In Other Words: Writing Research as Ethico-onto-epistemic Practice

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Abstract: This paper aims to uncover the agential character of writing research in the light of the concept of ethico-onto-epistemology. Theoretically, it unpacks the debate around reflexivity and the performativity of theories and methods, underlining the active role of writing research accounts that do not just "capture" the world, but rather enact multiple worlds. This argument is developed with the support of empirical accounts belonging to an ethnographic study in a telecommunication company, which are informed by conceptual sensibilities from STS and Feminist Science Studies intended as two related yet distinct theoretical frameworks. I conclude by arguing that taking up the call for ethico-onto-epistemology when writing research accounts call us to trouble the character of writing as a neutral practice, and to grapple with the power of *accounting for* – thus producing – multiple realities that differ in terms of epistemological, ethical and political relations.

Keywords: writing research; qualitative methods; Feminist Science Studies; STS; reflexivity; performativity.

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1. Introduction

Science and Technology Studies (STS) have a strong history of accounting for the epistemic practices behind the production of technoscience as well as of reflecting on its own practices of knowledge production. The account for its own practices of knowledge production is a long-standing concern in STS since its origins, with the introduction of 'reflexivity' among the basic tenets of the Sociology of Scientific Knowledge (SSK) (Bloor 1991).

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The debate around reflexivity has been addressed from different perspectives – by pointing out that the patterns of explanation employed to account for technoscientific practices would have to be applicable to sociology itself (Bloor 1991), by stressing the issue of 'representation' and its practices (Woolgar 1988a; Lynch 1994), by describing the role of the STS researcher as 'the stranger' (Latour and Woolgar 1986; Shapin and Schaffer 1985), by advocating different configurations of knowledge expression (Bowker 2014) – and criticized within STS itself (Pinch 1993; Lynch 2000).

More recent approaches have stressed the performative character of social inquiry and methods (Law and Urry 2004), according to which research methods generate not only representations of reality, but also the realities those representations depict. This is not just a pure epistemological concern – i.e. assessing the conditions of STS knowledge production – as the principle of reflexivity outlined by Bloor (1991) points out, but a political one insofar as it urges to focus on the consequences and ontological implications of doing research and coming to know. It is not by chance that Annemarie Mol (1999) has phrased such understanding of theories and methods in terms of 'ontological multiplicity', namely the argument by which reality is done and enacted through specific material-semiotic practices rather than simply observed. Such and understanding of reality has been framed in terms of 'ontological politics' insofar as it calls into question the political character of social methods.

This interpretation of social research is close to what John Law (2009) has defined as 'interference', namely the act of making differences by means of descriptions and knowing practices. According to Law, feminist thinking has challenged the absence of radical politics in mainstream STS – such as SSK and Actor-Network Theory (ANT) – by showing the extent to which making knowledge means making difference, that is interfering with the object of the study. In this respect, feminist physicist Karen Barad argues that "'each of us' is part of the intra-active ongoing articulation of the world in its differential mattering" (Barad 2007, 381), pointing out that we make particular cuts through our methods and we need to acknowledge that these cuts are performative, and that other cuts are possible. This argument has important ontological and ethical implications which Barad has phrased through the concept of 'ethico-onto-epistemology', a compound word that appreciates the intertwining of ethics, knowing and becoming. What happens if we put Barad's call for ethico-onto-epistemology at work?

In this article I shall attend this question by focusing on the practice of writing research. More specifically, I shall provide and discuss empirical accounts drawn upon two years of ethnographic study in a telecommunication company. I will present four excerpts from ethnographic notes that I have written as informed by two related yet different conceptual sensibilities, STS and Feminist Science Studies[1], thus uncovering different ethnographic postures. A brief illustration of the debate around

reflexivity and the performativity of theories and research methods in STS precedes the empirical part along with a discussion regarding how the agential character of research writing constitute a fruitful research topic within this debate, with particular reference to the concept of 'ethi-co-onto-epistemology' (Barad 2007).

The contribution of the paper is twofold. On the one hand, I aim to unpack the debate around the performativity of theories and methods in the light of the practice of writing research; on the other hand, I shall bring the theoretical discussion into the empirical realm with examples of ethnographic accounts in order to argue for the importance of research writing as both knowledge-making and world-making practice.

2. From Reflexivity to Ethico-onto-epistemology: Feminist Science Studies Confront STS

Since their inception, STS grounded its intellectual roots into the critical commitment towards the constructive nature of technoscientific facts. One of the most significant threads that links the various strands of STS together is thus the acknowledgment that the production of technoscientific knowledge is a social and historical situated process. The principles of 'reflexivity', 'symmetry', 'impartiality' and 'causality' (Bloor 1991), set out by the so-called Strong Programme in SSK, have definitively stressed the importance of studying the very content of science as a social domain.

According to Bloor, being STS concerned with the account of the patterns of explanation which produce beliefs or states of knowledge (without any real differentiation between internal and external causes), that would also be the case for the accounts of technoscientific practices crafted by STS itself. The formulation of 'reflexivity' aims precisely to recognize such position as "an obvious requirement of principle because otherwise sociology would be a standing refutation of its own theories" (Bloor 1991, 7).

Since this first formulation, the concept of 'reflexivity' has triggered a sparkling debate within STS, with a number of different positions and perspectives[2]. Steve Woolgar (1988a), for example, articulates the distinction between 'introspection' and 'constitution reflexivity' by drawing insights on Harold Garfinkel's work. According to Woolgar, at the base of the discussion about reflexivity in and of sociological accounts of scientific work there is the problematic distinction between research methods and research object, an issue on which natural sciences and a large part of social sciences share the same view. As we shall see in the next section, the same concern about research methods and the conditions of textual production affects those ethnographic studies that set up the so-called 'linguistic turn' in anthropology (Marcus and Cushman 1982; Clifford and Marcus 1986).

Additionally, the debate around reflexivity problematizes the alleged detachment of the researcher from his/her field of inquiry, arguing that the presence of the researcher strongly affects the field where s/he is situated. This concern has been mentioned in notable STS works (e.g. Latour and Woolgar 1986; Shapin and Schaffer 1985) by describing the researcher playing the role of 'the stranger'. At the basis of such issues lies the relationship among researcher, subjects and objects of research, which, in turn, unveils different understandings of objectivity and knowledge production.

The situated and embodied character of knowledge production and the related critique of objectivity intended as the core mark and value of scientific authority have been deeply unpacked by feminist thinking. Perhaps the most popular text in this regard is the seminal essay by Donna Haraway (1988) on "situated knowledges" and the "privilege of partial perspective", in which, among other things, she introduces the figure of the "god-trick" to emphasize the pitfalls of both relativism and totalization, regarded as "twins" in the ideology of objectivity.

Against this backdrop, Feminist Science Studies (i.e. Harding 2011) take exception to the original formulation of reflexivity and impartiality as developed by the Strong Programme and social studies of science more in general, as they aim to mark out a reality that is not a premise of the representational nature of knowledge, but that is transformed through material-discursive practices. As Rouse (1996) points out, Feminist Science Studies have provided a more nuanced understanding of 'reflexivity' and its epistemic, rhetorical, and sociopolitical implications, arguing that knowledge is constructed as multidimensional relationships between knowers and knowns, rather than a simple relation of representation. This concern has also been phrased in term of "plain reflexivity" and "responsible reflexivity" as delivered by STS constructionist approaches and feminist epistemologies respectively (Lohan 2000). The equal consideration of epistemic and political issues as well as the concern to make knowledge more adequately accountable lead feminist scholars to conceive writing and speaking as forms of action that produce consequences on subjects and objects involved. Accordingly, in response to the notion of reflexivity as developed by constructionist approaches, Haraway (1997) counterpoises another optical metaphor – that of 'diffraction' – in order to underline the performative character of knowledge-making intended as world-making practices. Unlike reflection (and reflexivity), Feminist Science Studies (Haraway 1997; Barad 2007, 2003) have emphasized the mutual enactment of subjects and objects of research, moving beyond self-referential statements that, according to Haraway, resist to making strong knowledge claims and a difference in the world.

Barad (2007) borrows from Haraway the metaphor of diffraction in order to highlight the emergence of realities that are dependent on (more than) human activities and transformed through material-discursive practices. Unlike constructivist approaches, the focus here is not on the ways

whereby facts are constructed through rhetoric and inscription devices (Latour and Woolgar 1986) or on a reality that is "out there" and that the social scientist has to investigate without being in the action, finite and dirty (Haraway 1997, 36); rather, the ontology that Barad and Haraway point out is informed by the principle of responsibility, therefore it reminds to the "ontological politics" discussed by Mol (1999) insofar as it uncovers the ethical significance of research practices and the entanglement of epistemological, methodological and ethical issues typical of feminist critique. Here it is important to stress the fact that the notion of diffraction does not reject the notion of representation, but it invites to consider representations as performative in that they are constituted by meaning and matter, and have the power to interfere with the world's becoming (Timeto 2016).

The concept of 'ethico-onto-epistemology' developed by Barad serves precisely to argue that how we practice our research (epistemology) is constitutive of what becomes enacted as knowledge (ontology), and "therefore, we are not only responsible for the knowledge that we seek but, in part, for what exists" (Barad 1999, 7) (ethics). The value of bringing such a broad concern to bear on the specific practice of writing research lies in its capacity to uncover the agential and world-making power of the mundane practices – such as writing – informing the construction of knowledge. As Rouse puts it: "Observing, writing, and reading are not merely proposing or accepting the content of certain beliefs, but are themselves actions with consequences (one must consider to whom one writes, in what language, available to whom, drawing upon what patterns of interaction, using what narrative conventions and authorial stances, and who is permitted to respond, with what effects)" (Rouse 1996, 203). It is precisely such an understanding of writing – as a research practice that intersects epistemological, ontological, and ethical issues – that inform the four ethnographic postures presented in the following sections. (see section 4).

In what follows I will try to unpack the research question "what happens if we put Barad's call for ethico-onto-epistemology at work?" by discussing the practice of writing research, with particular reference to the concept of 'ethico-onto-epistemology'.

3. Ethico-onto-epistemology and the Practice of Writing Research

STS reflection on research methods has provided compelling reflections on the issue of research writing (Law 2004; Lury and Wakeford 2012).

Early concerns about research methods and the conditions of textual production affect those ethnographic studies that set up the so-called

'linguistic turn' in anthropology (Marcus and Cushman 1982; Clifford and Marcus 1986). These authors criticize the conventions of the realist genre that draws a clear line between the observer and the subject/object of research, so evident in the accounts provided by classical anthropologists such as Malinowski. In this case, 'the text is a neutral medium for conveying pre-existing facts about the world' (Woolgar 1988a, 28), such as the exotic characteristic of the subjects under scrutiny regarded as inner qualities rather than a symbolic construction. Moreover, the performative character of social research applies to writing as well according to Emerson *et al.* (2011), so that not only a writer's theoretical stance influences compositional choices, but the reverse also happens: writing styles reflect a theoretical orientation. Such mutual influence between theories and writing is differently articulated in the four ethnographic postures discussed in the following sections (par. 4.1, 4.2, 4.3, 4.4), which show how different epistemologies inform different modes of writing as much as different modes of writing resonate with specific theoretical sensibilities. The emphasis on the constructed character of ethnographic writings, conceived by postmodern anthropology as the product of the research rather than as a method (Marcus and Cushman 1982), leads us to envisage ethnographic accounts, as well as scientific work, as a matter of 'bricolage' (Lévi-Strauss 1962), a crafted product that makes visible some of the many realities at stake.

A similar spirit informs one of the most popular writing experiments in STS, that is Bruno Latour's book *Aramis, or the love of technology* (1996). It develops a hybrid literary genre called "scientifiction" as a result of the fusion of three distinct literary genres – the novel, the bureaucratic report, and the sociological commentary – in order to investigate the reasons behind the failure of Aramis, a project of a guided-transportation system carried out by RATP, the public transport authority for Paris. According to Latour, such a hybrid account, which is set up as a detective novel revolving around the mystery of "Who killed Aramis?", is meant to bring a technological object into the center of the narrative and to bring three different target audiences together: humanists, technologists, and social scientists.

Law (2004) takes a step forward in this debate by making a distinction between academic writing and novel writing. He argues that the distinction concerns means and ends, in that novels are ends in themselves and they make use of language as a world-making practice, whereas academic writings are means to other ends (namely a reality that is "out there" to be described and referred to). In observing how the writing of poetry and novels cannot be dissociated from what is being made, Law asks: "if we had to write our academic pieces as if they were poems, as if every word counted, how would we write differently?" and "how, then, might we imagine an academic way of writing that concerns itself with the quality of its own writing?" (Law 2004, 12). The understanding of writing provided by Law reflects a broader argument concerning the enactment of multiple

realities that the act of writing performs, and the consequent acknowledgement that writing, as a central feature of methods, is not innocent or purely referential. To rephrase Law (2004), writing does not 'report' on something that is already there. Instead, in one way or another, it makes things more or less different, and these different arrangements have political implications because they could be otherwise.

According to Law (2004), feminist writing (Haraway 1988, 1997; Mol 2002) has demonstrated the fluid, fractional, multiple, indefinite and active nature of realities, and, in doing so, it has showed how to write (label, name, classify) means to enact some realities and, accordingly, setting up a class-politics of ontology that the scientific system typically regards as objective and universal. In the case of the workplace ethnography presented in this paper, the political aspect of research writing (Marcus and Cushman 1982) lies in the challenge of making work practices visible from different positions, rather than providing a single-issue account from a supposed neutral stance (Suchman 1995). In this respect, Haraway (2013) has often recalled the impact of science fiction literature on her education and storytelling practice, arguing that writing and research are tightly coupled as they both require the factual, the fictional, and the fabulated. This claim seems to evoke Law's distinction between academic writing and fictional writing, and the call to imagine an academic way of writing that concerns itself with the quality of its own writing. STS ethnographer and poet Laura Watts (2009) have exemplified this blend of factual, fictional, and fabulated elements by elaborating two different stories based on the same ethnography of the mobile telecoms industry in order to enact two different methods: the first one is a reflective critique of the future in the industry, the second one is a generative and inventive interference. In doing so, Watts argues that storytelling is always a social, material and political practice, and that arguments and critical accounts are also a story with a particular literary form. Therefore, it matters what version of the story is told, being storytelling a means to construct knowledge, and being knowledge a situated construction of multidimensional relationships between knowers and knowns (Rouse 1996).

In the light of these reflections, in what follows I shall present four excerpts drawn upon fieldnotes written during an ethnographic research I conducted in an Italian telecommunication company for two years. I will begin by briefly describing the research setting and questions, the theoretical approaches that informed my research, and the performative role that such conceptual sensibilities play in shaping the writing.

4. Passic TV: Humans and Non-humans Between STS and Feminist Science Studies

Passic TV is an Italian company that delivers an on-demand streaming TV service within the broader business of Passic Mobile. Passic Mobile is a branch of Passic Network, an Italian ICT company which provides telephony services, mobile services, and DSL data services. Its headquarters are based in Rome and Milan, and it has many branch offices in several Italian cities. The company has several internal divisions, services and international partnerships.

The research I conducted in Passic TV focused on the work of a specific group – "the production team" as it is called within the organization – and the related development of a digital tool (a content management system) to support collaborative work. The design of this tool has uncovered not just technical concerns, but conflicts and tensions among different groups as well as the controversial role played by material artifacts in the process of organizing.

The ethnographic study – which comprised observations, interviews, attendance to meetings, informal conversations, and visits to the different offices of Passic TV located in Rome – unfolded over a span of 18 months, which I mostly spent by attending the work of the production team. At the time of the research, the groups consisted of 10 people with different roles (content editors, project, product, content traffic managers, and engineers). The work that the production team carries out is rather technical-based and consists of encoding contents (movies, TV series, documentaries, etc.), namely converting audiovisuals into different profiles according to the specificities of different devices (decoder, Android, Xbox and Apple) on which Passic TV runs.

During my participation at the first weekly meeting of the team, I identified two main organizational tasks involving the group: the development of an automatic encoding systems for contents and the design of a tool for workflow management. As I came to learn later in the fieldwork, these projects are interrelated as the tool, besides being a database of contents' information, was supposed to work in order to assemble the final product, namely to put the multimedia encoded and its editorial data together. Accordingly, the tool was later conceived to take over the human tasks of adding editorial data (e.g the title of the content, year, director, etc.) to the multimedia.

As the theoretical setup of my research was informed by the aim to explore the relationship between STS and Feminist Science Studies empirically, my ethnographic journey within Passic TV gave me the opportunity to focus on the role of the information infrastructure in shaping the cooperative work practices among different organizational groups. The analysis of the literature on Workplace Studies (Heath and Luff 2000; Suchman et al. 2002) and my first approach to the field have spurred the

following questions: what is the role of material artifacts in the process of organizing? What kind of and in what ways do feminist concerns emerge from the investigation of technology in organizations?

In attending such questions empirically, I increasingly realized the extent to which doing fieldwork with neighbouring, yet different, conceptual sensibilities poses different concerns and informs different ethnographic postures, thus enacting multiple and different realities (Mol 1999; Law and Urry 2004; Barad 2003). Such process of enactment inevitably involves the practice of research writing, being it the fundamental means through which delivering data, accounts, and the overall research experience.

The excerpts from fieldnotes presented below aim to pinpoint the heterogeneity of such research engagement as it has unfolded by following inputs and concepts from two conceptual approaches (STS and Feminist Science Studies), which affected both the type of content and the form of writing of the accounts.

The four excerpts presented here focus on the invisibility of the researcher as a "modest witness" (that is, according to Haraway, the androcentric stance that guarantees objectivity), the researcher as an active actor in the field, the "view from above", and the writing of passions. As we shall see, these issues materialize into different forms as result of different ethnographic postures, and, conversely, different styles of writing allow these distinct issues, as informed by distinct conceptual sensibilities, to materialize.

As the excerpts belong to the same ethnographic study, it is worth clarifying that they do not epitomize different literary genres; rather, they present different linguistic and discursive elements (e.g. passive verbs, personal pronouns, comparisons) that engender different ethnographic postures and forms of knowledge production and, accordingly, different realities that matter from an epistemological and ethical point of view. The excerpts are presented alternately, so that the first and the third ones are framed within a STS framework, whereas the second and the fourth ones are informed by Feminist Science Studies sensibilities.

4.1 Invisibility: the researcher as "modest witness"

The first excerpt refers to the early days of my ethnography in Passic TV, when I came to approach for the first time different places and people. These encounters prompted the writing of various accounts with descriptions of the internal and external appearance of the places that constituted the setting of the research, along with the routine actions that I learned to carry out in order to get access to Passic offices:

> The building in A street is very large, part of a larger whole. Even in this case it is a facility located at a bottom of a secondary street, not immediately visible from the main road. Unlike the

place in B street, the indoor environment appears bare, dark and sparsely populated: the building seems to be much larger compared to the number of people that actually contains. (Fieldnote)

Upon my arrival at the Passic headquarters, I call Dario [project manager and my gatekeeper] as agreed and I wait for him outside the building. The structure looks very large, consisting of several blocks and several floors, even if it is located in a non-central and not very visible part of the city. The giant Passic logo that stands at the top of the building is in fact visible only after traveling several hundred meters from the entrance of A street (where the headquarters are located).

To gain access to the offices, it is necessary to stop at the reception, register, release a document and tell the name of the person (a Passic employee) under whose responsibility the guest is admitted. After obtaining the guest badge, I pass the turnstiles and go to the auditorium, on the lower floor of the building, where the company meeting is about to start. (Fieldnote)

These notes contain a plain description of the human and material environments characterizing Passic TV. The writing stands on a denotative level, as it means to draw a direct and literal link between a signifier (e.g. "street") and its referent. The articulation of writing, therefore, is not meant to elicit particular meanings, allusions and feelings, even in the presence of qualifiers (e.g. "bare, dark and sparsely populated") that, in this case, are used according to a reporting style in order to collect data characterized by the lack of personal opinion and beliefs.

4.2 The researcher as an active actor in the field

These extracts from fieldnotes refer to my early interaction with the workers of the production team (first one) and to a particular event happened after the first year of the ethnography (second one). Both concern the theme of the researcher as active actor in the field, which have been explored in several ethnographic studies of organizations (i.e. Bruni, Gherardi and Poggio 2005). The first one accounts for what happened during my first interaction with Silvia (the coordinator of the production team at that time, then content and multimedia manager) when I asked her some preliminary information regarding the configuration of the technical infrastructure in Passic TV, which Silvia sketched on a sheet of paper.

As I got to learn later on during the fieldwork, this sketch represents just a part of the whole technical system that supports contents processing and their release on the different devices. Rather, this visual representation became a matter of concern to me because, after that meeting, Viviana – who is the oldest member and the newcomer of the team – approached me asking if I could show

her the sheet of paper wherein Silvia sketched the technical sys-
tem. Intrigued by such request, I asked her about the reasons of
such a request. She answered that, as she was new to that group,
she had not the chance to get a full picture of the organizational
structure of Passic TV yet. (Fieldnote)

This note shows the set of unexpected events that an informal conver-
sation can trigger. The question about the functioning of the technical
infrastructure happened in fact right before the beginning of the weekly
meeting involving the production team. Nevertheless, the detailed de-
scription of the technical infrastructure that Silvia sketched became a
matter of concern (Latour 2008) as, through that, I came to learn about
the peripheral participation (Lave and Wenger 1991) of Viviana (project
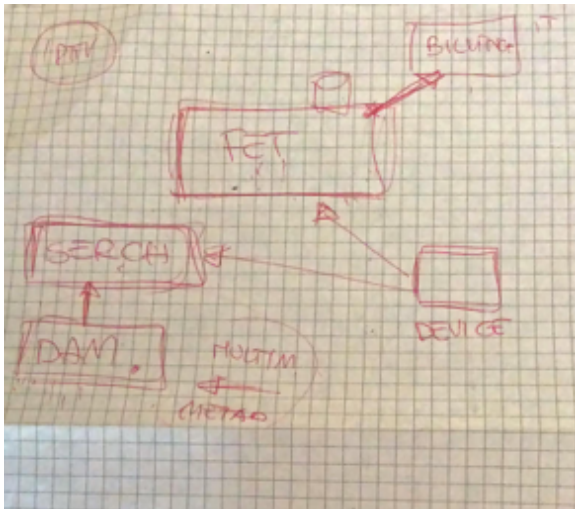manager), which I then decided to further explore by asking her an inter-
view.

Figure 1. Sketch of technical infrastructure

If the note just described refers to my early days of research in Passic
TV, the following extract accounts for a particular event happened after
the first year of the ethnography, involving Carlo, the Web developer,
who was initially managing the development of a content manage system.

At this point Carlo jumps into the conversation, asking for
clarifications on the research I am doing in Passic. He is interested
in knowing the real reason why I am there. The question is legiti-
mate but unexpected, so I try to better understand. He tells me

that he would not be surprised if my work were also a consulting activity for the company, given the changes at the top in the last period. Carlo specifically asks me: "Is what you are doing here concerning your PhD project or is it connected to some other reason?". He does not have an inquisitorial tone, it seems to me he is more interested in clarifying his doubts.

I answer that my research in Passic only concerns my PhD, trying to use words and arguments that can support this statement. I explain again (I already interviewed Carlo as the developer of a computer-supported cooperative work platform, that they call "tool") that I am interested in understanding how the internal technical infrastructure works, following the development of the tool in particular. Carlo replies that even such an interest, together with the questions I asked him in the interview, concern the work dynamics and activities. I reiterate that my research concerns only my PhD as a way to reassure him, even if I do not think he needs reassurance. (Fieldnote)

A few weeks after this conversation with Carlo…

It's a long time since I don't see Carlo in the office. When we go for lunch at the canteen, I have the chance to talk with Silvia, who, during the weekly meeting, has hinted at the corporate restructuring and some changes at the top, and their impact on the work of the production team. Silvia also tells me that the developer of the tool has been replaced, there is a new person coming from a consulting company which, according to her, holds another approach to the work to be done on the tool, a better one than the one of Carlo according to Silvia.

This news reminds me to the last conversation I had with Carlo a few weeks ago. I remember his questions about the reason behind my work and my presence there, and, although I told him the truth, I cannot help think that he might have blamed my research work for the termination of his job at Passic. (Fieldnote)

These notes point out how the presence of the researcher in the organizational routine is not only a source of small incidents that make the observation substantially different from that of 'a fly on the wall' (Bruni, Gherardi and Poggio 2005), but it can also be controversial, if not painful. The recognition that the presence of the researcher – with her body, appearance, gestures, discourses and the interactions these may trigger – can be troubling as well as a source of unexpected events affecting other actors in the field suggests that the ethnographic account is not constructed as simple relation of representation and correspondence, but as a form of action producing consequences on subjects and objects involved (Lohan 2000).

4.3 The view from above: linear thinking and writing

The following two excerpts of fieldnotes concern that part of my research that was specifically devoted to the understanding of the overall functioning of the technical infrastructure as well as of the daily work of the production team. The first extract refers precisely to the troubles that an apparently simple operation, such as that of naming a file, can generate:

> If Ludovico [content editor] describes the operation of putting a name to file as an apparently naïve operation, in the words of Laura [service development manager] such convention of practice becomes problematic when the naming assigned by Ludovico and his colleagues does not coincide with the naming in the program schedule. (Fieldnote)

On the other hand, the following note reports a conversation I had with Carlo (Web Developer) regarding a new feature to be implemented into the tool:

> Carlo and I continue our conversation talking about updates on the development of the tool. What attracts my attention is a new feature that is being implemented on the tool. Carlo tells me about a script that one of their colleagues developed to improve the performance of the entire work chain, from the tool to the end-user. I think this information is interesting, so I ask Carlo to better explain me. Carlo tells me that it is a script that enables a function to search for content starting from data coming from Passic users' decoders. In this way, Carlo says, the control of quality over the content improves considerably since it will be even more rare to run into errors such as, for example, the failure to publish content (e.g. an episode of a television series). This technical innovation reminds me of one of the first conversations I had with Dario regarding the use of big data to improve the customer service. Actually, that conversation with Dario concerned the use of data generated by users for marketing purposes, but, in hindsight, I think what Carlo tells me has to do with the same issue, as the script they are developing builds on the data produced by the user experience on Passic devices. (Fieldnote)

If the notes in the previous section uncover a process of learning and writing that is embodied and mediated by the subjectivity of the researcher, these two fragments construct a mode of thinking as objective and detached, which follows a "logic of discovery" rather than a "power-charged social relation of conversation" (Haraway 1988). Here the researcher plays the role of 'the stranger' (Latour and Woolgar 1986; Shapin and Schaffer 1985) since she appears to be only interested in discovering the functioning of organizational processes, without any bodily

and emotional involvement. This posture results in a disembodied account because the researcher, although holding an active reflective stance, is interested in providing plain descriptions that do not problematize the relationship among researcher, subjects and objects of research.

4.4 Writing passions: the problem of access

The following account reports about one of the most popular issues concerning ethnography, that is the access into the field. It specifically concerns my first day of fieldwork and the consequences occurred after I incidentally arrived late to the scheduled appointment:

> Today, at 2 pm, there is an important meeting in which the chief of Passic Entertainment will be outlining major plans and objectives for the year in front of all the organizational groups. Given the importance and rarity of general meetings such as this one, Dario [my gatekeeper] has thought it could be a good way to start my research. The appointment is scheduled at 1:20 pm, 40 minutes before the meeting starts, since he has also arranged a brief introduction of myself and my work to two women executives: the chief of Passic TV and the chief of Passic Entertainment. I have been given some background information about them, so I am somewhat prepared for the day, yet I cannot help but feel a sense of uneasiness, because this is my first day of my first ethnography and I am about to approach two executives without having in mind a clear design of my study.
>
> Since the office is quite far from my house, I have checked the directions out so as to make sure to get to the place on time. According to Google Maps, the trip to Passic office will take around 45 minutes with the scooter. I then decide to leave quite early at 11:45 as in Rome it is likely to get lost in unfamiliar areas or, at least, that has been my experience so far. If I get lost – I think – I will have time to work it out and be on time.
>
> [...] After some kilometres, I decide to make a stop and check directions online: the road is quite large and there is no one to whom I can ask for information as I usually do. The place seems quite close to where I am. I look at the clock, it's 12:45: I can make it. I drive for further 5 minutes, but there is no sign of car dealerships and I have the sense of having gone too far. I'm getting nervous, I don't want to call Dario because I don't want he thinks I'm not able to arrive just by myself, but it's 1:10 pm and our appointment is at 1:20 pm, so I have to ask him. [...]
>
> When the appointed time comes, I am still on my scooter, finding the way to reach my field. I am more than annoyed. In years of job meetings, interviews, important appointments – I think – I have always arrived earlier. Today is the first day of field research of my PhD, I have to meet for the first time two people who are very influential for my work, and I'm late…

> I arrive eventually, around 1:40 pm, still in time for attending the meeting, but not for talking with the two women. I feel overtly embarrassed because I think that what has happened is a bad mark on my credibility and, above all, I feel ashamed for having put Dario, my gatekeeper, in a negative light with his bosses. (Fieldnote)

As Barbara Czarniawska notes (1998; 2004), the problem of physical access is well known in organization research and it has nothing to do with age or experience. It nonetheless points to a critical issue of organizing, that is 'logistics', which requires people and things to be in the right place at the right time. In reading the above fieldnote, I also acknowledge the feeling of vulnerability and fear of entering an "alien landscape" (Czarniawska 1998; 2004). This is all the more significant as, according to outstanding ethnographic examples (i.e. Reinharz and Davidman 1992), female researchers usually have an easier time than men in accessing mixed-gender field sites. As Czarniawska points out (1998; 2004), the fact that fieldwork is major threat to the identity of the researcher is not a very common topic in discussing field methods perhaps because the feeling of "being threatened" is at odds with the image of a mature adult and a competent professional. What I did not know at the time was that such feeling of uneasiness was not a methodological bug, but rather a field material and a source of knowledge, to become later an actual research strategy. In fact, shortly after the beginning of my ethnography in Passic TV, I have started to recognize that 'instability' and 'unpredictability' would have been two distinctive words by which to pattern my research experience. The ever-changing environment in which I worked allowed me to understand gaining access as a relational process (Feldman, Bell and Berger 2003) and a form of emotional labor (Blix and Wettergrenthat 2015), which that include self-representation, building and nurturing relationships as well as dealing with rejections, uncertainties and breakdowns.

5. Discussion: Writing Research as Ethico-onto-epistemic Practice

The extracts of fieldnotes presented in this paper invite to pay attention to the material and ontological implications of knowing practices (Mol 1999; Law and Urry 2004; Barad 2003, 2007). Being my overall research guided by the understanding of theories and methods as performative (Mol 1999; Law 2004; Law and Urry 2004), I sought to stay sensitive to such an understanding while conducting my ethnography; at the same time, such an approach to theories and methods as generative materialized during the ethnography in different postures as means to shed light on issues that otherwise would have remained invisible.

The excerpts presented and discussed account for typical issues in organizational ethnographies, such as the description of places and routines, the role of the technical infrastructure and the different degree of participation of actors in their communities of practices, and the problem of access. These have been thematized according to the conversation and tensions between the two related, yet distinct, conceptual sensibilities that inform the research (STS and Feminist Science Studies). As a result, they uncover different themes such as the researcher as a "modest witness", the researcher as an active actor in the field, the "view from above", and the disclosure of passions, which, in turn, take shape through different ethnographic postures and styles of writing that are an essential part of such conceptual setup. Indeed, the use of different linguistic and rhetoric tools such as passive verbs, personal pronouns, comparisons are not merely communicative instruments that convey a neutral content and meaning, but active practices that shape different forms of knowledge production that are not neutral as they matter from an ethico-epistemological point of view. Emerson, Fretz and Shaw (2011) captured the constructed and agential character of ethnographic fieldnotes with the expression "writing up" (rather than "writer down") insofar as "just as the ethnographer-as-observer participates with members in constructing a social reality, so too the ethnographer-as-writer creates the world through language". In doing so, I have tried to attend the call to imagine an academic way of writing that concerns itself with the quality of its own writing (Law 2004). As the ethnographic excerpts show, attending the quality of research writing means, in the first place, to interrogate the authorial stance that can craft knowledge in different forms, as either partial, finite and dirty (Haraway 1997) or as bearer of a supposed detached and neutral point of view.

Such an acknowledgement allows us to interrogate and value the character of our writing practices as a meaningful component of our theoretical and methodological apparatus in that they may (or may not) address and affect different audiences, with different consequences. In this respect, Brit Ross Winthereik and Helen Verran (2012) offer a compelling discussion of the crafting character of knowing practices, with a specific emphasis on ethnographic stories based on STS research cases. Drawing on feminist-informed notions, such as Strathern's 'partiality' and Haraway's 'double vision', the authors grapple with the question of how to write ethnographic stories and make generalizations upon them. The main assumption behind such concerns is an ethical one, that is the acknowledgement of the agential character of ethnographic stories, inasmuch as they are "*generative* for the people and practices that the stories are about" (Winthereik and Verran 2012, 37, emphasis in original). In mobilizing the notions of 'partiality' and 'double vision', the authors seek to call into question the dualism between a traditional academic perspective that regards research as non-interventionist and its opposite, namely the engaged and interventionist research. Against this background, partial

perspective and double vision suggest that the stories we write "are generative for *some of* the practices we study and for *some of* our own colleagues in social theory" (Winthereik and Verran 2012, 38, emphasis in original), and that other stories are possible. These insights resonate with Suchman's argument (1995) about the ambivalences of representational practices, with particular reference to work practices. In stressing the values of (workplace) ethnographies, she recalls Clifford and Marcus' "poetics and politics" (1986), arguing that we can begin to build representations that are aimed at working disparate knowledges together. In this respect, experimenting with research writing becomes a method whereby to address the challenge of making work practices visible from different positions, rather than claiming to provide descriptions from a supposed neutral stance. Accordingly, writing practices become examples of ethico-onto-epistemology "in situ" producing multiple realities that differ in terms of power, knowledge, gender relations, location and visibility.

6. Conclusion

In addressing the problem of how STS researchers make the objects of their research, Lucy Suchman (2011) argues that research methods constitute a practice, and that this practice is itself an object of research. In this paper, I have argued that this is a longstanding concern in STS since the elaboration of the concept of 'reflexivity' as one of the key pillars of science studies (Bloor 1976; Woolgar 1988a, 1988b; Ashmore 1989; Pollner 1991; Pinch 1993; Lynch 2000). However, I join Suchman's argument according to which Feminist Science Studies have shaped our thinking about this in a more radical way. She draws on Barad's elaboration in arguing that the sense of the *apparatus* extends "beyond the by now well accepted premise that instruments have material effects in the construction of scientific facts, to more deeply conjoin agencies of observation, including subjects, and their objects. She [Barad] emphasizes that we are neither outside of the world looking at it, nor are we inside of it. Rather we are of it" (Suchman 2011, 21-22).

Following this input, in this paper I have sought to shed light on the importance of writing research as a practice that contributes significantly to the "material entanglements that participate in (re)configuring the world" (Barad 2007, 91). This acknowledgement solicits STS researchers to trouble the character of writing as a neutral practice, and open up further questions that inevitably shape the form of our account: what and who is this written for? Whose voices and visions do it comprise? Who and what is left out? How could it be otherwise?

References

Ashmore, M. (1989) *The Reflexive Thesis: Writing Sociology of Scientific Knowledge*, Chicago, University of Chicago Press.

Barad, K. (1999) *Agential Realism: Feminist Interventions in Understanding Scientific Practices*, in M. Biagioli (eds.), *The Science Studies Reader*, London, Psychology Press, pp. 1-11.

Barad, K. (2003) *Posthumanist Performativity: Toward an Understanding of how Matter Comes to Matter*, in "Signs", 28 (3), pp. 801-831.

Barad, K. (2007) *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham, Duke University Press.

Barad, K. (2011) *Erasers and Erasures: Pinch's Unfortunate 'Uncertainty Principle'*, in "Social Studies of Science", 41 (3), pp. 443-454.

Blix, S. and Wettergren, Å. (2015) *The Emotional Labour of Gaining and Maintaining Access to the Field*, in "Qualitative Research", 15 (6), pp. 688-704.

Bloor, D. (1991) *Knowledge and Social Imagery* (2nd edition), Chicago, University of Chicago Press.

Bowker, G.C. (2014) *Emerging Configurations of Knowledge Expression*, in Gillespie, T., Boczkowski, P.J. and Foot, K.A. (Eds.) *Media Technologies: Essays on Communication, Materiality, and Society*, Cambridge, MA, MIT Press.

Bruni, A., Gherardi, S. and Poggio, B. (2005) *Gender and Entrepreneurship. An Ethnographic Approach*, London and New York, Routledge.

Clifford, J. and Marcus, G.E. (eds.) (1986) *Writing Culture: The Poetics and Politics of Ethnography*, Berkeley, University of California Press.

Czarniawska, B. (2004) *Narratives in Social Science Research*, Thousand Oaks, Sage.

Czarniawska, B. (1998) *A Narrative Approach to Organization Studies*, Thousand Oaks, Sage.

Emerson, R.M., Fretz, R.I. and Shaw, L.L. (2011) *Writing Ethnographic Fieldnotes*, Chicago, University of Chicago Press.

Feldman, M.S., Bell, J. and Berger, M.T. (2003) *Gaining Access: A Practical and Theoretical Guide for Qualitative Researchers*, Walnut Creek, Altamira Press.

Haraway, D. (1988) *Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective*, in "Feminist Studies", 14 (3), pp. 575–599.

Haraway, D.J. (1997) *Modest_Witness@Second_Millennium. FemaleMan©_Meets_OncoMouse™. Feminism and Technoscience*, New York, Routledge.

Haraway, D.J. (2013) *SF: Science Fiction, Speculative Fabulation, String Figures, So Far*, in "Ada: A Journal of Gender, New Media, and Technology", 3.

Harding, S. (2011) *The Postcolonial Science and Technology Studies Reader*, Durham, Duke University Press.

Heath, C. and Luff, P. (2000) *Technology in Action*, Cambridge, Cambridge University Press.

Latour, B. (1996) *Aramis, or, the Love of Technology*, Cambridge, Harvard University Press.

Latour, B. (2008) *What is the Style of Matters of Concern? Two lectures in empirical philosophy.* Department of Philosophy of the University of Amsterdam, Amsterdam, Van Gorcum.

Latour, B. and Woolgar, S. (1986) *Laboratory Life: The Construction of Scientific Facts*, 2nd edition, Princeton, Princeton University Press.

Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*, New York, Cambridge University Press.

Law, J. (2004) *After Method. Mess in Social Science*, London, Routledge.

Law, J. (2009) *The Greer-Bush Test: On Politics in STS.* Version of 23rd December. Available at: http://www.heterogeneities.net–/publications/Law2009-The GreerBushTest.pdf

Law, J. and Urry, J. (2004) *Enacting the Social*, in "Economy and Society", 33 (3), pp. 390-410.

Lévi-Strauss, C. (1966) *The Savage Mind*, Chicago, Chicago University of Chicago Press.

Lohan, M. (2000) *Constructive Tensions in Feminist Technology Studies*, in "Social Studies of Science", 30 (6), pp. 895-916.

Lury, C. and Wakeford, N. (eds.) (2012) *Inventive Methods: The Happening of the Social*, London, Routledge.

Lynch, M. (1994) *Representation is Overrated: Some Critical Remarks about the Use of the Concept of Representation in Science Studies*, in "Configurations" 2 (1), pp. 137-149.

Lynch, M. (2000) *Against Reflexivity as an Academic Virtue and Source of Privileged Knowledge*, in "Theory, Culture & Society", 17 (3), pp. 26–54.

Marcus, G.E. and Cushman, D. (1982) *Ethnographies as Texts*, in "Annual Review of Anthropology" 11 (1), pp. 25-69.

Mol, A. (1999) *Ontological Politics. A Word and some Questions*, in "The Sociological Review", 47 (1), pp. 74-89.

Mol, A. (2002) *The Body Multiple: Ontology in Medical Practice*, Durham, Duke University Press.

Pinch, T. (1993) *Turn, Turn, and Turn Again: The Woolgar Formula*, in "Science, Technology, & Human Values", 18 (4), pp. 511-522.

Pollner, M. (1991) *Left of Ethnomethodology: The Rise and Decline of Radical Reflexivity*, in "American Sociological Review", pp. 370-380.

Reinharz, S. and Davidman, L. (1992) *Feminist Methods in Social Research*, Oxford, Oxford University Press.

Rouse, J. (1996) *Feminism and the Social Construction of Scientific Knowledge*, in Nelson, L.H. & Nelson, J. (eds.), *Feminism, Science, and the Philosophy of Science*, Springer, Dordrecht, pp. 195-215.

Shapin, S. and Schaffer, S. (1985) *Leviathan and the Air-Pump. Hobbes, Boyle, and the Experimental Life*, Princeton, Princeton University Press.

Suchman, L. (2011) *Practice and its Overflows: Reflections on Order and Mess*, in "TECNOSCIENZA: Italian Journal of Science & Technology Studies", 2 (1), pp. 21-30.

Suchman, L. (1995) *Making Work Visible*, in "Communications of the ACM", 38, pp. 56-68.

Suchman, L., Trigg, R. and Blomberg, J. (2002), *Working Artefacts: Ethnomethods of the Prototype*, in "The British journal of sociology", 53(2), pp. 163-179.

Timeto, F. (2016*) Diffractive Technospaces: A Feminist Approach to the Mediations of Space and Representation*, London and New York, Routledge.

Winthereik, B.R. and Verran, H. (2012) *Ethnographic Stories as Generalizations that Intervene*, in "Science & Technology Studies", 25 (1), pp. 35-51.

Woolgar, S. (ed.) (1988a) *Knowledge and Reflexivity: New Frontiers in the Sociology of Knowledge*, London, Sage.

Woolgar, S. (1988b) *Science, the Very Idea*, Hemel Hempstead, Ellis Horwood.

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[1] I use the phrase 'Feminist Science Studies' as in Barad (2011) to indicate a research and activitist field that questions the entanglements among matters of science, politics and power. To further clarify, as Barad puts it: "Feminist science studies was never a subfield of science studies that talked about women and gender. Feminist science studies, for all its diversity and because of all its diversity, is a richly inventive endeavor that is committed to making a better world" (Barad 2011, 9).

[2] To reconstruct the entire debate about reflexivity is out of the scope of this paper since this task would deserve an entire study on its own. To know more about the debate in STS, I would remind the reader to the following essential references: Woolgar (1988a, 1988b), Ashmore (1989), Pollner (1991), Pinch (1993), Lynch (2000).