symbolic capital during a wine tasting. For instance, while a blind tasting is taking place, the comment of a highly esteemed taster can easily move the other tasters, most of all novices to the practice, towards some descriptors or evaluation, or to solicit more attention to some aspects of wine over others. See the case that follows:

I'm participating in a wine tasting conducted by Sandro Sangiorgi, one of the most, if not THE most, influential wine writer and teacher in Italy, about Chronos and Kairos in wines. He asks: "Which of the wine best expresses the perfect tasting moment?" A woman indicates, shyly, a white wine with a strong aromatic impact. Sangiorgi patronises her, making some ironic comment about her predilection toward the nose instead of the mouth, and all the other tasters start to appreciate out loud other wines than the previous. (Fieldnote, 23/02/2015)

Besides emotions, motivational knowledge can also alter the performance itself. What someone wants or what someone is expecting from a tasting session leads to their way of tasting. For instance, if someone must evaluate — as mentioned before — wines from the same typology with the purpose of writing a report for a wine guide, he/she will try to create a ranking based on marks and briefly describe the wines. If a sommelier, during a wine tasting, is looking for some new wine to insert into his restaurant's wine list, the first thing he will focus on will be the pairing potential:

You know, when I'm selecting a new wine, I'm not so much interested in a full understanding: I've got in mind maybe some specific dishes, and I know already that I'll need perhaps an orange wine with a good aromaticity, a little bit of tannin to pair with a certain fattiness, and so on... Only later, when the wine comes to the restaurant, I will focus on full understanding and descriptors in order to tell a story to the clients. (Interview 13, 1 Michelin Star Sommelier)

If the selection is made by a buyer for a distribution, the performance is different in another manner:

I'm reflecting on the difference between my first time here at Sorgente del Vino, when I was only a wine lover, and now, after eight editions, tasting here looking for the catalogue for another wine from Friuli and one from Puglia that is missing in the catalogue. The first time, I used to listen for many minutes to the stories of producers, fascinated to discover details and also some "wine gossip", or simply intrigued by the sociological angle of their trajectories in the wine field, and inevitably I was conditioned and influenced — for the bad and the good — to taste their wines. Today, I was completely focused on wine, and in a mood to ask to myself questions like, "How is this wine in the style of the rest of the catalogue?," paying the maximum attention to the salinity of wine, the tension and energy on the mouth, with a right cleanliness on the nose. If something of this was lacking, I moved away very quickly. (Fieldnote, 11 February 2019)

Or, we can see another way of practicing during a wine course. One example is a person who leads the tasting session while assuming a pedagogical approach in order to let the novices learn the proper techniques, conducting a work of setting, or "fine tuning," of the object (Giglioli & Fele, 2016).

8. Of course, this is also the result of a specific cultural capital embodied in the president and constructed during previous tasting experiences, which made him able to recognise Collestefano (from a covered bottle).

4 Language and Systems of Meanings as Elements of Wine Tasting

If the discursive side of social practices is just an element among others, it nonetheless has a peculiar role in wine tasting. First off, as mentioned previous, wine language is something upon which several authors have focused, stressing how a wine tasting “can be properly understood as the best circumstance in which a subject, in our society, contends with the vocabulary available to describe what he perceives, or even to manage to perceive what he learns to describe” (Navarini, 2016). Next, much of the literature has emphasised the role of wine critics (Teil, 2001; Hay, 2010) and the “oenological signature” as factors of symbolic capital (see earlier) (Chauvin, 2010), most recently the transformation of wine journalism (Rossel, Schenk, & Eppler, 2016) and the influence of wine magazines on wine tast(e)ing (Smith Maguire, 2018). Since the impact of Robert Parker on the wine field, giving marks (not necessarily in hundredths like Parker does) has become a common activity in wine tasting, even when marks do not have any public resonance, as during a dinner with wine-loving friends. Lastly, tasting results are often variegated in descriptions and in creating/using synesthesia, metaphors, hyperboles and other rhetorical devices. So, the tasting note becomes a verbal component of a normative cultural schema for experiencing and enjoying the aesthetic object, constructing “that aesthetic object as one that will, in phases, reveal its dimensionalised qualia to the experienced sensorium of someone who purports to construe it, to interpret it with appropriate descriptive verbalisation (whether thought to oneself or uttered or written)” (Silverstein, 2016, p. 194). Hennion and Teil (2004, p. 522) describe this process: “As the domain gains in generality, it is visibly occupied by critics, guides, prescriptions, norms; the taste is made by telling it and is said by making it. Historically, this reflexivity tends to take the more classic written form, and, in a very characteristic way, each domain gives birth to a specific vocabulary.”

Yet, things are more complex in a dimension that involves issues turning around to the matter of position-taking in the field. Let us pay attention to this phrase, which appeared in a Facebook post from the “Movimento di Avanguardia Enoica”:

What if tasting, instead of simply drinking, would represent an intolerable act of superiority and a lack of respect toward the wine producer and his product, as an expression of nature? (EKW, Movimento di Avanguardia Enoica, post on FB 26 June 2018)

The entire movement of “natural wine” (Black, 2013; Cohen, 2013) — within which the association mentioned before positions itself — is a discourse that is dictating new tasting practices. First, much of what have been considered “defects”, like Brett, volatile acidity, oxidation, murkiness and so on, are now enjoyed, sought after or not noticed. Second, all the language of natural wines is pushing towards a posture that highlights the drinkable aspect of wine: “glu glu wines”, “drinking buckets of that wine” and so on. Moreover, if since the dawn of wine tasting practices, the olfactory stage had a key role, lately — as a reaction to almost three decades of “wines for contests,” very refined in the cellar with many oenological additives — it is questioned by important tasters and journalists (see Rigaux, 2012; Rigaux & Sangiorgi, 2017), and already in some fairs, there are “true believers” of this new tasting practice explaining how wrong one is to smell wine.⁹ Therefore, we can say with Silverstein (2016) that:

One is then not only characterising the aesthetic object but also, in effect, placing or locating oneself socially with respect to a “community of practice,” those “in the know” — or not — about matters oenological within the complex intersection of institutionalised practices that bring the aesthetic object and the judging aesthete together. (p. 197)

9. “ I’m standing opposite to the stand of Cavaliera, a well-reputed producer of ancestral sparkling wines, discussing how he makes the ‘degorgement’, smelling the wine while feeling a little distracted, without paying attention to my gesture. Suddenly, a guy who seems to have familiarity with the producer starts asking me if I know of the ‘geosensorial tasting’. When I answer affirmatively, he scolds me with a professorial attitude: ‘So, don’t you know you have the first taste?’ When I ask him (already expecting the answer) if he is attending the fair as a professional, he tells me that he is a banker, but he took a course from Sandro Sangiorgi.” (Fieldnote, 25 November 2017, Mercato Fivi)

5 Variations in Tasting Wine Practices and Their Intersection with Other Practices

Recently, Hui (2017) has stressed the importance of considering variations in a nexus of practices, moving forward from just focusing on the variations between performances, and instead on the constituent elements of a performance. It is interesting to reflect on how different practices can change other practices, forming a circular relationship. Let us review again the issues brought about by natural wines. Making natural wine is a practice that has transformed its final product by a different use of things (e.g., agronomics products, technologies, amphores), meanings (e.g., redefining the entire category of “defects,” defining other wines as “industrials” or “conventionals”) and skills (biodynamics treatments, for instance), and doing so has also modified the wine tasting practice: the natural wine fairs are very often more similar to a feast than to a professional tasting, and we already examined some changes in tasting techniques. This is also applicable vice versa: if during a tasting, it is more and more important to understand the production method and discover if a wine is without sulphites, while “defects” become a factor of enjoyment, producers (some of them, in a way that will be addressed elsewhere in a social field theoretical frame) will be forced to adopt winemaking practices at more and more extremes. As a consequence, wine promotion, too, is changing, encouraging distributors, agents and journalists to concentrate on the process of winemaking instead of its results.

It has been highlighted how the spread of tasting posture and its language — according to what could be called a “vinification process” — has generated a similar attitude towards the most varied of products, from meat, judged and described based on the marbling, to gin or olive oil, cheese and so on, an attitude that is naturally related to distinctive processes, as studied by many after Bourdieu:

The institutional world of wine as a node has itself become a center point of “emanation” of ways of constructing prestige throughout a whole world of construable comestibles, edible and potable commodities that are brought into the stratified precincts in which wine has long had a social life (Silverstein, 2016, p. 205).

Moreover, we can see another level of intersection of the practices, involving scientific institutions, with the practice of scientific research providing new words and frames to the tasting practice, or the practice of distribution and selling, forging as a matter of marketing the new slogan as “the important thing is minerality” or “saltiness”, or in an intersection with wellness practices, “digestibility,” and so on:

At the culminating moment of consumption, the tasting and evaluation of the experience, the wine consumer is poised in a place where all these institutions have intersected with distinctive shaping influences (Silverstein, 2016, p. 203).

Last, the trajectories of practitioners are important for understanding the kinds of tasters people can be, moving from other practices and melting some elements of one into the other. For instance, one of our interviewees — nowadays one of the most famous and well-reputed wine journalists — before dedicating himself to wine was a sports journalist. That led him to approach wine tasting as storytelling, even when he guided a technical tasting. Or, digging in to my own experience, when I taste wine, I activate resources that are part of my sociological habitus, like comparing, categorising and creating taxonomies, and I tend less to create innovative descriptors for a wine, whereas when I participated in a didactical tasting panel led by a famous performer, all attention was focused on the olfactory analysis.

6 Conclusions

After having emphasised the fruitfulness of approaching expert wine tasting in a practice theory framework, I would like to recap where it would be useful by igniting it with some Bourdieusian concepts, which are crucial to comprehending various features of this practice and its elements.

For one, it is not possible to give an account of the transformations of the wine tasting practice without referring to field theory, just as we saw in several places in this article. For example, the possibility of

introducing new discursive elements — as wine language, or new categories like “natural”, “artisanal”, “biodinamico”, “glu glu”, etc. — depends on which position people occupy in the wine field and on questions of (specific and general) cultural, economic and symbolic capital; or the influence of a single performance — like orienting the taste, or the pace of tasting or the frame of tasting (blinded? uncovered?) — depends again on the position people occupy in the field. Conversely, when we reflect on the intersection of practices, we also have to consider the relationship between the field or subfield involved in this intersection. For instance, we could analyse the weight and give the historical period in which wine critics, oenologists or wine distributors oriented the intertwining of wine production and wine tasting. Finally, motivational knowledge depends almost entirely on position occupied in the field.

Second, we cannot prescind from a practitioner’s habitus (also in its bodily aspects) and social trajectories their way of practice and their relationship with the various elements of practice. For instance, a professional taster in another field (e.g., a cook, an olive oil taster, a perfumer) would bring their dispositions with him/her to the wine tasting, or a very cultivated person would have more ease in creating descriptors, especially synesthesia (provided that the person previously experienced the sensations described). However, once again, this is a question of social trajectory.¹⁰ Alternatively, like I mentioned earlier, one can bring a taxonomic attitude to wine tasting. So, the learning process that “builds” a wine taster is a practical issue, where the shared knowledge is created in interactions, but as Alkemeyer & Buschmann (2017) notice, the experience of practice “not only depends on a participant’s *actual* bodily and mental situatedness in a practice, but is also informed by a ‘personal situatedness’ that is defined by his or her position in the social space of a given society and in the trajectory of his or her life” (p. 15).

References

- Alkemeyer, T., & Buschmann, N. (2016). Learning in and across Practices: Enablement as Subjectivation. In A. Hui, T. Schatzki, & E. Shove (Eds.), *The Nexus of Practices. Connections, Constellations, Practitioners* (pp. 8–23). New York: Routledge.
- Black, R.E. (2013). *Vino Naturale: Tensions between Nature and Technology in the Glass*. In R.E. Black & R.C. Ulin (Eds.), *Wine and Culture. Vineyard to Glass*. London: Bloomsbury.
- Bourdieu, P. (1992). *Risposte. Per Un’Antropologia Riflessiva*. Torino: Bollati Boringhieri.
- Bourdieu, P. (1997). *Meditazioni Pascaliane*. Milano: Feltrinelli.
- Chauvin, P.-M. (2010). La signature oenologique: Frontières et transferts de réputation chez les consultants vitivinicoles. *Sociologie du travail*, 52(4), 461–479. <https://doi.org/10.1016/j.soctra.2010.09.003>
- Cohen, P. (2013). The Artifice of Natural Wine: Jules Chauvet and the Reinvention of Vinification in Postwar France. In R.E. Black & R.C. Ulin (Eds.), *Wine and Culture. Vineyard to Glass*. London: Bloomsbury.
- Demossier, M. (2004). Contemporary Lifestyles: The Case of Wine. In D. Sloan (Ed.), *Culinary Taste: Consumer Behaviour in the International Restaurant Sector*. Oxford: Elsevier Butterworth-Heinemann.
- Giglioli, P.P. & Fele, G. (2016). Il Sapere del Sommelier. Verso un’Etnografia della Degustazione. *Etnografia e Ricerca Qualitativa*, 1, 53–72. <https://doi.org/10.3240/83056>
- Ginev, D. (2019). Conceptualizing the Human Body within Practice Theory. *Social Science Information*, 58(1), 1–20. <https://doi.org/10.1177/0539018419836847>

10. For instance, I remember that while I was giving a lesson in wine tasting to young students who never had this experience, one of them, tasting for the first time a gewurztraminer, immediately referred to litchi, instead of the more usual — at least in Italy, in my experience — rose. When I asked how she found so quickly such a descriptor, she told me that her parents were from the south of China, where this fruit is commonly consumed.

- Groves, R., Charters, S., & Reynolds, C. (2000). Imbibing, Inscribing, Integrating and Imparting: A Taxonomy of Wine Consumption Practices. *Journal of Wine Research*, 11(3), 209–222. <https://doi.org/10.1080/713684235>
- Hartmann, M. (2000). Class-Specific Habitus and the Social Reproduction of the Business Elite in Germany and France. *The Sociological Review*, 48(2), 241–261. <https://doi.org/10.1111/1467-954x.00214>
- Hay, C. (2010). The Political Economy of Price and Status Formation in the Bordeaux *en primeur* Market: The Role of Wine Critics as Rating Agencies. *Socio-Economic Review*, 8(4), 685–707. <https://doi.org/10.1093/ser/mwq007>
- Hennion, A. (2007). Those Things that Hold Us Together. *Cultural Sociology*, 1(1), 96–114. <https://doi.org/10.1177/1749975507073923>
- Hennion, A., & Teil, G. (2004). Le goût du vin: pour une sociologie de l'attention. In V. Nahoum-Grappe & O. Vincent (Eds.), *Le goût des belles choses*. Paris: Éditions de la Maison des Sciences de l'Homme.
- Howland, P.J. (2013). Distinction by Proxy: The Democratization of Fine Wine. *Journal of Sociology*, 49(2–3), 325–340. <https://doi.org/10.1177/1440783313481746>
- Hui, A. (2017). Variation and the Intersection of Practices. In A. Hui, T. Schatzki, & E. Shove (Eds.), *The Nexus of Practices. Connections, Constellations, Practitioners* (pp. 52–57). New York: Routledge.
- Hui, A., Schatzki, T., & Shove, E. (Eds.) (2017). *The Nexus of Practice. Connections, Constellations, Practitioners*. New York: Routledge.
- Jamerson, H. (2009). Intoxicators, Educators, and Gatekeepers: The Enactment of Symbolic Boundaries in Napa Valley Wineries. *Poetics*, 37(4), 383–398. <https://doi.org/10.1016/j.poetic.2009.06.001>
- Kendall, D. (2008). *Members Only: Elite Clubs and the Process of Exclusion*. Lanham: Rowan and Littlefield.
- Lamont, M., & Molnar, V. (2002). The Study of Boundaries in the Social Sciences. *Annual Review of Sociology*, 28(1), 167–195. <https://doi.org/10.1146/annurev.soc.28.110601.141107>
- Lehrer, A. (2009). *Wine and Conversation*. New York: Oxford University Press.
- Mora, P., & Moscarola, J. (2010). Representations of the Emotions Associated with a Wine Purchasing or Consumption Experience. *International Journal of Consumer Studies*, 34(6), 674–683. <https://doi.org/10.1111/j.1470-6431.2010.00900.x>
- Navarini, G. (2015). *I Mondi del Vino*. Bologna: Il Mulino.
- Navarini, G. (2016). Sinestesia e Senso Pratico della Descrizione. Come Fanno gli Assaggiatori di Vino a Dire Quello che Dicono. *Etnografia e Ricerca Qualitativa*, 9(1), 73–92. <https://doi.org/10.3240/83057>
- Overton, J., & Murray, W.E. (2013). Class in a Glass: Capital, Neoliberalism and Social Space in the Global Wine Industry. *Antipode*, 45(3), 702–718. <https://doi.org/10.1111/j.1467-8330.2012.01042.x>
- Phillips, C.J. (2016). The Taste Machine: Sense, Subjectivity, and Statistics in the California Wine World. *Social Studies of Science*, 46(3), 461–481. <https://doi.org/10.1177/0306312716651504>
- Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243–263. <https://doi.org/10.1177/13684310222225432>
- Rigaux, J. (2012). *La degustation geosensorielle*. Clemencey: Terres en Vues.
- Rigaux, J., & Sangiorgi, S. (2017). *Il Vino Capovolto*. Roma: Porthos.

- Rössel, J., Schenk, P., & Eppler, D. (2016). The Emergence of Authentic Products: The Transformation of Wine Journalism in Germany, 1947–2008. *Journal of Consumer Culture*, 18(3), 1–21. <https://doi.org/10.1177/1469540516668226>
- Schatzki, T. (2002). *The Site of the Social: A Philosophical Account of the Constitution of Social Life and Change*. University Park, Pennsylvania State University Press.
- Schwarz, O. (2013). Bending Forward, One Step Backward: On the Sociology of Tasting Techniques. *Cultural Sociology*, 7(4), 415–430. <https://doi.org/10.1177/1749975513480957>
- Shapin, S. (2016). A Taste of Science: Making the Subjective Objective in the California Wine World. *Social Studies of Science*, 46(3), 436–460. <https://doi.org/10.1177/0306312716651346>
- Sherman, D. (2011). The Production of Distinctions: Class, Gender, and Taste Work in the Lifestyle Management Industry. *Qualitative Sociology*, 34, 201–219. <https://doi.org/10.1007/s1133-010-9178-5>
- Shove, E. (2017). Matters of Practice. In A. Hui, T. Schatzki, & E. Shove (Eds.), *The Nexus of Practice. Connections, Constellations, Practitioners* (pp. 155–168). New York: Routledge.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice. Everyday Life and How It Changes*. London: Sage.
- Silverstein, M. (2016). Semiotic Vinification and the Scaling of Taste. In E. Summerson Carr, M. Lempert (Eds.), *Scale. Discourses and Dimensions of Social Life* (pp. 185–212). Oakland: University of California Press.
- Siegrist, M., & Cousin, M.-E. (2009). Expectations Influence Sensory Experience in a Wine Tasting. *Appetite*, 52(3), 762–765. <https://doi.org/10.1016/j.appet.2009.02.002>
- Smith Maguire, J. (2018). The Taste for the Particular: A Logic of Discernment in an Age of Omnivorousness. *Journal of Consumer Culture*, 18(1), 3–20. <https://doi.org/10.1177/1469540516634416>
- Teil, G. (2001). La production du jugement esthétique sur les vins par la critique vinicole. *Sociologie du travail*, 43(1), 67–89. [https://doi.org/10.1016/S0038-0296\(01\)01122-0](https://doi.org/10.1016/S0038-0296(01)01122-0)
- Vannini, P., Ahluwalia-Lopez, G., Waskul, D., & Gottschalk, S. (2010). Performing Taste at Wine Festivals: A Somatic Layered Account of Material Culture. *Qualitative Inquiry*, 16(5), 378–396. <https://doi.org/10.1177/1077800410366939>
- Wacquant, L. (2014). Putting Habitus in Its Place: Rejoinder to the Symposium. *Body and Society*, 20(2), 118–139. <https://doi.org/10.1177/1357034X14530845>
- Wacquant, L. (2015). For a Sociology of Flesh and Blood. *Qualitative Sociology*, 38, 1–11. <https://doi.org/10.1007/s11333-014-9291-y>
- Wallenborn, G. (2013). Extended Bodies and the Geometry of Practices. In E. Shove & N. Spurling (Eds.), *Sustainable Practices. Social Theory and Climate Change* (pp. 146–164). London & New York: Routledge.
- Warde, A. (2014). After Taste: Culture, Consumption and Theories of Practice. *Journal of Consumer Culture*, 14(3), pp. 279–303. <https://doi.org/10.1177/1469540514547828>
- Willer, R., Kuwabara, K., & Macy, M.W. (2009). The False Enforcement of Unpopular Norms. *American Journal of Sociology*, 115(2), 451–490. <https://doi.org/10.1086/599250>

Mario de Benedittis: University of Milan (Italy)

🌐 <http://orcid.org/0000-0003-4196-0895>

✉ mario.debenedittis@unimi.it; 🌐 <https://www.unimi.it/it/ugov/person/mario-debenedittis>

Mario de Benedittis teaches Sociology of cultural processes and Sociology of communications. His interests mainly focus on: 1) the sociology of cultural production, especially on the sociology of philosophy, the sociology of fashion, the sociology of music and — in the last years —, the sociology of wine; 2) social theory, especially on the implications of the dispositional approach, practice theories, field theory. In addition to various articles, he wrote *I Nuovi Ceti Popolari* (with M. Magatti, Feltrinelli, 2007) and *Sociologia della Cultura* (Laterza, 2013) and is now working on a book on the sociology of wine.

Automatizing Green Practices? The Analysis of Reverse Vending Machines as a Re-contamination of Theories of Practices

Paolo Giardullo*

Submitted: May 7, 2019 – Accepted: December 8, 2019 – Published: December 31, 2019

Abstract

The analysis I bring to the present symposium about contamination of practice theories concentrates on potential reconfiguration of domestic waste management as social practice through the installation of Reverse Vending Machines (RVMs). Being them designed to collect plastic bottles and caps assigning a reward to whom bestows them, this research concentrates on RVMs functioning and the re-composition of everyday practices they are supposed to bring. The analysis re-contaminates theories of practices encompassing consumptions studies, sustainability and Actor-Network Theory's concepts within the broader framework of environmental sociology. These three scholarships already contaminated theories of practices and contributed sensibly to strengthen their application. I will review the essence of these contributions and, moving from that, I will further explore the agency of objects within everyday social practices relying on the case study of RVMs. Through media analysis further informed by fieldnotes about direct observation and informal interviews, I will reconstruct the RVM rationale highlighting the connections with material arrangements of everyday practices.

Keywords: Theories of social practices; Environmental sociology; Recycling; Domestic waste management; Reverse vending machine..

1 Introduction

The Reverse Vending Machine (RVM) is located under a colonnade, close to a bank, in a pedestrian area. The street is an elegant one. It encourages people to take a stroll enjoying the lights of the shop windows and to meet friends in cafés. Since I had to walk through most of the town centre bringing my bag with a dozen of polyethylene terephthalate (PET) bottles, I felt a bit uncomfortable. However here I am. The machine is a huge white parallelepiped made of two blocks with three small doors and a little round hole. Each small

* University of Padova (Italy); ✉ paolo.giardullo@unipd.it;  <https://orcid.org/0000-0002-2560-9088>

door hides a hole: two are for bestowing bottles and one for aluminium cans, while the littlest one is for plastic caps. There is also a screen showing messages about: i) how cans and bottles are processed once collected by the RVM; ii) the advantages for me (the user); iii) the benefits for environment and iv) for the local community. It seems that anybody can positively profit from this system. With another message, the screen underlines the small reward that I can get per each bottle I deliver and I can use in the shops in the city centre immediately. This means to get money from waste to be re-infused into local economy. It sounds like being part of a circular economy.

(Extract #1, Ethnographic notes from fieldwork)

The extract above briefly describes the first direct contact I had with an RVM. The machine was dedicated to a reward system for recycling plastic bottles. By approaching it, I could directly explore an interesting attempt to promote recycling of plastic bottles through a shorter path in line with the declared purpose of fostering circular economy. Starting from this, the analysis I bring to the present symposium about contamination of practice theories considers the potential reconfiguration of domestic waste management as social practice through the installation of RVMs. In particular I concentrated on the socio-material relationships shaped through the interaction between a dedicated technology to promoting a specific way to perform domestic waste management of recycling and every day's life arrangements. It means to look at how social relationships, routines and technological objects shape each other. This means to apply a symmetrical perspective, thus not assigning a prominent role to technology (refusing a technological determinism) nor to social factors (refusing social determinism). This ontological posture is coherent with practice theory approach that integrates Science and Technology Studies (STS) legacy, as it will be described later.

Equipped with these lenses I will deal with theories of practices from the perspective of consumptions studies about sustainability within the broader framework of environmental sociology. Actually, these scholarships already contaminated the debate about theories of practices. Indeed, they sensibly contributed to the development of the second phase of theories of practice (Postill, 2010). They brought lights on social processes about sustainable consumption, a key environmental issue, from an alternative point of view both empirically and theoretically (Warde, 2014). Theories of practice are currently adopted by scholars in several research areas (Hui, Schatzki & Shove, 2017) but it is recognised that their contamination with sustainable consumptions strengthened their application also echoing beyond this debate (Warde, 2014). I will consider these contributions and, moving from that, I will further explore the agency of objects within everyday social practices for sustainable consumption through the case study of RVMs.

Presently, to split different components of waste in order to bestow each material to the proper recycling path need some domestic arrangements that encompass space, duties and timing (Watson, 2012). A combination of these elements, as it will be described in the coming paragraphs, is necessary to process and consequently re-use waste as new raw materials. Indeed, looking at the representation made by producers of these machines. RVMs are meant to intervene in this process as promoting agents of a more virtuous recycling system by shortening the regular path envisaged by urban waste management system (see further, fig. 2). RVMs are not mere collecting points. Rather they should be there appositely to mediate the interaction between recycling facilities and citizens. In doing this, they are meant to enact a re-use path for plastic as raw-material thus driving towards a more sustainable waste cycle. This should promote two features of circular economy: i) a more efficient way to recycle and ii) value for waste. Indeed, RVMs receive waste giving back a reward for those who bestow it. The reward can be money, vouchers or discount coupons for shopping. The system encouraged through such an economic incentivisation shares some analogies with the *Pfand System* in Germany but, actually, it differs a lot. I will be back on this later while describing the principle of what in Italian is called "*riciclo incentivante*," a reward scheme for recycling.

In this regard, I will also examine the role of incentives that represent a key feature for RVMs. For this reason I will go through a dedicated discussion about behaviour, practice and pro-environmental choices recalling some key criticisms toward the linkages between attitudes, behaviour and choice, called ABC model by Shove (2010), and further developed by scholars into sustainable consumption (among

the many Hargreaves, 2011; Hargreaves, Longhurst & Seyfang, 2013; Shove & Spurling, 2013). More recently it finds itself promoted by Blue, Shove, Carmona and Kelly (2016) even for health policy.

This discussion allows to contextualize the contamination of theories of practice with environmental sociology terms, particularly concentrating on the sustainable practices.

The paper will thus delve into the case of RVMs in northern Italy addressing these elements (a) through the reconstruction of producers and installers' point of view and (b) the perspective of the machine itself or the program of action (Akrich & Latour, 1992; Latour, 1992) that includes the delegation of specific tasks connected with domestic waste management. As it will be shown later, such a delegation goes beyond the simple task of sorting waste implying also other kinds of arrangements, and this highlights the nexus of practices.

For this contribution I connected two sources of data:

- selected newspaper articles as well as on other press and media releases;
- an ethnography of RVMs' use in the specific context of Veneto, North-Eastern part of Italy.

I first looked for newspaper articles interrogating TIPS dataset,¹ a dedicated media monitoring project. This way, I could realize that the issue is not covered by most Italian newspapers, since I collected only four articles. I thus considered other sources such as websites of RVM producers and news-blogs enlarging the corpus up to 72 documents; the documents included local newspapers and press agencies that relaunched local initiatives. Such an heterogeneous set of sources and documents was retrieved querying Google, websites of RVMs' producers and those of local campaigns of rewards for recycling. I analysed the corpus looking for references to RVMs' design (functioning, litter to be bestowed to them, rewards, connection with municipalities) and location. In this way I could reconstruct the general narrative as promoted by producers as reverberated on the media about the rationale of RVMs' installation. Furthermore, in collecting articles as well as other media releases ranging from 2014 to early 2019, I came across several news about recent instalments of RVMs: there are about 450 installed machines all around the country and a considerable share of them is in Veneto.² I took advantage of this to set up fieldwork in two different locations in the Veneto plain. Being the fieldwork in the same region I opted to compare two RVMs considering their setting as a main comparing criterium: one, as described in the opening extract from fieldnotes, is installed in a town centre and a second one is located at the entrance of a shopping mall. This allowed me to compare the same functioning in two settings of consumptions which, may be inscribed into different social practices.

Fieldwork took place in February 2019 and included direct observation and informal interviewing with users and responsables for installing and maintenances of RVMs. I was inspired by the idea of self-ethnography; in Alvesson's perspective it is a research about a setting to which researcher "has natural access, [and] is an active participant, more or less on equal terms with other participants." (2003, p. 174). In particular, as it will be clear from extracts proposed below, I followed the requirements of RVM in order to properly use it. Hence, I could consider within my fieldwork both the delegations and the scripts that shape specifically the bundles of materially mediated arrangements that social practices of domestic waste management consist.

1. Technoscientific Issue in the Public Sphere (TIPS) is a running project about technoscience in the media: it collects and indexes contents several daily newspapers. For more details see Giardullo and Lorenzet (2016).

2. According to the web site of Wise society, almost two thirds of RVMs are installed in Northern part of Italy. 20.15% is located in Veneto <https://wisesociety.it/ambiente-e-scienza/riciclo-incentivante-economia-circolare-rifiuti/> (Last accessed 26 April 2019). Although these are not official data, we can have an idea of the geographical distribution across the country. Some other more recent press releases hint that the actual number of RVMs is presently higher in Italy or, at least, it is likely to increase sensibly. https://www.adnkronos.com/sostenibilita/best-practices/2019/01/17/riciclo-bottiglie-pet-coripet-oratutta-filiera_CzKBCTrPkm5kzr4ZOL3DHP.html (Last accessed 27 April 2019).

2 Domestic Waste Management: Between Behaviour and Practice

Sorting waste is a profoundly mundane activity for households and requires a certain effort (Watson, 2012). In a short autobiographic novel, *La poubelle agréée*³ (1993), Italo Calvino described his duty within the broader household domestic routine, the only one is allowed to him by his family: to take out the trash. Such a task makes him feel useful to domestic activities since, as he declares, he is not into other tasks of daily routine contributing to reproductive labour.

Furthermore, Calvino masterfully emphasizes that taking out the trash bin full of waste connects him — and his family as well — to larger processes that contribute to the social order. Knowing how to bestow properly trash to the waste management systems entails to be in harmony with local government requirements — the novel takes place in Paris — using a shared standard for bins (the poubelle agréée, see note 3) to be emptied by garbage collectors. At the same time collecting waste in that bin assures order in the kitchen and, as Calvino admits, within his family. Indeed, to fill the bin is a specific task that falls within his competence. This example from the literature — but not fiction — is useful to further recall us how domestic waste management is inherently a social practice. It finds itself in between public governance and private management since it is not only an activity that frees an household from its own waste rather, if properly performed according to the authority for waste management, further ensure a sanitized and harmonic way of living as well as reducing environmental impact of our activities (Martin, Williams, & Clark, 2006). As more recently confirmed, a tidy and well-lit place where to throw wastes shows the robustness of a well-functioning waste management system (Glad 2018).

Being informed by this we can read this extract from fieldnotes:

I have always sorted my waste in order to obtain at least four different kinds of litter. According to my municipality, and more precisely to the waste management facilities provided in my neighbourhood, I can consider plastic, cans (i.e. aluminium) and glass as the same kind of waste (1); paper, cardboard and food packages produced by Tetra-Pak are another kind (2); the same applies for organic waste (3) and non-recyclable waste (4). Each of them is expected to follow a specific trajectory: (1), (2) and (3) will be routed to dedicated recycling processes. For such reason it is required to me, and to my fellow citizens as well, to organize and shape appositely domestic routines and spaces. Rather than use a single bin I am asked to sort and to split different components of the same package. The four kinds of waste require a specific bin each; they lay in an equipped corner of the kitchen, patiently waiting to be emptied in dedicated garbage containers located down in the street.
(Extract #2, Ethnographic notes from fieldwork)

We can realize that the routine of taking out the trash consists of at least three elements. First, to know criteria to be applied for sorting out waste (competence); second, to understand that sorting waste contributes to keep our dwell clean, to safeguard public decency and finally to limit our environmental footprint (meanings); third the place and the room appositely equipped with proper bins to perform such activity (material arrangement). According to Shove and colleagues (2012), these three elements are enough to define it as a social practice. Nonetheless, as many other activities connected to consumption, typically, domestic waste management is framed through the lens of behavioural theories. Not only scholars investigate the value of social norms, peer pressure and the analysis of attitudes as motivations (Cecere, Mancinelli & Mazzanti, 2014) but even public campaigns often tend to promote virtuous behaviour as a desirable side of human conduct. Shove (2010) provocatively synthesised this frame about social change toward sustainable consumption as *ABC model*. It develops through the stages: since the current patterns of consumption revealed to be a threat for the environment and thus for human beings, then they must be changed. Changes may be obtained intervening on the following scheme: “[...] values and attitudes (the A), which are believed to drive the kinds of behaviour (the B) that individuals choose (the C) to adopt.” (*Ibidem*, p. 1274). This is a well-known and debated topic within the studies of consumption, especially in relation to the issue of sustainable consumption (Warde, 2014; Spaargaren, 2003

3. As translated in the English version of the novel it means “pleasing dustbin, something approved and acceptable (with the implication: approved by the prefectorial regulations [...] thus funding the basis of our social contract and of the expediences of good living).” (pp. 97–98)

& 2013). Indeed, theories of practice addressed directly such a topic by refusing it. Indeed, according to Warde (2014) theories of practices emerged as a reaction towards two major limits of the study of consumption such as the models of individual choice and cultural analysis. This emerged with particular emphasis in understanding the root causes for environmental degradation lying in every day's life activities as well as the strategies to limit household's impact on natural resources through more sustainable consumption. This is what can be considered a proper contamination of theories of practices promoted by a specific debate within environmental sociology.

Indeed, scholars interested in sustainability issues, as in relation to climate change for instance, especially from early 2000s onwards, were disappointed with explanatory social factors of dominant models of consumption that turned to be environmentally unsustainable. Indeed, environmental sociology inscribed consumption within — at least — three broad theoretical traditions (Spaargaren & Mol, 2011). We can first concentrate on the neo-marxist perspective that coherently with the study of capitalist production systems (Schnaiberg, 1980) propose a harsh critique toward dominant logic that promote unsustainable forms of consumption for ensuring economic profit to capital; critical consumption, in order to limit environmental externalities as well as the choice to limit consumption are two strategies to cope with the ambiguities of contemporary affluent society. Unfortunately, the same deepness of analysis applied in the study of socio-economic structural basis of capitalism is not equally applied for the processes of consumption that still contribute to perpetrate unsustainable consumption (Spaargaren & Mol, 2011). A more refined attempt to understand consumption choices is brought by risk society theory (Beck, 1992): it approaches consumption considering individuals as responsible for what they choose; facing growing global risks (ozone depletion, climate change to mention), individuals can be segmented according to their awareness of the risks that their conduct as consumers may bring for them and for the environment (e.g. the use of car as mean of transportation). Finally, the cultural value-change theory (Spaargaren & Mol, 2011) assumes that cultural shifts, towards a non-materialist culture as recorded by Inglehart analysis (1995; 1982), directly influences consumer choices. Looking at these perspectives from another angle, we can easily acknowledge that cultural value change and risk society theories may assist justifications about using an ABC model. Indeed, individualistic and rational perspectives on consumption assume personal beliefs, perceived norms and attitudes as efficient predictors of consumption patterns: once researchers identify and isolate the cognitive components of specific choices of consumption (e.g. level of awareness), behavioural changes can be obtained by intervening exactly on those components (Hargreaves, 2011).⁴

Already in 2003 Gert Spaargaren directly call for empirical focus onto lifestyles and strategies for innovation government administrative bodies implement for sustainability in utility sectors (2003). This was further echoed in 2010, when Hinton and Goodman contributed to the *International Handbook of Environmental Sociology* with a chapter about sustainable consumption as sociological research object. They were very critical about behaviouristic approaches to consumption highlighting the too much rationalistic representations of social actors being considered only as consumers.

Repeated actions (or chains of actions, routines) cannot be labelled only as a choice consistent with a structure of attitudes, nor it is only a matter of awareness of being exposed to a risk. In this regard, Blue, Shove, Carmona and Kelly (2016) argued that even un-healthy practices associated with addiction, as for instance smoking, cannot be disconnected by the entanglements with other activities (eating out, taking a break from work etc.). Hence, the complex of social relationship of which consumption consists cannot be flatted even considering the case of addiction. A specific conduct is largely connected to other arrangements of social life. Moreover, any kind of conduct do not happens in the vacuum, rather within a larger socio-technical regime (Geels, 2011) of established practices and their rules (Hargreaves, Longhurst & Seyfang, 2013). Theories of practices, as previously said, shifts the researcher's gaze from the consumer to the practices as proper and fruitful unit of analysis. In this regard domestic waste management, of course, is not exempted.

In analysing households' attitude in recycling, Thomas and Sharp (2013), for instance, admitted that normativity is not as diriment as it was supposed to be as predictor of virtuous habits. In interviews with

4. One of the most celebrated articles in this scholarship is *The Theory of Planned Behaviour* by Ajzen (1991). According to Scopus' figures, at the beginning of 2019, the paper got 25.948 citations; the 31,4% of them is from contribution into social sciences.

recycling and not-recycling households they recorded the presence of alternative and opposite norms consistent with their habits even though the law (the regime) in the country they considered — United Kingdom — expressly promotes recycling.⁵ Therefore, explanations for pro-environmental practice should be found somewhere else. Martin and colleagues (2006) in reviewing studies about the profiles of non-recyclers pointed out that both lack of time and inconvenience of recycling stations work as main explanatory factors of non-recycling conduct. A more recent comparative research between households in France and the UK, echoed these evidences; time pressure and family dynamics do play a critical role in arranging both spaces and routines for recycling (Boulay, Metcalfe, Barr, & Shaw, 2014).

Although examples in the literature about the theoretical and empirical limits of behavioural approach to understand consumptions shapes a clear depiction, such a perspective is still largely appealing. To drive people towards more virtuous and sustainable paths, as recycling, there is a systematic tendency to apply promotional strategies through incentives. This is the case of RVMs' rationale. They are appositely designed to collect plastic bottles and caps assigning a reward to whom bestows them.

The presence of such a technological artefact calls for the adoption of a dedicated perspective. Indeed, an Actor-Network Theory (ANT) approach have been fruitfully adopted for investigating vending machines (Piccioni, 2008; Mattozzi & Piccioni, 2012) as well as for other levels of waste management (Bortolotti, 2019; Minervini, 2010 & 2013). Typical ANT categories, such as script (Akrich, 1992; Akrich & Latour, 1992) program of action and delegation (Latour, 1992) are useful here to reconstruct the rationale and the assumption laying behind the design and the installation of those machines. Indeed, looking at RVMs with these lenses can contribute to discuss theories of practice highlighting the role of material components of social practices.

In this regard theories of practices, as Reckwitz (2002) signals, practices consists of the interconnection of multiple elements such as objects ("things" as Reckwitz calls them, *Ibidem*, p. 249), competences and meaning. Warde (2014) recognizes that the second generation of theories of practice is partly in debt with STS and more specifically with ANT. Thus, the material side of social practice is recognised as a key element of what can be identified as a practice, and Shove, Pantzar and Watson (2012) elevated it to not less than a specific component of a formalised triadic system for a proper analysis of social practices.

3 An Automatized Incentive to Enact Circular Economy: Recycling PET through RVM

European Environmental Agency certifies that the average rate of municipal solid waste recycled reached the 43.6% in 2014, +13% compared to 2004 (EEA 2016). If we look at the figures for packaging waste in 2013 the share reaches 65.2%, +10.6% compared to 2005 (Id.).⁶ EU considers these data as a successful story and the outcome of well devised EU environmental policy (Id). On this momentum, the EU launched the EU Circular Economy Package presenting it as an "ambitious and long-term path for waste management and recycling."⁷ The general idea of circular economy is a change of paradigm from a linear trajectory that figures the extraction of resources (natural resource or raw materials) transformed during the production phase as second step and thus phase of consumption. This model, currently the dominant one, has several leaking points that produce waste which is typically directed towards landfilling or energy recovering. According to Eurostat (2018), even though recycling is increasing, landfilling and burning are still relevant solution for waste disposal: in 2016 more than half of waste produced in EU 28 routed towards: landfilling (45.5% of the total), energy recovery through incineration (5.6%), backfilling

5. The Household Waste Recycling Act required to local administration to provide dedicated bins for each item to be recycled already in 2003. See <http://www.legislation.gov.uk/ukpga/2003/29/contents> (Last accessed 19 February 2019).

6. The *Guidance on Municipal Waste Data Collection*, published in May 2017 by Eurostat, defines municipal solid waste as "waste originating from households, commerce and trade, small businesses, office buildings and institutions (schools, hospitals, government buildings). It also includes: waste from selected municipal services i.e. waste from park and garden maintenance, waste from street cleaning services." (p. ii). Packaging waste is part of municipal solid waste and includes "absorbents, wiping cloths, filter materials and protective clothing not otherwise specified" as well as all the kinds of packaging (food, beverage, etc.).

7. http://ec.europa.eu/environment/circular-economy/index_en.htm (Last accessed 19th February 2019).

(10.1%, that means burying for the purpose of slope reclamation or safety or for engineering purposes in landscaping) or incinerated without any energy recover (1.0%).

Circular economy might play a more virtuous role. Indeed, it brings the idea of closing the loops of production and consumption re-using (alternative use, refurbishment etc) the wastes produced, as well as the goods that reached the end of their lifecycle. In other words, circular economy promotes the re-use of each by-product deriving from production cycles, in practical terms limiting the use of landfill as waste disposal option. It is possible to distinguish between two groups of circular economy activities (Stahel, 2016): a first one promotes reuse, fixing and remanufacture/repurpose of goods; a second group that turns old goods into new resources by recycling their components (*Ibidem*).

Domestic waste recycling, according to EU, falls exactly into this latter group. EU encourages the recycle by affirming “materials from products at the end of their lifecycle should be recovered through dismantling and recycling. Re-injecting these materials into the beginning of the product lifecycle reduces environmental impact and costs of production.”⁸ Hence, a strategy for the promotion of circular economy is to foster new forms of recycle.

In this regard, RVMs offer an original interpretation of circular economy to be performed through the interaction with technologies (Figure 1).



Figure 1. The two RVMs considered for this research: on the left the one settled in the city centre, on the right the one positioned side to the entrance of a shopping mall. Source: Photo by the author.

The two RVMs were equipped for providing some kind of reward: the first one, on the left, has been equipped with technology for giving back credit through an app directly to users' smartphone or to print a coupon as an alternative; the second one, on the right, only releases coupons. In both cases, a user is supposed to choose the reward according to his/her interests; discount or credit can be spent respectively in the shops of the city centres or inside the shopping mall. The general functioning of RVMs is described in the following newspaper article.

8. https://ec.europa.eu/commission/sites/beta-political/files/circular-economy-factsheet-waste-to-resources_en.pdf (last accessed 28th December 2019).

Thanks to eco-compactors [RVMs, N.d.A.], by correctly differentiating waste, citizens will not only perform a good environmental action but will also be rewarded in an easy and direct way. Users just have to throw PET plastic bottles, PE-HDPE plastic caps and aluminium cans in the eco-compactor: the machine is designed to recognize the type of waste, differentiate it automatically, reduce the volume up to 90% initial and transform the material transferred into a bale ready to be sent to the recycling chain. In turn for waste the machine will allow the user to choose, thanks to the touch screen system, which discount or coupon to get as a reward, depending on the type of store chosen (e.g. restaurant, pizzeria, chemist, wellness centre or supermarket), to be spent in the activities under agreement in the historic centre.

(Il Sole-24Ore 24 April 2016)

This article describes exactly how the RVM is part of a larger network of interactions. It refers both to the technical details (the volume reduction for bestowed packages) and to how it can positively influence local activities of the area. Actually the “automatic differentiation” is performed through the presence of the small-doors: each of them is designed to receive different kind of packages according to the material which is made of. Thus, the sorting is made manually by users, but I will be back on this later in the next paragraph. What is relevant at this point is that RVMs need to be part of shared project for business as this other article exemplifies.

*Go Recycling*⁹ is the project based on the creation of business starting from what most people consider scrap. It is something new for us [in Italy N.d.A.] while already established in some other countries where these collectors, once inserted the material give in exchange good or even coins. The collector [i.e. the RVM, N.d.A.], [...], allows the micro-collection of “valuable” materials (PET, ALU, etc.): just insert the “products” into the machine to receive a gift voucher in exchange.

(La Nazione, 6 November 2015)

The ecosystem of economic relationship is further explained in this other newspaper article; it is indeed necessary to have an agreement between shop owners, municipalities, recycling centres and utilities for environmental services and waste management.

[...] An eco-compactor was inaugurated to collect plastic bottles, cans and steel boxes. Installed only in mid-January 2017, to date over 24,000 pieces have been delivered. Coupons received in exchange for waste can be spent at over fifty local businesses and municipal museums: with two coupons you can have a reduced admission ticket instead of a full one.

(AdnKronos 23 March 2017)¹⁰

As we can read in this extract from Italian news, the declared rationale underneath the installation of RVMs is to promote a sustainable pro-environmental behaviour by giving value to waste. For whom recycles specific items, whatever it is PET bottles or aluminium cans etc. Money, or other forms of economic incentives are provided. The specific incentive may vary locally. However, the general approach is recognizable: to give back a small reward (a part of this new value) to whom (re)introduce waste into a “virtuous cycle.” To perform such process collecting points are needed and they should be not the same of recycling stations. Rather, they need to be explicitly dedicated to an alternative shorter and more remunerative path of recycling. The items bestowed there are brought directly to reprocessing (see figure 2).

This shorter path is crucial for ensuring value to the waste: it bypasses the steps that normal waste management facilities envisages, such as selection between different kinds of plastic, transport and cleaning. From the point of users, as previously described, they can get tickets for discount or they can get credit for the purchase of other goods.

9. This is a fictitious name. The same applies to others quoted in the subsequent excerpts.

10. All the excerpts from Italian sources are translated by me.

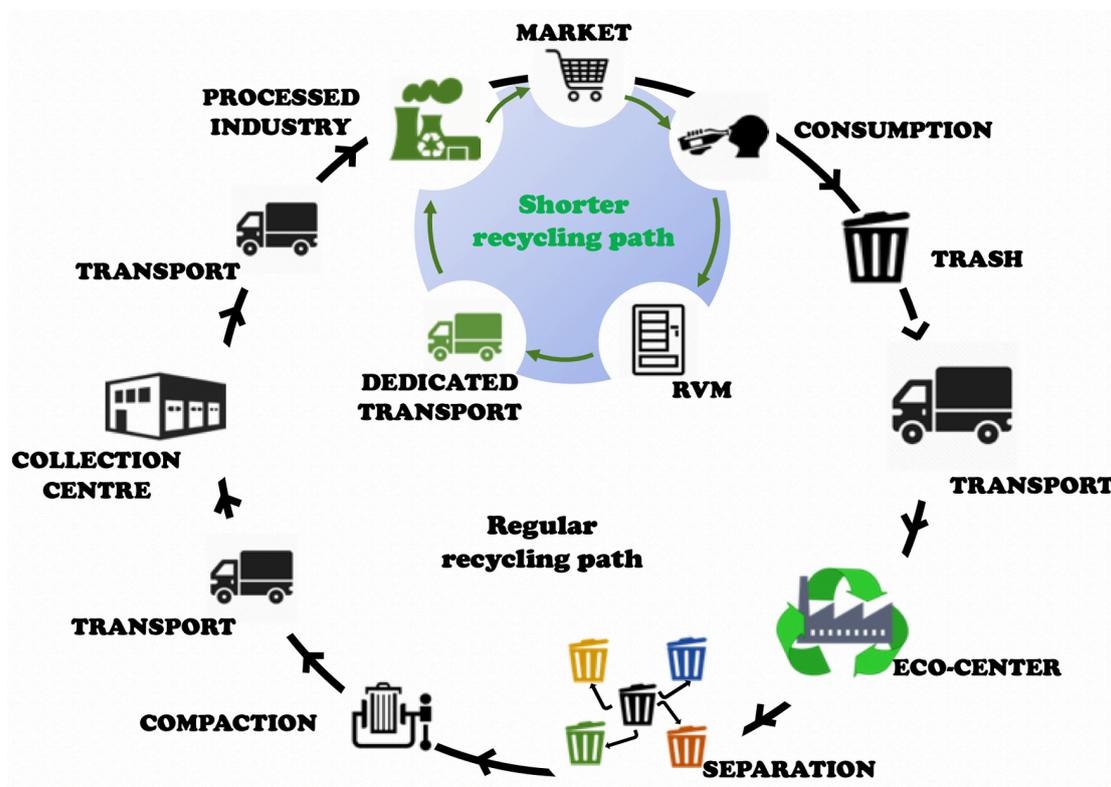


Figure 2. Regular and shorter chains of recycling: shorter chain should reduce environmental impact and ensures valorization of plastic.

Compared to other schemes that rewards the return of specific material for recycle or re-use, as for instance the *Einwegpfand* better known as *Pfand* in Germany, this kind of initiative is business oriented. Indeed, deposit-refund systems is based on an environmental tax. The scheme charges a small amount of money (in Germany 0.25 € for single use containers is charged) on each bottle. Such amount can be recovered by bestowing the bottle to a shop or even to a RVM contrasting the risk of throwing it with unsorted waste or, even worst, disposed in the environment, a problem also called “midnight dumping” (Walls, 2011). However, in this case it is a refund and not a reward.¹¹

On the contrary, RVM promoting reward is a system based on the assumption that recycle per se is a choice that need to be made convenient in order to be performed by citizens.

This system is a system that we build. Obviously, we operate on people’s emotions. [...] If I give people an incentive, I give a prize, I give a point [to be summed to others for discounts], there will be a queue in front of the machine. We agreed with the recycling consortia to give incentives.

(Excerpt from Italian daily morning show on national television)

This concise explanation of the RVM logic is given by the CEO of RV Inc., an Italian RVM producer firm: he clarified this aspect during a presentation in a morning TV show on Italian national television.

This is in line with rationalistic theories previously recalled. Indeed, it demonstrates the appeal of the approach towards behaviour change. There is a clear assumption about the gratification promoted by an economic reward, perfectly in line with the ABC model. Gratification feeling, considered as universal, should spread and contribute to the success of this alternative chain for recycling (“there will be a queue”). For our discussion this is a first interesting hint that allows to mark out about the agency of technology, the material arrangement, within domestic waste management as social practice: the technology is charged with the expectation to promote a specific and — for the RVM producers — more desirable way of recycling. Coherently, the design of such technology is configured in that way to promote a specific change in, or a re-shaping of, domestic waste management daily habits.

As it is clear from the media representation and the short excerpt just few lines above, the whole argumentation envisages the presence of a dedicated technology. The strategy of RVMs assigns a clear relevance to a material component of interaction. Indeed, it reconfigures the value of waste exactly being an access point or collection point for PET bottles. In this case, a technological artefact is appositely designed for intervening in domestic practice of waste management since waste sorting is an already provided municipal service. Moreover, it is the turnout or, in other words, the access point to the alternative path for recycling that enacts a different and more profitable one. Apparently it is more profitable for anybody: i) for who throws bottles and gets a reward; ii) for who got an already sorted and compact bale of plastic ready to be reprocessed and thus sold as raw material; iii) for local shopkeepers who provide discounts that may increase their earnings.¹²

Producers of RVMs try indeed to make RVMs as passage points, made convenient to users through incentives, in the chain of recycling. Shortening of the recycling loop would not be achieved in the same way without the intermediation of this technology. A single RVM provide several kinds of rewards that a user can easily choose on a touchscreen at the end of PET bottles bestowing, perfectly substituting alternative collecting points that requires a human operator. Finally, the RVM accept any container independently of where it has been purchased; this means that it is open to collect from any source totally substituting retailers as middleman of deposit-refund schemes (Walls, 2011).

11. The *Pfand* system, as well as other deposit-refund schemes, contribute to shape specific practices of urban mining: people at the margins (e.g. unoccupied, homeless) self-organize as informal collectors in order to obtain what they need to survive. In Berlin, for instance, it is common to see people collecting dozens of bottles on shop-carts; there are even further side effects as for instance the creation of dedicated web platforms and apps for facilitating collectors (Barrin, 2018).

12. It should be noted that the general discourse detected through content analysis of the corpus and through the RVM instructions about recycle plastic does not question the issue of the plastic use reduction. Rather it encourages recycling depicting it as economically convenient and even environmentally friendly. There is a general agreement on the need to reduce plastic use, since plastic has a less efficient recycling path, therefore the proper environmental issue is to limit plastic use in our daily life, for instance for food packing. RVMs seems to relieve consumers from this burden. This may resonate with the “rebound effect” already detected for energy use by households equipped with solar panels (Greening, Greene & Difiglio, 2000), since it allows to keep energy consumption or even at higher levels rather than decreasing them.

The centrality of a technological artefact in a larger and heterogeneous network of actors for promoting sustainable practices in the framework of circular economy becomes even more evident in case of failure.

Once finished to empty my bag I push the button... Alas! Not a sound, nor a bill.

The machine just took my PET bottles and caps giving me back any reward! I called the telephone number pasted on the front side of the machine in order to signal the failure and to inquire further about the doom of my waste. The man in charge of maintaining the RVM gently explained me that the agreement between the municipality and the company providing the machines expired. It has not been judged convenient enough to be renewed and what the screen is still describing to me is no longer valid in the town. Thus, the machine is “out of the grid.” RVM properly collected my bottles and caps but they will follow the normal path of recycling being aggregated to the original category of waste I was accustomed to: plastic, cans and glass, all together.

(Extract #3, ethnographic notes from fieldwork, RVM in the city centre)

As we can read from this excerpt from fieldnotes, all the efforts for selecting bringing there the bottles and further separating caps were useless for two reasons: first, no reward was provided, second the shortcut into recycling path was not available. Since the machine was “out of grid” (actually, out of a specific agreement for rewarding) the RVM failed: no value could be generated.

Indeed, a key issue for RVMs, to shape directly the practices of recycling, as we learned is connected to the ability of imposing itself as the *obligatory passage-point* (Callon, 1986) for a shorter path of circular economy through incentives. As Callon marked out about how to track trajectories of technoscientific innovation through an ANT perspective (*Ibidem*), obligatory passage-points consist of issues to be solved that are ineluctable premises for dealing proficiently with another — connected — one. This concept embraces a variety of possible elements such the setting up of a narrative point as common need (Kitchen, 2000), human bodies (Crabu, 2017) but, being plastic enough concept, it may include even material elements as for instances artefacts. This is the case for RVM: through it, the entire network of relationships keeps its function shortening the recycling path and, as a consequence, it allows to produce the required value to be distributed as reward to users.

Conversely, if it does not work properly thus all the activities carried out hitherto becomes of a limited utility: an “out of grid” machine gave back no reward (no value could be generated) and did not contribute to a shorter recycling path.

When technologies do not attain to the task, when the input does not give back the expected output (Volonté, 2017), then we have an additional proof of its agency (*Ibidem*). To say it differently, if RVM as obligatory passage point falls it will thus promote a domino effect making pointless any effort required for adapting to the scripts envisaged by the RVM itself (see next paragraph for details).

Furthermore, as demonstrated by STS literature about infrastructures (Leigh-Star, 1999), failure reveals what is normally invisible to users, for instance the tasks assigned to an apparatus of technologies. In this specific case, the failure in triggering the shorter path for circular economy allows us analytically to deal with two further categories about the agency of technological artefacts such as: the scripts that RVMs promote and the related delegations of tasks from the waste management system directly to the user.

4 Scripts and Delegations

To throw plastic, aluminium cans, glass, paper in dedicated garbage containers requires a specific activity of sorting. For plastic, potentially among the most problematic materials to be reprocessed (Nace, 2017), this is particularly crucial. Indeed, not every single plastic resin is recyclable or is actually recycled (*Ibidem*) also because too costly and thus inefficient (Dars Ellis, 2012). The most convenient category of plastic is Plastic Number 1, PET.

Let's reconstruct the trajectory of the long path (figure 2) for a PET bottle¹³: once collected for instance from kerbside, waste management municipal service move the bottle (together with other litter such as other plastic resins waste) to an eco-centre. Then, the waste needs to be sorted, that means separated by wastes and packages that are made of other plastic resins (Polypropylene — PP or High-density polyethylene — HDPE). Plastic resins need to be processed homogeneously, that means that each bale should contain only the same kind of plastic. After that, bottles are washed to ensure that plastic is as pure as possible. Then, it is crushed by processing industry into small flakes before finally be compacted into pellets ready to be used by industries that will use them to extrude new products (Dars Ellis, 2012).

What is clear from this sketchy description is that the system of recycling has several different tasks to be performed in order to obtain new raw material to be re-used for new products. Such a process necessarily has some costs that normally relapse on the end-user of recycled polymer as well as on the citizen that pays for waste management. The shorter path reduces these costs; it provides to processing industry an already selected and cleaned plastic. From this derives the value that contributes to the reward provided by the RVM.

This time I sorted my waste differently. Indeed, I collected plastic bottles separately in a bag in order to bring them to another destination. A reverse vending machine (RVM) has been settled to receive a specific portion of waste: polyethylene terephthalate (PET) the type of plastic used for disposable beverage bottles. If I bring my PET bottles to the RVM, that otherwise would be only waste to me, it will provide me a small amount of money, actually a coupon, I can use in local shops as discount. I have come across this opportunity very recently and it looks convenient.

(Extract #4, ethnographic notes from fieldwork)

RVMs are designed to accept specific kind of packages that are normally inserted in the recycling path all together; in other words, the RVM has its script through which properly interact. As any other technology or artefact (Akrich, 1992) RVM embodies specific value systems that shape the way through which users are allowed and, conversely, not allowed to use it. In this case, since the shorter path of recycling need to cut the costs of sorting and transport to produce value within the circular economy framework the designers of the machine, the passage point, set up specific features that imposes rules of interaction. In other words, a script. Technically, as previously said, this is obtained with the design of the small doors and the diameter of the holes for bottles. This is not the only strategy: indeed, the second RVM visited in a shopping mall (figure 1, on the right) only few kilometres far from the town centre described before, imposes explicit rules: "Reduce, recycle, reward. Bring here 10 empty [PET] water bottles. 10 bottles = 1 coupon for discount" (emphasis added).

So, in this case the rules for interaction are settled very clearly: the acceptable bottles are explicitly indicated, as well as the minimum amount required to get the reward. One could object that it is not actually influencing how to perform the entire chain of actions that constitute the practice of recycling; indeed, it seems to limit its influence to the imposition of how dealing with a specific basic task, namely how to throw bottles. However, if we examine what is needed to perform the bestowing of PET bottles, we can realize how those scripts actually delegate tasks that are normally part of the longer path of waste management. Indeed, RVMs are oriented at, or presume a, reshuffling of waste management, entirely.

I read carefully the instructions. They are written in green block letters clearly visible. According to them, I should only insert bottles and caps separately and then push a button to get my reward. A last effort consists of putting bottles and caps one by one; it takes just few minutes but longer than emptying my bins in the garbage container. Overall, I think the game is worth the trouble. Recalling to my mind the steps I made up to this point, still, the whole operation seems convenient, although I had to further select my waste, separate a part of it and finally bring it here. Indeed, here the system is designed for rewarding my efforts: the coupon and the reassurance that my PET bottles will follow a shorter, more

13. Minervini (2013) actually did it. In performing a valuable ethnography of a recycling centre, he concretely followed the recycling path of his wine bottle.

convenient and more environmentally friendly path toward recycling.
(Extract #5, ethnographic notes from fieldwork, RVM in the city centre)

To better understand this element another ANT concept may help: it is called as *program of action* (Akrich & Latour, 1992). Taking a step back about how recycling PET bottles works I figure out a detailed path. Indeed, to perform a proper recycling some steps, as described before, are necessary. Each step corresponds to a specific task to be performed. Each task is assigned to a specific actor (see figure 2) and this is the detailed program of action. But in order to produce value — to implement circular economy — these tasks need to be delegated to a less costly actor. Such a program of action of recycling PET bottles is similar to the longer path but, through a series of delegated task included in RVM's scripts, it shortens the path. This means that who defined the scripts expects users to include the act of bestowing selected waste in a defined series of tasks, thus outlining a program of action.

The shaping of the program of actions qualifies agency of artefacts such as RVMs. Indeed, it is a way through which the agency of a material component of a practice influences the shape of the practice it-self.

The woman describes to me how the RVM works. While she is inserting the bottles in the hole separating them from caps, she explains to me:

“It’s a pain in the neck because it requires time in separating bottles and to get here, but at the end of the day you can recover something [she hinted at the touch screen through which select the discount coupon] for the grocery and you produce less waste. Here it is comfortable since I can come by car. So, it is ok. Fortunately, today there is no queue.”

She concludes to bestow the bottles she brought there in her bag, selects the discount on the touchscreen of RVM, she pushes the button to get the coupon. She tears the bill apart and heads towards her car.

(Extract #6, ethnographic notes from fieldwork, RVM at the shopping mall)

As described in the field notes and conversations with a user, it is possible to point out at least three of them:

1. Selection: a further and more refined selection among plastic waste;
2. Transport: selected plastic wastes need to be appositely brought to the RVM;
3. Separation: further separation of components of plastic waste is required at the moment of bestowing it to the RVM.

Selection is the first necessary task to be performed. In the case of the RVMs considered so far, it means to sort out part of a more general waste category (plastic) that normally would be grouped together not considering the resins. Concretely this is translated in storing PET bottles in another place, a bag, a bin or a crate. This might not be a difficult task, but it can reroute normal domestic arrangements even for a recycling household: from merely allocating room for the outcome of the further selecting criteria, to the time to be dedicated to such a task. For the latter, it should be reminded that the RVMs are not as capillary diffused as garbage bins, nor as door-to-door recycling scheme. Thus, using them requires an out-of-sync moment for delivering PET bottles to RVMs compared to regular recycling path as it emerged from the field. This brings us to the second delegation, transport: selected plastic waste needs to be brought to the specific places where the closest RVM is located. According to direct observation and to the review of media releases, RVMs may be settled in town centre, in a shopping mall or even in a parking lot. To carry appositely selected bottles means to include such a destination into one's own route. Independently on the convenience of walking, cycling or driving on regular basis with a bag full of waste, this might be an uncomfortable task since it might be awkward and inappropriate. We should keep in mind that the stability of practices is assured by interconnection with complementary ones (Hargreaves, Longhurst & Seyfang, 2013). Indeed, as Blue, Shove, Carmona and Kelly (2016) remind us, there are some practices that have their right places — and moments as well — to be performed: to be aware of

this is part of the skills and knowledge required for carrying on practice in connection with other ones. The appropriateness of bringing waste in non-conventional places for waste might interfere with other practices thus representing a burden.

The final task delegated to user is separation of bottles from caps. Separating the components of the beverage package is a final necessary task that maximize the previous ones: indeed, such a task further safeguards homogeneity of the resins. The two components are made of different kinds of plastic. Looking at accustomed users of RVMs separating bottles from caps is a mechanical gesture but, as described through fieldnotes (extracts #4, #5), at the same time it makes the whole operation longer compared to simply throwing plastic (even if sorted) in a dedicated trash bin.

Taken all together the three delegated tasks are consistent with the reduction of steps for the path of recycling; and this actually allows to save time and energy. Each task relieves the entire chain of a burden that can be monetized. In doing so, the RVMs to work properly, at least, requires a specific reshuffling of the conventional program of actions for domestic waste management; through its scripts it delegates three crucial tasks that contribute to create value out of waste.

This actually contributes to implement a circular trajectory involving heterogeneous actors (users, technologies, municipality, wastes) enrolling them into a network of interactions that can be called an assemblage or an actor-network (Latour, 2005).

At this point we might ask ourselves: does technology changes behaviours or re-configures practices? The answer to this question needs to recall what discussed in the previous pages.

5 Conclusions

The analysis provided here concentrated on RVMs functioning and the re-composition of everyday practices they are supposed to bring. I recovered some elements from seminal works of STS especially recalling key concepts from ANT to explore in depth an attempt to reshape domestic waste management practices brought by RVMs. This brought me discuss in an empirically informed analysis the performativity of non-human actors within a significant environmental issue such as domestic waste management.

From an analytical point of view this strategy offered at least two advantages: on the one hand, it allowed to analyse both users and waste managers; on the other, as a starting point it gives back a more accurate analyse of waste recycling as mundane activity. I used an eclectic methodology including content analysis of media releases and field-notes from a self-ethnography. Thus, I extrapolated scripts as designed by engineers that created RVMs, as publicly presented and by following them, their values systems and tasks delegated to users.

I took advantage of the path already made by the fruitful contamination of the theories of practice by environmental sociology in the specific research area of sustainable consumption. As already recalled above, it contributed sensibly to show empirical and analytical opportunities deriving from such an approach provided relevant theoretical insights for advancements in social theory (Warde, 2014) furthermore have been tested in dealing with social change (Spaargaren, Lamers & Weenink, 2016) also in a multilevel perspective (Hargreaves, Longhurst & Seyfang, 2013).

More specifically, what has been done here was the re-injection of an STS perspective setting the technology at centre of the focus of the analysis of domestic waste management as social practice. Recently the material component of social practices has been judged as just as “employed, manipulated and constructed by the participants in their doings and sayings” (Spaargaren, Lamers & Weenink, 2016, p. 9) thus refusing the performativity of non-human actors. The case of RVMs for plastic recycling proofed the non-neutral role of technology emphasising the performative ability of the materiality into social practices.

Partially following the idea of RVMs producers: technology can be the promoter of a different set of actions in recycling. Shove, Pantzar and Watson (2012) in their book directly rely on such idea in order to stress the point of the material component of their triadic system for the understanding of social practice.

More specifically posing the material component at the centre of the analysis of social practice enriched the discussion about the two areas of the recycling process:

a) the purpose of reducing the share of disposal and creating profit within the framework of circular economy;

b) the users who are asked to perform recycling, namely sorting, transporting and further separating materials.

The category of delegation allowed to outline how to enact circular economy this way articulates around a diffused chain of mundane arrangements. To produce profits for all the actors involved in the path, some steps need to be performed differently. Scripts imposed by engineers through RVM allow the value creation since they delegated at least three tasks to the end user. It is therefore a delegation from the artefact to the user forcing him to direct and reorganize different aspects of his daily life by investing time, space and energy. Indeed, it influences program of action (Akrich & Latour, 1992; Latour, 1992) for recycling PET bottle as it was meant originally by municipal waste management.

So, we cannot speak only of a delegation to the artefact (or technology in this case). This process goes in an opposite direction either. Technology requires tasks to be delegated to properly function in order to accomplish its duty. Hence, within the debate on the agency of objects in the framework of social practices analysis, it is even more relevant to the present discussion.

This consideration brings us to an answer for the question about the technological push toward changing behaviour. In principle, an approach based on theories of practice should refuse the idea of a pure incentivization through a technological push; several commentaries, review articles and research papers mentioned before already explored critically the issue of behaviouristic approach and its limits. So, literature is quite well aligned. However, for such a case study this answer is not enough; indeed, as shown before, the change of behaviour is exactly within the state of mind of RVM producers. A direct response relies on the reception of the two RVMs visited: it is not by chance that a perfectly working RVM is active in a shopping-mall while the one “out-of-grid” is located in an elegant street of a town centre. Social practices to be performed need to be enrolled in other chains of actions or, better to say, into other bundles of already established practices. Thus RVMs, and more in general technology, is not changing behaviour but it can shape practice of waste recycling provided that it relies on a stable network or relationships, or an actor-network.

References

- Ajzen, I. (1991). The Theory of Planned Behaviour. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Akrich, M. (1992). The De-Description of Technical Objects. In Bijker, W.E. & Law, J. (Eds.). *Shaping Technology/Building Society: Studies in Sociotechnical Change* (pp. 205–224). Cambridge (USA): MIT Press.
- Akrich, M., & Latour, B. (1992). A Summary of a Convenient Vocabulary for the Semiotics of Human and Nonhuman Assemblies. In Bijker, W.E. & Law, J. (Eds.). *Shaping Technology/Building Society: Studies in Sociotechnical Change* (pp. 259–264). Cambridge (USA): MIT Press.
- Alvesson, M. (2003). Methodology for Close up Studies: Struggling with Closeness and Closure. *Higher Education*, 46(2), 167–193. (Retrieved from <http://www.jstor.org/stable/3447465>)
- Barrin, M. (2018). Bottled Gold: The Unexpected Side Effects of Recycling in Germany. *Geographical Magazine of the Royal Geographical Society*. Available on <http://geographical.co.uk/people/development/item/2819-bottled-gold> (Last accessed 18 October 2019).
- Beck, U. (1992). *Risk Society: Towards a New Modernity*. London: Sage.
- Blue, S., Shove, E., Carmona, C., & Kelly, M.P. (2016). Theories of Practice and Public Health: Understanding (Un)Healthy Practices. *Critical Public Health*, 26(1), 36–50. <https://doi.org/10.1080/09581596.2014.980396>

- Bortolotti, A. (2019). Assemblages of Private Waste Management and Recycling: The Case of the Anderlecht Marketplace in Brussels. *Society and Business Review*, 14(2), 174–185. <https://doi.org/10.1108/SBR-12-2017-0113>
- Boulay, A., Metcalfe, A., Barr, S., & Shaw, G. (2014). *Unpacking the Household: Exploring the Dynamics of Household Recycling*. Research report Available at https://www.cokecce.com/system/file_resources/116/CCE_REPORT_FINAL_V10_selection_hires.pdf (Last accessed 6 May 2019)
- Calvino, I. (1993). La Poubelle Agréée. In *The Road to San Giovanni* (pp. 91–126). New York: Pantheon Books.
- Cecere, G., Mancinelli, S., & Mazzanti, M. (2014). Waste Prevention and Social Preferences: The Role of Intrinsic and Extrinsic Motivations. *Ecological Economics*, 107, 163–176. <https://doi.org/10.1016/j.ecolecon.2014.07.007>
- Crabu, S. (2017). Dalla Molecola al Paziente. La Biomedicina nella Società Contemporanea. Bologna: Il Mulino.
- Dars Ellis, A. (2012). Recyclable Products. In Zimring, C.A. (Ed.), *Encyclopedia of Consumption and Waste: The Social Science of Garbage*, Vol. 2 (pp. 731–734). London: Sage.
- Eurostat (2017). *Guidance on Municipal Waste Data Collection. Unit E2, Environmental Statistics and Accounts; Sustainable Development*, May 2017. <https://ec.europa.eu/eurostat/documents/342366/351811/Municipal+Waste+guidance/bd38a449-7d30-44b6-a39f-8a20a9e67af2> (Last accessed 17 October 2019).
- Eurostat (2018). *Waste Statistics*, December 2018. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Waste_statistics#Waste_treatment (Last accessed 17 October 2019).
- Geels, F.W. (2011). The Multi-Level Perspective on Sustainability Transitions: Responses to Seven Criticisms. *Environmental Innovation and Societal Transitions*, 1(1), 24–40. <https://doi.org/10.1016/j.eist.2011.02.002>
- Giardullo, P., & Lorenzet, A. (2016). Techno-Scientific Issues in the Public Sphere (TIPS). *European Association for the Study of Science and Technology EASST Review*, 35(4), 14–17. Available at <https://easst.net/article/techno-scientific-issues-in-the-public-sphere-tips/>
- Glad, W. (2018). Spaces for Waste: Everyday Recycling and Sociospatial Relationships. *Scottish Geographical Journal*, 134(3–4), 141–157. <https://doi.org/10.1080/14702541.2018.1500634>
- Greening, L.A., Greene, D.L., & Difiglio, C. (2000). Energy Efficiency and Consumption – The Rebound Effect – A Survey. *Energy Policy*, 28(6–7), 389–401. [https://doi.org/10.1016/S0301-4215\(00\)00021-5](https://doi.org/10.1016/S0301-4215(00)00021-5)
- Hargreaves, T. (2011). Practice-ing Behaviour Change: Applying Social Practice Theory to Pro-Environmental Behaviour Change. *Journal of Consumer Culture*, 11(1), 79–99. <https://doi.org/10.1177/1469540510390500>
- Hargreaves, T., Longhurst, N., & Seyfang, G. (2013). Up, Down, Round and Round: Connecting Regimes and Practices in Innovation for Sustainability. *Environment and Planning A*, 45(2), 402–420. <https://doi.org/10.1068/a45124>
- Hinton, E.D., Goodman, M.K. (2010). Sustainable Consumption: Developments, Considerations and New Directions. In Redclift, M.R., Woodgate, G. (Eds.), *The International Handbook of Environmental Sociology* (pp. 245–261). Cheltenham: Edward Elgar Publishing.
- Hui, A., Schatzki, T., & Shove, E. (2017). Introduction. In Hui, A., Schatzki, T., & Shove, E. (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (pp. 1–7). London: Taylor & Francis.

- Kitchen, L. (2000). Environmental Policy and the Differentiation of Rural Space: An Actor-Network Perspective. *Journal of Environmental Policy & Planning*, 2(2), 135–147. <https://doi.org/10.1080/714038550>
- Inglehart, R. (1982). *Changing Values and the Rise of Environmentalism in Western Societies*. Berlin: International Institute for the Environment and Society.
- Latour, B. (1992). Where Are the Missing Masses? The Sociology of Few Mundane Artefacts. In Bijker W.E. & Law J. (Eds.), *Shaping Technology/Building Society* (pp. 259–264). Cambridge, MA: MIT Press.
- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford, UK: Oxford University Press.
- Martin, M., Williams, I.D., & Clark, M. (2006). Social, Cultural and Structural Influences on Household Waste Recycling: A Case Study. *Resources, Conservation and Recycling*, 48(4), 357–395. <https://doi.org/10.1016/j.resconrec.2005.09.005>
- Mattozzi, A., & Piccioni, T. (2012). A Depasteurization of Italy? Mediations of Consumption and the Enrollment of Consumers within the Raw-Milk Network. *Sociologica*, 6(3). <https://doi.org/10.2383/72702>
- Minervini, D. (2010). *Politica e Rifuti*. Napoli: Liguori.
- Minervini, D. (2013). Governance in a Bottle. In M.J. Zapata Campos & C.M. Hall (Eds.), *Organising Waste in the City. International Perspectives on Narratives and Practices* (pp. 99–120). Bristol: Policy Press.
- Nace T. (2017). We're Now At A Million Plastic Bottles Per Minute – 91% Of Which Are Not Recycled. *Forbes*. Available at <https://www.forbes.com/sites/trevornace/2017/07/26/million-plastic-bottles-minute-91-not-recycled/> (Last accessed 20 February 2019).
- Piccioni, T. (2010). Sulla Delega alle Macchine. L' Oggetto come Attore Sociale nella Reintroduzione del Latte Crudo tra i Consumi Alimentari. *Tecnoscienza. Italian Journal of Science and Technology Studies*, 1(1), 11–38.
- Postill, J. (2010). Introduction. In B. Bräuchler & J. Postill (Eds.), *Theorising Media and Practice*, Vol. 4 (pp. 1–34). Oxford: Berghahn Books.
- Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243–263. <https://doi.org/10.1177/13684310222225432>
- Schnaiberg, A. (1980). *Environment: From Surplus to Scarcity*. Oxford University Press.
- Shove, E. (2010). Beyond the ABC: Climate Change Policy and Theories of Social Change. *Environment and Planning A*, 42(6), 1273–1285. <https://doi.org/10.1068/a42282>
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. London: Sage.
- Shove, E., & Spurling, N. (Eds.). (2015). *Sustainable Practices: Social Theory and Climate Change*. Oxon-New York: Routledge.
- Spaargaren, G., & Mol, A.P. (2011). Environmental Social Sciences and Sustainable Consumption. In D. Southerton (Ed.), *Encyclopedia of Consumer Culture* (pp. 538–544) London: Sage Publications.
- Spaargaren, G., Lamers, M., & Weenink, D. (2016). Introduction: Using Practice Theory to Research Social Life. In G. Spaargaren, D. Weenink & M. Lamers (Eds.), *Practice Theory and Research: Exploring the Dynamics of Social Life* (pp. 3–25). London: Routledge.

- Stahel, W.R. (2016). The Circular Economy. *Nature News*, 531(7595), 435. <https://doi.org/10.1038/531435a>
- Thomas, C., & Sharp, V. (2013), Understanding the Normalisation of Recycling Behaviour and Its Implications for Other Pro-Environmental Behaviours: A Review of Social Norms and Recycling. *Resources, Conservation and Recycling*, 79, 11–20. <https://doi.org/10.1016/j.resconrec.2013.04.010>
- Volonté, P. (2017). Il Contributo dell'Actor-Network Theory alla Discussione sull'Agency degli Oggetti. *Politica & Società*, 6(1), 31–60. <https://doi.org/10.4476/86799>
- Walls, M. (2011). Deposit-Refund Systems in Practice and Theory. *Resources for the Future Discussion Paper* (pp. 11-47). Available at <http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-11-47.pdf> (Last accessed 21 October 2019).
- Warde, A. (2014). After Taste: Culture, Consumption and Theories of Practice. *Journal of Consumer Culture*, 14(3), 279–303. <https://doi.org/10.1177/1469540514547828>
- Watson, M. (2012). Household Waste Recycling. In S.J. Smith, M. Elsinga, O.S. Eng, L.F. O'Mahony, S. Wachter, *International Encyclopedia of Housing and Home*, Vol. 3 (pp. 234–238). Amsterdam: Elsevier.

Paolo Giardullo: University of Padova (Italy)

ORCID <https://orcid.org/0000-0002-2560-9088>

✉ paolo.giardullo@unipd.it

Paolo Giardullo, PhD, is a sociologist working as post-doc researcher at University of Padova within PaSTIS research unit. His main research interests lie at intersection between Environmental Sociology, Science and Technology Studies and Public Understanding of Science.

My Journey within Practice-Based Approaches Bandwagon

Mika Pantzar*

Published: December 31, 2019

Abstract

In this comment to the Symposium on the *Contamination of Practices*, the author reflects on the birth of practice theory, as emerged from the work done with his colleague Elizabeth Shove. In doing so, the comment outlines that the interest to develop this approach especially emerged from the author’s frustration with the perspective to consumption common in economics. Starting from this subjective view, the article takes into consideration the contribution from the papers included in the symposium, highlighting that their variety reveals the flexibility and usefulness of the practice approach.

Keywords: theory of practice; structuration theory; practice turn; consumer economics.

Acknowledgements

I want to acknowledge the help from Senja Laakso on giving useful comments to the draft of this paper.

During the last few decades a real “bandwagon” of practice-based studies has emerged. Corradi, Gherardi and Verzelloni (2010) have studied in detail different versions of this movement. They suggest with good reasons that the bandwagon has spread through pluralism of conceptual labels and ideas. Different disciplines have their own versions, eg. “Strategy as practice” or “Marketing as practice.” What follows is a somewhat personal, surely biased, account of my personal “practice approach trajectory” ca. 2003–2014. Reading excellent papers of this volume inspired me to return back in time when my interest arose.

In the next few pages I will try to catch what puzzled and what excited me when starting my work on practice turn. The first step was already decades ago, when I enthusiastically — as a doctoral student — read *The Constitution of Society*:

* Centre for Consumer Society Research, University of Helsinki (Finland); ✉ mika.pantzar@helsinki.fi;  <https://orcid.org/0000-0001-8968-5226>

The core subject of the social sciences is neither the experience of the individual actor, nor the existence of any form of social totality, but social practices ordered across space and time” (Giddens, 1984, p. 2).

The articles in this Symposium make me think how differently practice theories are approached today compared to the situation when my interest first arose while reading Giddens (1984) and, more than a decade later, *The Practice Turn in Contemporary Theory* (Schatzki, Knorr-Cetina, & Von Savigny, 2001). Compared to my early, somewhat uneducated theoretical optimism, the authors here (e.g. Volonté, Tosoni and Magaudda & Piccioni) seem to share a much clearer and less confused view of what practice theory is good for, and how it could be used. Is this a proof of normalization of the practice approach or alternatively a proof of forgetting complicated philosophical questions behind practice theories? I am not sure.

As a doctoral student of economics, my earliest interest in practice approaches stemmed from my frustration of seeing the “economic man” purely from an individualistic point of view. Methodological individualism of mainstream economics manifested an under-socialized version of human behavior. At the same time, the picture of human behavior in mainstream sociology was over-socialized (Granovetter, 1985). In my early academic career, my response to this dichotomy was to work with terms such as “choreography of everyday life” or “domestication of technology.” Since then some of these concepts have become quite widely used and normalized when emphasizing agency-structure interdependencies. Also, my dissertation, titled *A Replicative Approach to Evolutionary Dynamics* (1991), was much stimulated by Anthony Giddens’s arguments for the recursive nature of human behavior and in specific structuration theory overcoming the duality of structure and agency. Therefore, it is no big surprise that listening to Alan Warde’s presentation in the spring of 2003 about potentiality of practice theories in consumer research fascinated me a lot. It is possibly through everyday life repetitions and ordinary routines that changing consumption patterns could be approached.

According to Warde, theories of practice justify the rejection of analyses based on models of either *homo economicus* or *homo sociologicus*. At that time I asked Warde whether any ready-made text existed and he sent me a draft of his 2003 CRICT Discussion paper. Picture 1 reveals my reactions and excitement: the paper is full of underlining, exclamation and question marks. It was through this paper that I learned of both Schatzki and Reckwitz, both of whom became in many ways corner-stones in my forthcoming joint work with Elizabeth Shove.

I remember that some parts of Warde’s text were quite complicated to understand, such as the difference between “practice as an entity” and “practice as a performance.” Warde’s paper was published in the *Journal of Consumer Culture* in a purified (to me, less interesting) format (Warde, 2005). It became one of the most cited articles of the journal.

I appreciated Warde’s use of rich theoretical sources and, in specific, a plea for multiple methods: from the practice point of view, most forms of data collection are suitable (This fitted well to Giddens’s appreciation of multiple disciplines, say geography or history, in social scientific account). I felt that there was a major difference compared to standard consumer economics, which simply dealt with exogenously given preferences, changing incomes and prices. Importantly, practice-based theories could add competencies and various feedback mechanisms (e.g. endogenous preferences and technology) to the vocabulary of consumer research.

Later, the emphasis of multiple methods and theories took place concretely later on in many articles written by me together with Elizabeth Shove. When studying, for instance, digital photography or floorball trajectories (Shove & Pantzar, 2007), we used many “social learning methods,” such as participatory observation or autoethnography, in addition to interviews. As Stefano Crabu (2019) in this volume emphasizes, social learning is an essential part of practice-based theories. In many ways, my trajectory from being an economist to becoming a practitioner of practice theory reminds to what Crabu tells about social learning in precision medicine:

Learning is not a neutral process but it takes place in biographical and historical landscapes that co-define peculiar forms and possibilities of participation and learning trajectories (Crabu, 2019).

Indeed, cooperation with Elizabeth Shove (a sociologist and an economist) implied a lot of time-consuming negotiation of interpretations of our different epistemic positions. For instance, we discussed a lot whether we should characterize our framework as a “model” (as economists do), an “approach” or a “theory,” or how to make sense of the mechanisms by which individual acts and practice complexes — relate to each other. When we operationalized our thoughts, we developed a kind of “precision choreography of everyday life.” “Picturing practices” was one of the ways through which we attempted to reach shared understandings. Many topics, such as the diffusion of digital photographing and floorball (Shove & Pantzar, 2007) or nordic walking (Pantzar & Shove, 2010a), temporal patterns of everyday life (Pantzar & Shove, 2010b) or fossilized practices (Shove & Pantzar, 2005) started from simple curiosity or occasionally even from jokes. For me, as a consumer researcher, just the idea of increasingly moving the focus from sayings (or artefacts) to doings and processes was definitely an essential step.

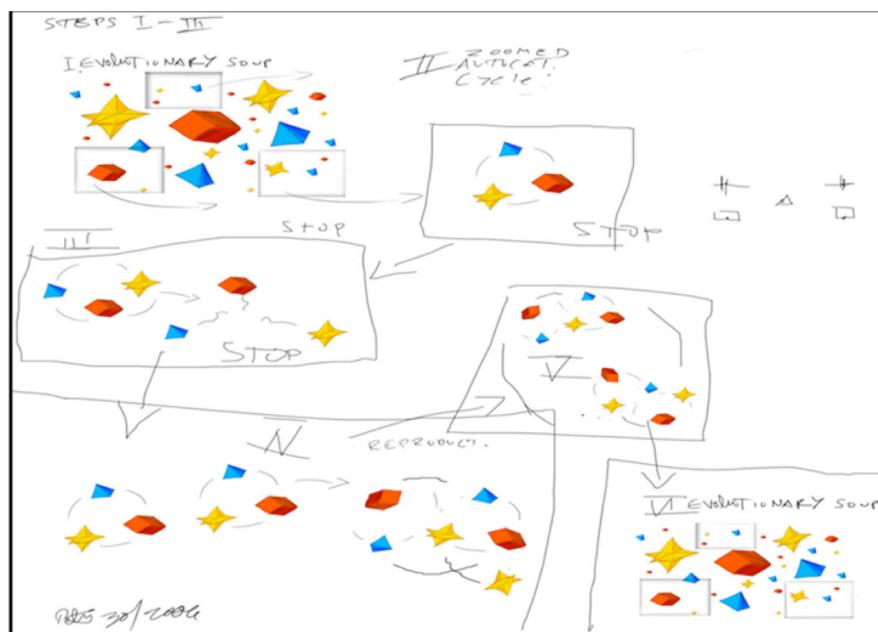
I must admit that articulating various aspects of skills and competencies in daily practices was one of the most demanding tasks for me, because standard economics totally lacks discussions of differently distributed and changing consumption skills. For an economist, motivational forces, material artefacts or ideas (beliefs, values etc.) were much easier to grasp and theorize. My background in evolutionary economics made historical trajectories or recursive nature of practices quite an obvious focus. In my earlier work on — say — domestication of technology, I had emphasized that practitioners change within social and material structures and they also affect changes in these structures. With practice theory, I had to recognize that there is no definite end-point in domesticating technology.

It was 2003–2004 when serious work together with Elizabeth Shove started, as she visited me for a few months at the National Consumer Research Centre. During the following ten years, our joint interest led to several presentations, articles and one book focusing on practice theory. Both of us had been interested in socio-material arrangements in our earlier careers and we also shared the appreciation for Giddens’s work. Reckwitz and, more specifically, Schatzki provided useful theoretical tools to us.

At the very beginning we developed our argument by drawing simplified graphs and figures about practice dynamics (e.g. picture 2). Working by and with drawings might be related to the fact that we both have architects as parents. Because of coming from different epistemic cultures, picturing concepts of practice was a method to negotiate and share understandings about the essence of our practice approach. We also created some joint conventions. For instance, we fixed that different colors referred to different classes of elements. Translating these thoughts into PowerPoint presentations was quite easy. Path towards ready-made articles and a book was much more demanding. Fortunately, at that time I had a five-year grant from the Finnish Academy and many ideas that we had developed together as drawings then were articulated as joint written texts.

We developed a specific and quite simple model, which (Picture 2) we called *integrative model of practice*, suggesting that practice is a process of integration resulting in a structured arrangement. In brief, to persist and survive, practices have to attract and activate practitioners and other constituent elements (material, image and skill). Practices and practice complexes are formed through multiple circuits of reproduction. Very importantly, to close the loop, elements of practices are generated, renewed and reproduced through practice arrangements.

We characterized cumulative forms of integration with terms like “normalization, routinization, habit-formation, practice formation.” Practice innovations (and practices) proceed through various integrations. In this way, practitioners are innovators. Practices figure as something that actual and potential practitioners can participate in or withdraw from. At the same time, practices are constituted through performance. On one side of the coin, practitioners are “captured” by practices that make demands of those who do them. On the other side of the coin, practices are constituted through participation and defined by the activities of those who “do” them. This reminds of general evolutionary dynamics suggesting that systems participate in the building of their own environments. It was especially important to me, as an economist, that practice theory is opposed to any theory arguing for givens such as exogenous preferences or technology (in mainstream economics). Schatzki’s (as well as our) version of practice theory recognized the importance of both performativity and networks. It was also important that practice theory opposes dualistic thinking, which manifests in such dualisms as mind-body, action-structure and human-nonhuman. Contrary to Schatzki, in the spirit of ANT, we suggested that also



Picture 2: Evolution of practice complexes (from M. Pantzar's and E. Shove's Drawing book, 2005)

material artefacts are elements of practices.

We share with Nicolini's (2012) practice approach an invitation to reiterate between two basic movements: on the one hand, to zoom in on the accomplishments of practice; on the other hand, to zoom out of their relationships in space and time. In addition to the notion of zooming in and out, in our book we purposefully stressed zooming back and forth, thereby pondering empirical access not only to spatial but also to temporal dimensions of practice.

Our colleague Inge Ropke from Denmark once expressed her hope that we could make a book providing a theoretically simple toolbox for anybody interested in using practice theory in empirical settings. Indeed, our book (Shove, Pantzar & Watson, 2012) provided a kind of simple skeleton model of practice. Hopefully, it has also generated interesting ideas and conjectures. However, now it feels a bit that our simplified model has also led to oversimplified versions of practice approaches. Maybe one, including me, should go now back to early texts by Schatzki, Reckwitz and Warde to revitalize and reorient the view of practice dynamics.

In retrospect, I can say that in the early excitement I had quite a naïve belief that practice theory combining thinking and doing into a single framework could help me getting totally rid of both cognitive rational models (typical to economics) or purely cultural explanation, e.g. social construction of technology. Later on, I have recognized that at least for the purposes of operationalizing some aspects of practice theory, it is useful to focus only on, say, intrinsic or extrinsic rewards, or infrastructures (as Warde already anticipated in 2003). To some extent, I feel sorry that today most empirical studies in the field of practice are purely based on interviews, whereas not so many are based on other forms of observing and gathering data.

Many thoughts (and thanks) came into my mind when I read the papers of this volume. For me one strength of practice approaches is their capacity to integrate various theoretical streams (here eg. ANT or enactment theories) and very different topics. Indeed, flexibility and usefulness of the practice approach is evident. It does not matter whether one is interested in body ideals (Volonté, 2019), reverse vending machines (Giardullo, 2019), electric infrastructures (Magaudda & Piccioni, 2019), dark culture (Tosoni, 2019), precision medicine (Crabu, 2019) or cooking (Domaneschi, 2019). At least, this variety of texts proves that practice theory as a method sensitizes and structures thinking about various dynamic processes inherent in everyday life. Possibly it also sets traditional theories of consumption, technology and innovation in a more general framework. In a Weberian sense, concepts serve to assist research rather

than capture reality accurately:

Rather than being endowed with the capability to “replicate” the external world or define any particular phenomenon, ideal types are constructed “utopias” that alone aim to facilitate empirical reality (Kalberg, 1994, p. 85).

Seen this way,

each model is designed to engage, even constraint comparative historical researchers in a perpetual back and forth movement between the empirical case, relationship, or development under investigation and a conceptual framework (Kalberg, 1994, p. 12).

References

- Corradi, G., Gherardi, S., & Verzelloni, L. (2010). Through the Practice Lens: Where Is the Bandwagon of Practice-Based Studies Heading? *Management Learning*, 41(3), 265–283. <https://doi.org/10.1177/1350507609356938>
- Crabu, S. (2019). Learning and Shaping Expert Knowledges: The Case of Precision Medicine. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9405>
- Domaneschi, L. (2019). The Sociomateriality of Cooking. The Practice Turn in Contemporary Food Studies. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9477>
- Giardullo, P. (2019). Automatizing Green Practices? The Analysis of Reverse Vending Machines. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9424>
- Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*. San Francisco: University of California Press.
- Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, 91(3), 481–510. Retrieved from <https://www.jstor.org/stable/2780199>
- Kalberg, S. (1994). *Max Weber's Comparative Historical Sociology*. Cambridge: Polity Press.
- Magaudda, P., & Piccioni, T. (2019). Practice Theory and Media Infrastructures: “Infrastructural Disclosures” in Smartphone Use. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9469>
- Nicolini, D. (2012). *Practice Theory, Work and Organization. An Introduction*. Cambridge: Oxford University Press.
- Pantzar, M., & Shove, E. (2010a). Understanding Innovation in Practice: A Discussion of the Production and Re-production of Nordic Walking. *Technology Analysis & Strategic Management*, 22(4), 447–461. <https://doi.org/10.1080/09537321003714402>
- Pantzar, M., & Shove, E. (2010b). Temporal Rhythms as Outcomes of Social Practices: A Speculative Discussion. *Ethnologia Europaea*, 40(1), 19–29.
- Schatzki, T.R., Knorr-Cetina, K., & Von Savigny, E. (Eds.). (2001). *The Practice Turn in Contemporary Theory*. London: Routledge.
- Shove, E., & Pantzar, M. (2005). Fossilisation. *Ethnologia Europaea*, 35(1–2), 59–63.
- Shove, E., & Pantzar, M. (2007). Recruitment and Reproduction: The Careers and Carriers of Digital Photography and Floorball. *Human Affairs*, 17(2), 154–167. <https://doi.org/10.2478/v10023-007-0014-9>
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. London: Sage.
- Tosoni, S. (2019). Dark Enactments in Milan: A Practice-Centred Exploration of an Italian Post-Punk Subculture of the ‘80s. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9475>
- Volonté, P. (2019). Modelling Practice: The Inertia of Body Ideals in the Fashion System. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9490>
- Warde A. (2003). *Consumption and Theories of Practice*, Draft CRIC Discussion paper, University of Manchester.
- Warde, A. (2005). Consumption and Theories of Practice. *Journal of Consumer Culture*, 5(2), 131–153. <https://doi.org/10.1177/1469540505053090>

Mika Pantzar: Centre for Consumer Society Research, University of Helsinki (Finland)

🆔 <https://orcid.org/0000-0001-8968-5226>

✉ mika.pantzar@helsinki.fi; 🌐 <https://researchportal.helsinki.fi/en/persons/mika-pantzar>

Mika Pantzar (PhD) is Professor at Consumer Society Research Centre, University of Helsinki. His current research interests focus on big data and the use of large data sets of various forms (human physiology, netnography, social media etc.). He has published articles widely within consumer research, design and technology studies, rhetoric of economic policy, food and future studies and systems research. Among other works, he is co-author (with Elizabeth Shove and Matt Watson) of *The Dynamics of Social Practice: Everyday Life and how it Changes* (Sage, 2012).

Stirring Up Practice Theory: A Comment

Alan Warde*

Published: December 31, 2019

Abstract

This article is a comment to the Symposium on the *Contamination of Practices*. It starts by discussing the implication of contaminating theory in general and practice theory in particular. Then, it concentrates more specifically on three articles included in the Symposium, focussed on cooking by professional chefs, wine-tasting and fashion modelling.

Keywords: Practice Theory; Contamination; Cooking; Wine-Tasting; Fashion Modelling.

A theory, necessarily an abridged account of reality, ideally identifies elements that capture and represent all of the most effective forces generating social processes, events and patterns of conduct. Theories sketch out an analytical and explanatory route for scientific wayfarers, marking the terrain through which they will pass and pointing out what to observe and measure. That is to say, the journey is a consequence of the specific lens and compass involved. Someone else could pass along the road and see other important sites and landmarks if armed with a different theory.

Over the twenty years since Schatzki, Knorr-Cetina, & Von Savigny (2001) announced a "practice turn in contemporary theory," theories of practice have gained significant traction through many empirical applications and explanatory accounts. This special issue implies that, on balance, practice theories provide good guidance, but systematically omit critical information. In response, the editors define their mission as "contaminating" practice theories. My dictionary defines the verb *to contaminate* as "to defile by touching or mixing with; to pollute; to corrupt; to infect." These are strange objectives; to seek to contaminate knowledge sounds malevolent. The noun, *contamination*, has a more positive variant, "the blending into one of several stories, legends or plots." Blending theoretical approaches is not necessarily a sinister activity, for Sociology rarely benefits from pure theory. Supplementing the stories woven by practice theory with others, through new applications testing its boundaries and limits, promises much.

Sociology does not live through facts alone. An explicit and sustained addressing of theoretical issues helps counteract an ever proliferating and perhaps stifling empiricism. We need greater clarity, explicit working definitions of key concepts and more fitting together. Most of the theoretical improvisations in this collection attempt to marry specific versions of practice theory — originating with Reckwitz, Schatzki, Shove, Pantzar and Watson, and Spaargaren (the decision as to which is rarely discussed or

* University of Manchester (United Kingdom); ✉ alan.warde@manchester.ac.uk;  <http://orcid.org/0000-0002-3505-7336>

justified, c.f. Nicolini, 2012) — to derivations from new materialism, Actor Network Theory, Material Culture Theory, Science and Technology Studies, Pierre Bourdieu, and circuits of culture. The concepts added are heterogeneous. They mostly work well enough in the context of the specific topics to which they are addressed. If you want to understand the role of reverse vending machines (Giardullo, 2019), then you probably need concepts whose focal point is machines, their design and their functioning. If you seek to grasp wine-tasting (de Benedittis, 2019) it would be remiss not to notice the presence of glasses and bottles but probably better to concentrate on eyes, tongues and noses.

Most of the essays are not so much abstract critiques of theories of practice as modifications directed towards enhancing the explanation of specific substantive activities. The applications are often revealing, insightful and intriguing. The three papers allocated to me address practical, instrumental and commercial activities: cooking (by professional chefs), wine-tasting and fashion modelling. In my view, occupations are among the easiest types of activity for practice theory to analyse. In the office, the factory or the restaurant, freedom is limited; there are positions of power, people in occupational positions are obliged by others further up a hierarchy, and by virtue of the competition with peers, to carry out activities within certain parameters. Despite variability in performances due to differences in competence and technique, in adaptability, in inclination and aptitude, in embodied physiological capacity, etc., practitioners follow similar scripts. Perhaps therefore this type of scientific object requires fewer supplements.

Paolo Volonté (2019) offers a relatively straight-forward application of the theory of practice to fashion modelling. He emphasises inertia, routines, embodiment, the entanglement of performances and practices, habitat and convention. Using illustrations and demonstrations founded upon the most detailed ethnographies available (most notably Mears, 2011), he offers a fresh angle on the tyranny of slenderness and the specific techniques of the body which define walking the catwalk. The interpretation of key features of modelling is excellent, but involves very little blending. Perhaps the account might have benefited from some further exploration of themes within political economy, but it presents a very convincing account of how some very puzzling ways of acting are perpetuated.

On the basis of participant observation as a professional expert, Mario de Benedittis describes the procedures involved in wine-tasting. He extracts seven analytic dimensions from Andreas Reckwitz's (2002) theoretical essay — "1) bodily activities; 2) mental activities; 3) materials; 4) spaces; 5) background knowledge and know-how; 6) emotions and motivational knowledge; and 7) language and meanings" — which he uses to describe professional practice. Importantly, these elements could be applied to many other domains of practice. He attributes suitable importance to bodies and instruments, but combines them with the affordances of relative social positioning and social privileges of practitioners. His persuasive account contains the necessary concepts for a thorough yet analytically economical description of crucial features of the activity. It is less a matter of what the materials do than how the interdependence of things and people results in particular ways of doing a job and making judgements about aesthetic quality. De Benedittis's principal modification to a core practice theory framework consists in adding Bourdieusian notions of habitus and positioning within fields to explain variations in practice.

Lorenzo Domaneschi (2019), by contrast, very ambitiously traverses many theoretical patches — Poulain on the food space, Bennett and new materialism, Wilhite on distributed agency, Gherardi on sociomaterialism, Schatzki and Bourdieu. To my mind, this results in overload and risks confusion by blending too many diverse and probably incompatible ingredients. I am not convinced that the food space, the theoretical axioms of new materialism and the analysis of symbolic power can be aligned intelligibly. A problem arises with blending if a large and fragmentary array of concepts from discrepant origins come to obstruct detailed understanding and explanation. I therefore infer that blending is most successful when governed by careful addition and melding of sympathetic ingredients, often in relatively small quantities, and driven by specific explanatory purposes.

Overall, practice theory comes out of its interrogation in relatively good health. If we are looking for strong and versatile theory, it can be a good place to start. Proposed corrections are mostly sympathetic, implying that, despite significant differences within the group, practice theories have enough in common to constitute a viable and distinctive approach. There can be no doubt that they occupy a different bed from rational action theory or functionalism. Achievements include showing that investigations led by practice theoretical approaches tell us different things about activities than do alternatives. The pa-

pers that I examined closely make some very interesting and distinctive observations about the activities of wine-tasting, fashion-modelling and cooking, thereby producing very effective analyses of particular practices. I certainly take away an improved explanation of why fashion models look too thin and walk funny.

The normal approach to theorising is to identify the limitations of a given theory and to advance means for dealing with its omissions or partialities in its own terms, rather than to blend one with another. Should we modify or contaminate? Does blending enhance or detract from practice theory? These papers show that features of different approaches or traditions can be successfully brought together to demonstrably improve analyses of particular situations or activities. Blending however occurs to different degrees. Selecting appropriate supplements seems conditional upon precisely what is to be explained. The temptation to put too many ingredients with little mutual affinity into the pot has to be resisted.

References

- de Benedittis, M. (2019). Expert Wine Tasting as a Social Practice: An Enactive Ethnography. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9481>
- Domaneschi, L. (2019). The Sociomateriality of Cooking. The Practice Turn in Contemporary Food Studies. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9477>
- Giardullo, P. (2019). Automatizing Green Practices? The Analysis of Reverse Vending Machines as a Re-contamination of Theories of Practices. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9424>
- Mears, A. (2011). *Pricing Beauty: The Making of a Fashion Model*. Los Angeles: University of California Press.
- Nicolini, D. (2012). *Practice Theory, Work and Organization: An Introduction*. Oxford: Oxford University Press.
- Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2): 243–263. <https://doi.org/10.1177/1368431022225432>
- Schatzki, T., Knorr-Cetina, K., & von Savigny, E. (Eds.) (2001). *The Practice Turn in Contemporary Theory*. London: Routledge.
- Volonté, P. (2019). Modelling Practice: The Inertia of Body Ideals in the Fashion System. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9490>

Alan Warde: University of Manchester (United Kingdom)

ORCID <http://orcid.org/0000-0002-3505-7336>

✉ alan.warde@manchester.ac.uk; <https://www.research.manchester.ac.uk/portal/alan.warde.html>

Alan Warde (FBA FAcSS) is Professor of Sociology at the University of Manchester. His research interests include consumption, culture, food and sociological theory. Among other works, he is author of *The Practice of Eating* (Polity Press, 2016).

Practice Reloaded: A Statement, an Acknowledgment and a Comment

Attila Bruni*

Published: December 31, 2019

Abstract

This article is a comment to the Symposium on the *Contamination of Practices*. It starts by presenting a concise picture of the adoption of the idea of practice in Science & Technology Studies and Organization Studies and then it offers some remarks on several of the articles included in the Symposium.

Keywords: practice theory; science and technology studies; organization studies; power.

Being a sociologist moving between the fields of organization studies (OS) and science and technology studies (STS), I would like to start my comment with a statement, which is at the same time an acknowledgment.

Among the various debates which have been influenced by the debate around practices, and which have consistently contributed to it, OS and STS are particularly relevant.

In fact, it could be said that already before the publication of the seminal book by Schatzky, Knorr-Cetina and von Savigny (2001), the "practice turn" invested the field of OS thanks to the work of scholars interested in studying learning and knowledge from a situated perspective. It was 1991 when Lave and Wenger developed the concept of "community of practice" to refer to a "set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice" (1991, p. 98). In that same year, Brown and Duguid sketched a "practice-based standpoint" (1991, p. 41) and, some years later, Cook and Brown defined practice as "the coordinated activities of individuals and groups in doing their 'real work' as it is informed by a particular organizational or group context" (1999, p. 390). Gherardi referred to practice as "the figure of discourse that allows the processes of knowing at work and in organizing to be articulated as historical processes, material and indeterminate" (2000, pp. 220–221), while Whittington, discussing the study of strategy in OS, wrote that "the practice perspective is concerned with managerial activity, how managers 'do strategy'" (1996, p. 732).

The idea that practice refers to what people concretely do when accomplishing an activity can be traced back to STS and ethnomethodological studies of science. Laboratory studies (Latour & Woolgar,

* Department of Sociology and Social Research, University of Trento (Italy); ✉ attila.bruni@unitn.it;  <https://orcid.org/0000-0002-4561-0780>

1979; Knorr-Cetina, 1981; Lynch et al., 1983), in particular, focused on “what scientists do” and the “ordinary practical reasoning” they rely on during their everyday work. The advent of actor-network theory (Callon, 1986; Latour, 1987; Law, 1987) made things even messier, adding non-humans to the possible participants of a practice. Building on these premises and on the work conducted at the Xerox Park in the 1990s, Suchman and colleagues (1999) were able to define technologies as “social practice,” showing how technology may acquire different meanings and uses in relation to the local circumstances and the practices in which it is embedded and to which it is connected.

This quick, partial and unexhaustive statement and acknowledgment of some of the early contributions on practice in the field of OS and STS was necessary to make clear that, as Barbara Czarniawska (2015, p. 105) does, one could provocatively question what this “practice turn” is all about.

At a general level, I agree with Feldman and Orlikowski (2011) that the main features of “the family of practice theories” (Reckwitz, 2016) regard the consequentiality of situated actions in the production of social life, the rejection of dualisms, and the relationality of mutual constitution. At the same time, as noted by Gherardi (2016, p. 682): “most practice theories agree on the ingredients of a practice — actions, individuals, contexts, artifacts, rules, symbols, texts, discourses, and embeddedness — but they disagree on the salient feature of each of them.”

Personally speaking, I take this disagreement as an advantage, in that it permits a continuous debate among scholars and the constant development of the field of practices. Also, the papers that compose this Symposium, in fact, do not exactly agree about the salient features of practices. In the paper by Paolo Magaudda and Tiziana Piccioni (2019), for example, emphasis is on the relationship between technologies, action and infrastructures. In particular, the authors focus on the “infrastructural disclosures” that occur when common actions related to smartphones (like messaging or searching the web) are disrupted by a disalignment between smartphones and their infrastructure (made up of electricity, radio signal, data, operative systems and platforms). In their analysis, Magaudda and Piccioni privilege the sociomaterial dimension of practices and the relevance of the connections intercurrent not only between humans and technologies, but also between different kinds of technologies. As famously stated by Star (1999), what for some people and in regard to some actions represents an infrastructure (as for electricity when we switch on the light), for some others (such as the engineers who have to build the entire electric network) constitute a technology to be fulfilled in itself. In this respect, it is worth noticing how practice theory allows for taking into account the never-ending chain of heterogeneous connections which turn stabilized actions and artefacts of a situated context into the problem at stake of another situated context.

Also the paper by Lorenzo Domaneschi (2019) takes sociomateriality as a key characteristic of practices through which investigating professional cooking. The paper shows how the attuning between the embodied skills of the chef and the affordances carried by ingredients allows the work to be performed correctly, especially in situations where the ability to improvise plays an important role. The analysis reminded me of the paper by Jack Whalen and colleagues (2002) about “improvisational choreography” in the work of a call centre. As for teleservice workers, who act on the basis of a routinized practice which, by the way, may require from time-to-time a different “choreography” (meaning, arrangement) of the elements involved in performing a competent telephone call, professional cooks have to find ways of arranging differently elements that are supposed to be always the same, although they may vary in taste, consistency, colour, and so on. In this way, not the body or the food, but the ordering of relationships between the subject and the object, becomes the unit of analysis.

Different from Magaudda and Piccioni, Domaneschi concentrates on the role of the body, its senses, and its techniques. As for many other activities where the body is at the frontline (Wacquant, 2004), it is the body that becomes the infrastructure of practice. This infrastructuring role of the body becomes even more evident in the study by Paolo Volonté (2019) on fashion modelling. The author nicely shows how the body of female models (with its embodied skills and ideal “sizes”) is not the result of the pressure and the power exerted by stylists or managers of the modelling industry. On the contrary, it is part of a practice shared among all the actors of the fashion industry (stylists, managers, photographers, fashion advisors, tailors and models themselves). Detaching the body from individuals and attaching it to practice is the analytical move which permits Volonté to show the inertia of fashion practices and, most importantly, how such inertia is not perceived by actors as a constraint, given that the aim of actors is

precisely to host, interpret, and carry on that particular practice.

Here we witness the power of practice, states the author, and, I would add, the way power is understood in practice theories. Traditional sociological approaches frame power as “an object, generally as a capacity of a person, institution or other social actor” (Watson, 2016, p. 170). In practice theories, on the contrary, power is always relational so that it needs to be performed and enacted: power only has reality so far as it is manifested in moments of human action and doing (*Ibidem*, p. 171). From this point of view, one could argue that practice theories are all about power (*Ibidem*), in that power is seen as a property of social relations. Not surprisingly, the intellectual heritage of practice theories is grounded in the work of authors who have always dedicated explicit attention to power relations (such as Marx, Foucault or Bourdieu).

At the same time, practice theories have often been criticized for dissolving power into micro relations and interactions. This seems to me the old remark that mainstream sociological approaches have typically addressed to phenomenological and interactionist perspectives and, later on, to postmodernism. It would be out of place to engage in such a debate for this short essay, but I would like to simply state that from my understanding of practice theories, power is a practice in itself. Not only that, it could be argued that “power” (like “gender” or “capitalism”) is one of the very basic practices through which our society is produced and reproduced (or “structured” in more traditional terms). We learn power as an intrinsic dimension of the social world. As such, we also learn how to perform power in every domain and space of social life: at home, at school, at work, in the street, at the restaurant, and so on. Performing power, we become practitioners of it, and the more we practice it, the more we become expert in mastering the process, as for every practice. But practices can be performed differently, and this is where our responsibility as active subjects lies.

References

- Brown, J.S., & Duguid, P. (1991). Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning, and Innovation. *Organization Science*, 2(1), 40–57. <https://doi.org/10.1287/orsc.2.1.40>
- Callon, M. (1986). The Sociology of an Actor-Network: The Case of the Electric Vehicle. In M. Callon, J. Law, & A. Rip (Eds.), *Mapping the Dynamics of Science and Technology* (pp. 19–34). London: Palgrave MacMillan.
- Cook, S.N., & Brown, J.S. (1999). Bridging Epistemologies: The Generative Dance between Organizational Knowledge and Organizational Knowing. *Organization Science*, 10(4), 381–400. <https://doi.org/10.1287/orsc.10.4.381>
- Czarniawska, B. (2015). After Practice: A Personal Reflection. *Nordic Journal of Working Life Studies*, 5(3), 105–114. <https://doi.org/10.19154/njwls.v5i3a.4836>
- Domaneschi, L. (2019). The Sociomateriality of Cooking. The Practice Turn in Contemporary Food Studies. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9477>
- Feldman, M.S., & Orlikowski, W.J. (2011). Theorizing Practice and Practicing Theory. *Organization Science*, 22(5), 1240–1253. <https://doi.org/10.1287/orsc.1100.0612>
- Gherardi, S. (2000). Practice-Based Theorizing on Learning and Knowing in Organizations: An Introduction. *Organization*, 7(2), 211–223. <https://doi.org/10.1177/135050840072001>
- Gherardi, S. (2016). To Start Practice Theorizing Anew: The Contribution of the Concepts of *Agencement* and Formativeness. *Organization*, 23(5), 680–698. <https://doi.org/10.1177/1350508415605174>
- Knorr-Cetina, K.D. (1981). *The Manufacture of Knowledge: An Essay on the Constructivist and Contextual Nature of Science*. Oxford, New York: Pergamon Press.
- Latour, B., & Woolgar, S. (1979). *Laboratory Life: The Social Construction of Scientific Facts*. Los Angeles, CA: Sage.
- Latour, B. (1987). *Science in Action: How to Follow Scientists and Engineers Through Society*. Cambridge, MA: Harvard University Press.
- Law, J. (1987). Technologies and Heterogeneous Engineering: The Case of Portuguese Expansion. In W.E. Bijker, T.P. Hughes, & T.J. Pinch (Eds.), *The Social Construction of Technical Systems: New Directions in the Sociology and History of Technology* (pp. 105–128). Cambridge, MA: MIT Press.
- Lave, J., & Wenger, E. (1991). *Situated Learning. Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Lynch, M. et al. (1983). Temporal Order in Laboratory Work. In K. Knorr-Cetina & M. Mulkay (eds.), *Science Observed. Perspectives on the Social Study of Science* (pp. 205–238). Beverly Hills, CA: Sage.
- Magaudda, P., & Piccioni, T. (2019). Practice Theory and Media Infrastructures: “Infrastructural Disclosures” in Smartphone Use. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9469>
- Reckwitz, A. (2016). *Kreativität und soziale Praxis. Studien zur Sozial- und Gesellschaftstheorie*. Bielefeld: Verlag.
- Schatzki, T.R., Knorr-Cetina, K., & von Savigny, E. (Eds.) (2001). *The Practice Turn in Contemporary Theory*. London: Routledge.
- Star, S.S. (1999). The Ethnography of Infrastructure. *American Behavioral Scientist*, 43(3), 377–391. <https://doi.org/10.1177/00027649921955326>

- Suchman, L., Blomberg, J., Orr, J.E., & Trigg, R. (1999). Reconstructing Technologies as Social Practice. *American Behavioral Scientist*, 43(3), 392–408. <https://doi.org/10.1177/00027649921955335>
- Volonté, P. (2019). Modelling Practice: The Inertia of Body Ideals in the Fashion System. *Sociologica*, 13(3). <https://doi.org/10.6092/issn.1971-8853/9490>
- Wacquant, L. (2004). *Body and Soul: Notebooks of an Apprentice Boxer*. Oxford and New York: Oxford University Press.
- Watson, M. (2016). Placing Power in Practice Theory. In S. Hui, E. Shove, & T. Schatzki (Eds.), *The Nexus of Practices: Connections, Constellations, Practitioners* (pp. 169–182). London: Routledge.
- Whalen, J., Whalen, M., & Henderson, K. (2002). Improvisational Coreography in Teleservice Work. *British Journal of Sociology*, 53(2), 239–258. <https://doi.org/10.1080/00071310220133322>
- Whittington, R. (1996). Strategy as Practice. *Long Range Planning*, 29(5), 731–735. [https://doi.org/10.1016/0024-6301\(96\)00068-4](https://doi.org/10.1016/0024-6301(96)00068-4)

Attila Bruni: Department of Sociology and Social Research, University of Trento (Italy)

ORCID <https://orcid.org/0000-0002-4561-0780>

✉ attila.bruni@unitn.it; <http://www.soi.unitn.it/staff/attila-bruni/>

Attila Bruni is Associate Professor at the Department of Sociology and Social Research of the Trento University, where he teaches Sociology of Organizations and Sociology of Technological Phenomena. He has been President of the Italian Society for Science and Technology Studies (<http://www.stsitalia.org>) between 2010 and 2013, and member of the Council of the European Association for the Study of Science and Technology (<http://www.easst.org>) between 2010 and 2018. He is actually the coordinator of the Research Unit on Communication, Organizational Learning and Aesthetics (<http://www.unitn.it/rucola>) of the Department of Sociology and Social Research of the Trento University.