

Making (new) things together

Everyday collaborative improvisation and the role of ethnography

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Paper presented at:

The 6th Annual Joint University of Liverpool Management School and Keele University Institute for Public Policy and Management Symposium on Current Developments in Ethnographic Research in the Social and Management Sciences.

In Association with the Journal *Ethnography*,
and Cardiff Business School's *Employment Research Unit*

Ethnography: Theory, Form and Practice

Cardiff Business School

Cardiff, UK

5th – 7th September 2011

“People are able to accomplish collectively what they could not do individually. The design that produces this complex mixture tends to be emergent, and visible only after the fact” [Weick, 2001: 58]

Introduction

How do everyday human activities come accomplished? How is it that people make (new) things together? As I shall try to show, the collaborative improvisation taking place in and through interaction constitutes the primary tool through which people everyday coordinate, carry on and accomplish activities, thus collectively achieving local order as well. Notwithstanding an undeniable habitual dimension (enacted and re-enacted practices become eventually institutionalized [cf. Powell & DiMaggio, 1983]), in fact, cooperation and coordination are phenomena that lay both behind and beyond formal distribution of duties, roles and responsibilities; they rather emerge from the situated interaction of the members of a group (being a working one or not) who share a mostly practical, tacit and embodied corpus of knowledge and know-how, and who inhabit the same *phenomenal field* [Merleau-Ponty, 1942, 1945; Garfinkel, 2002]. Action-in-interaction [e.g., Goodwin, 2000; Heath & Luff, 2000], therefore, is the very locus where work gets – collaboratively and situatedly – done. It is also the locus where any working order gets – collaboratively and situatedly – innovated [Feldman & Pentland, 2003; Powell & DiMaggio, 1991; Weick, 1998].

Starting from the ethnomethodologically oriented ethnography [e.g., Crabtree *et al.*, 2000; Dourish & Button, 1998; Sharrock & Randall, 2004] that I have been carrying out in an Italian medical emergency response *centre of coordination* [Suchman, 1993, 1997] before, during and after a techno-organizational change¹, I shall address the above mentioned issues, and then focus on the role that ethnographic research may take in/for organizations and, in particular, in/for the process of design and management of workplace innovation.

After a brief description of emergency operators' everyday work, and the broader social arena in which the process of innovation took place, I shall discuss the two main techno-organizational changes and their implication for work practices. The first one consists of the introduction of a new information system (IS), and the consequent

¹ The research was not initially designed as the study of a techno-organizational change, but of the collaborative work practices enacted everyday by emergency operators, the purpose being to analyze the organization of emergency assistance as a situated social practice connected with the use of technology/ies. The process of innovation started when the ethnography was going on since about 18 months; the unexpected opportunity to study such a process brought the fieldwork to be protracted for 12 additional months. Data include: field notes, informal interviews, photographs, screen captures and other documentary materials collected on the field; audio-recordings (about 39 hours) of the phone calls and video-recordings (about 56 hours) of the everyday work in the centre, then transcribed and analyzed accordingly to the principles and procedures of conversation analysis [e.g. Jefferson, 1984; Heritage, 1984] and video-based research [Heath, Hindmarsh & Luff, 2010].

changes concerning information and knowledge management; the second one regards instead the ICT infrastructure of the emergency boxes, and the related re-organization of the practices of interaction, communication, cooperation, and tasks/roles’ situated distribution (or coordination) among emergency response operators. I shall then focus on the way in which the latter were able to collectively *resist* managers’ and designers’ imposed/proposed changes by collaboratively and improvisationally establishing a different “new working order”.

The second part of the article directs attention towards the aspects to which one needs to pay attention for conducting “useful” ethnography for/in techno-organizational change processes. If, on the one hand, ethnography is traditionally well-equipped for dealing with issues of (sub)culture, power and conflict [as for organizations, cf. e.g., Burawoy, 1979; Kunda, 1992; Lounsbury, Ventresca & Hirsh, 2003; Morrill, 1991, 1995, 2008; Smith, 1990], on the other hand, as I shall argue, it may profit from an ethnomethodological [Garfinkel, 1967, 2002; cf. also Heritage, 1984] and conversation-analytical [e.g. Sacks & Jefferson, 1989; Atkinson & Heritage, 1984] (EM/CA) perspective. With its focus on situated interaction and practical, collaborative accomplishment of order and routine, an EM/CA approach allows the ethnographer to enlighten the situated meaningfulness of everyday practices, and to make their logic emerge from the tacit “taken-for-grantedness” of organizational everyday life. I shall then focus on the role of the researcher and her/his “expert” know-ledge/-how, in the attempt to identify the objectives that should guide organizational ethnography [cf. e.g., Jeffcut, 1994; Morrill & Fine, 1997; Smith, 1997] and enlarge its potential beyond the role of problem solver [e.g., Akdere, 2003; French & Bell, 1999; cf. also Kemmis, 2001; Maures & Githens, 2010] or problem finder [Jacucci, Tellioglu & Wagner, 2007].

Emergency operators’ everyday work: making things together

An Emergency Response Centre (ERC) constitutes a stressful and time-pressing, hi-tech and information-rich environment, in which communication, on the one hand, and information management (gathering, use, transmission, archiving, etc.), on the other hand, are the primary work activities – and are largely technologically-assisted activities. It is about a complex and changing, situated configuration of people, artifacts, knowledge, information, activities, and practices.²

In each emergency box two operators work in close cooperation and alternate themselves, during the work shift³, between the roles of call-taker, assigned to phone calls management, and dispatcher, responsible for radio communication with first aid units. This division of work activities and responsibilities, however, is not entrapping nor defined once and for all. It is possible, for instance, that the two box colleagues deal

2 ERCs can be considered as socio-technical systems [e.g., Agverou, Ciborra & Land, 2004; Button & Sharrock 1998; Suchman, 2002; Suchman, Trigg & Blomberg, 2002].

3 There are three work shifts for the 24/7-active emergency boxes: 7AM-2PM, 2PM-9PM, 9PM-7AM.

in parallel with two different calls. Mostly, however, they enact complex forms of coordination and cooperation [cf. also Fele, 2005, 2008; Whalen & Zimmerman, 2005] in order to manage in parallel diverse aspects of the same emergency (for example, in case of road accident: dispatching ambulances, giving first aid instruction to the caller, inform the police, etc.). Nevertheless, it is important to highlight that the engagement of the call-taker role also implies the task and the responsibility to make all the necessary decisions concerning incoming calls and related emergencies. For this reason – and other ones connected to the change process that shall be clear later – I define the above mentioned roles, respectively, operator A and operator B.

ERC operators communicate a) via telephone with the callers, having the immediate task to gather crucial information in order to determine the accident, the place and the patient's or patients' conditions; b) via radio with first aid units, an informative, quick and largely unidirectional communication; and c) in co-presence with colleagues (the box colleague primarily, but also those of the other boxes – cf. further), an internal parallel communication aiming to manage the external emergent one with callers and rescue units. Incoming (phone and radio) communications, in fact, continuously and unexpectedly intersect the ongoing flow of activities in the ERC [Fele, 2005]. Operators, therefore, have to situatedly and interactionally coordinate their task(s) with others' ones, as well as with emergent communications, by collaboratively establishing priorities and assigning/dividing tasks *moment by moment*.

This situated coordination, that allows participants to maintain a dynamic monitoring of the ongoing situation in which they insert their own flexible contribute, is produced in real time by operators. It is the product of a collaborative improvisation that exploits talk, mediated or not; bodily conduct, especially in its kinesics, proxemics and gestural components; and the use of tools, technological artifacts and the like⁴. The latter range from paper and pen(cil) to automated IT, such as computers. Paper and pen(cil) constitute fundamental interactional resources, that operators exploit not only for taking quick notes, but also in order to coordinate their work without talking and to more easily insert their mutual communication in the midst of the incoming, inevitably verbal, one. Consider, for instance, the following excerpts.

During the phone interview [operator A] attracts [operator B]'s attention, by touching his shoulder, and asks him to dispatch, by showing the sheet on which [operator A] has written down the address. [Operator B] dispatches, while [operator A] continues giving first aid instruction on the phone. [Fieldnotes: 02-18-2005, 3.09 PM]

Emergency call coming from Trento-city, which should therefore have been taken by box4 (territorially competent), but [operator A, box4] is engaged in another call and [operator B, box4] is on break. Therefore [operator A, box3] takes the call. Few moments later [operator A, box4] enters box3 and asks: "Was it ours?". Without saying a word, [Operator A, box3] gives her a sheet with notes regarding the call. [Operator A, box4] takes it and comes back in her box for dispatching. [Fieldnotes: 02-02-05, 5.07 PM]

4 Heath, Hindmarsh & Luff [2010: 9] synthetically refer to the "interplay of talk, visible and material conduct".

As for the computer system, operators mainly exploit it in order to: manage incoming and outgoing, radio and phone communication; select and monitor rescue vehicles; locate the accident on a digital map; record information; and get real-time awareness of the colleagues’ activities.

Social arena: making things with others

In order to briefly describe the broader social arena in which the techno-organizational change took place, I shall exploit a multi-level map (Figure 1). The first, cartographic level concerns physical spaces, while the second level is that of the chromatic areas, which represent those that have become places, the zones of work, competence and “occupational jurisdiction” [Abbott, 1988] of each group of actors (or occupational community [Van Maanen & Barley, 1984]). Actors, whose name is written slantwise in the map, and who represent the third level, are grouped on the basis of institutional professional roles, but also of the material dislocation of bodies and work activities, and the consequent perception of actors themselves in terms of membership and belonging. The last level (dashed lines) concerns the material and interactional trajectories of each group of actors, and thus the circulation of knowledge and practices.

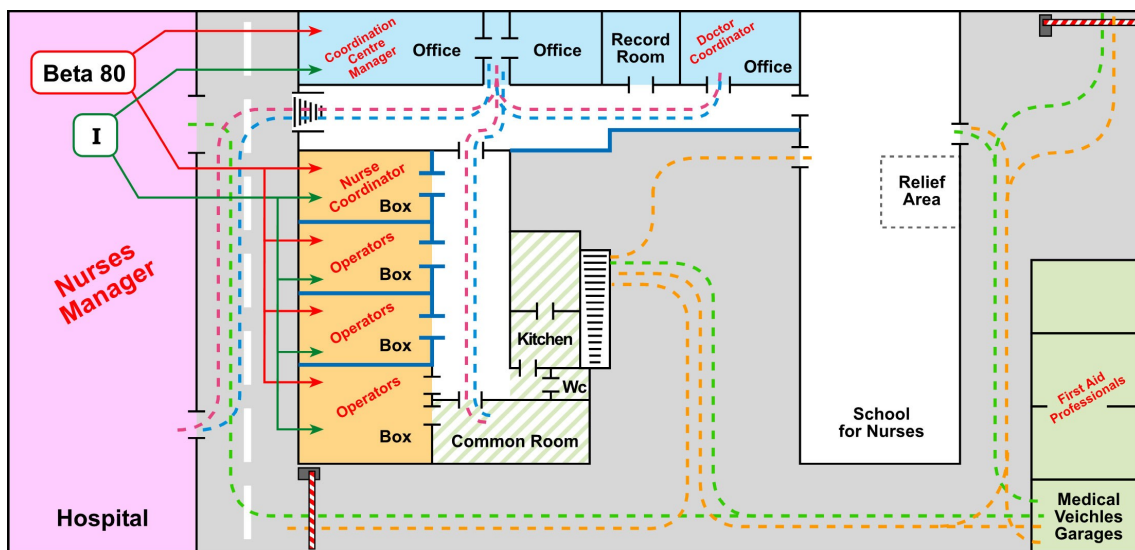


Figure 1: Multilevel map of the ERC compound.

Once entered the centre, one finds him/herself in front of a long corridor, which brings to the adjacent building of the professional school for nurses, where is also located the relief area that is used by ERC operators and first aid unit members too. The latter generally stay in/near the garages, ready to “exit” for rescue, but sometimes enter the ERC through the fire stairs on the backyard, in order to entry data on the common

room's PC. On the left of the corridor there are the offices of the managerial staff: the manager of the whole coordination centre and his secretary, both doctors, and the Doctor Coordinator of the ERC. Along the corridor one finds also a room with a recorder that keeps trace of all incoming and outgoing, phone and radio communications.

On the right of the corridor, instead, one finds the entrance to the actual ERC, where emergency operators work. The door is always closed and one can access the centre only after having been identified thanks to an interphone connected to a closed circuit camera. Along the narrow corridor of the ERC there are the boxes of the operators and the Nurse Coordinator of the ERC. Down the corridor, on the left, one accesses the common area, with a bathroom, a kitchen and a common room furnished with a large table, some shelves and a small desk with PC. In this area one can find operators, especially at the end/beginning of the work shift; rescue units members; and, just in case of meetings, managers, which otherwise restrict themselves to walk along the corridor and look through the glass doors.

We thus reach the fourth level of the map, that of the material, interactional and cultural trajectories of each group of actors; that, therefore, of knowledge, discourses and practices circulation. What I am interested in underlining, here, is that the interaction between the various managerial figures (of the hospital and of the ERC: respectively, pink and blue dashed lines), on the one hand, and, on the other hand, the operators and the paramedics (respectively, orange and green dashed lines) is minimal: almost reduced to formal meetings. Think, for instance, that the reorganization of the boxes' infrastructure – heavily affecting operators' everyday practices of cooperation – have been revealed to me by the Coordination Centre Manager during our first meeting after the announcement of the upcoming introduction of the new IS. On the contrary, as I later discovered, operators were not at all informed on that regard, and get to know about thanks to my questions on the topic.⁵

Last actors of the arena, indeed, are myself-the-ethnographer (I) and the IS designers group (Beta 80). Both have been in touch with managers as well as operators. However, it is important to highlight that the designers, differently from me, have interacted with operators only at a second stage: for the major part of the design process, in fact, they have discussed just with the managers; the interactions with those that would have then been the IS actual users have been restricted to some meetings, held when the system was already almost completely designed. The consequences of such a choice – totally indifferent to the social organization of work activities which was going on in the context of future application and use of the new IS – revealed their limits soon enough: we shall see how emergency operators, left aside during the design phase, have been able to put themselves back at the centre during actual implementation and use.

5 The new IS would have been implemented in May 2005. Operators have been informed about in December 2004, and began to learn its functioning starting from January 2005. In the same period, I unwittingly informed them about the upcoming reorganization of the infrastructure of the boxes by asking comment about during informal interviews.

The *others* to which I referred in the title of this section are thus the members of occupational communities different from that of emergency response professionals, yet members of the larger organization as well. The diverse communities are tacitly bound together by different practices and cultures, yet should find room for dialogue and mutual understanding. As I shall try to show, ethnography could play an important role in such an endeavour. Prior to face this topic, however, it is necessary to focus in more detail on the effects brought on by the absence of dialogue and, more specifically, the absence of reciprocal acknowledgement and understanding of the situated meaningfulness of each group’s practices, and the tacit logic underlying them.

Techno-organizational change: making (new) things alone?

As I mentioned, the techno-organizational change involved two main innovation. The first one regards information and knowledge management and consists in the shift from the “accident form” (Figure 2), opened and filled by operators in case of aid intervention and pre-formatted to contain all necessary information, to the “call form”, which automatically opens itself for each incoming call and must be filled by the call-taker – in real time, according to designers’ and managers’ intentions – with information regarding the caller and the reason of the call⁶. In case of actual emergency, operators have then to fill an “aid form”, with information about the accident, its seriousness, etc.; a “mission form” for each vehicle chosen and dispatched for that aid; and a “patient form”, including vital statistics and medical information, for each rescued person (Figure 3).

A first implication of such a change consists of the workload increasing for the ERC professionals, and the consequent reduction of their time, which is yet a fundamental resource in emergency contexts. Well aware of that, as soon as they knew about, operators started to plan acting “subversively” in order to protect themselves and – paradoxically – to be able to accomplish their work activities and tasks.

No, but I won't give a toss! That is, probably I'll not entry some useless calls. Many calls too, if I haven't time, if I'm very busy... Out of experience, when there's a lot of chaos, in order to protect yourself, you must deal only with real urgencies [Ma. 03-02-2005]

A second consequence consists of the emergence of a new kind of information, a one somewhat organizational: how many calls in a determined period of time, of which kind and in which percentage, which is the everyday workload of an operator, and so on. Although such information could be useful for the managers, its collection complicates operators’ everyday work. This kind of information, furthermore, and the knowledge one could glean from that as well, are unavailable to emergency response professionals, whose work is now just more demanding and more surveilled.

6 The ERC does not only receive emergency calls, but also those coming from hospital wards; newspaper editorial offices; institutional agencies such as police, etc.; other ERCs; or elders in search of some company. Sometimes, they even receive calls that are then revealed as phone jokes.

Figure 2: Screen capture of the accident form's main screen of the precedent IS.

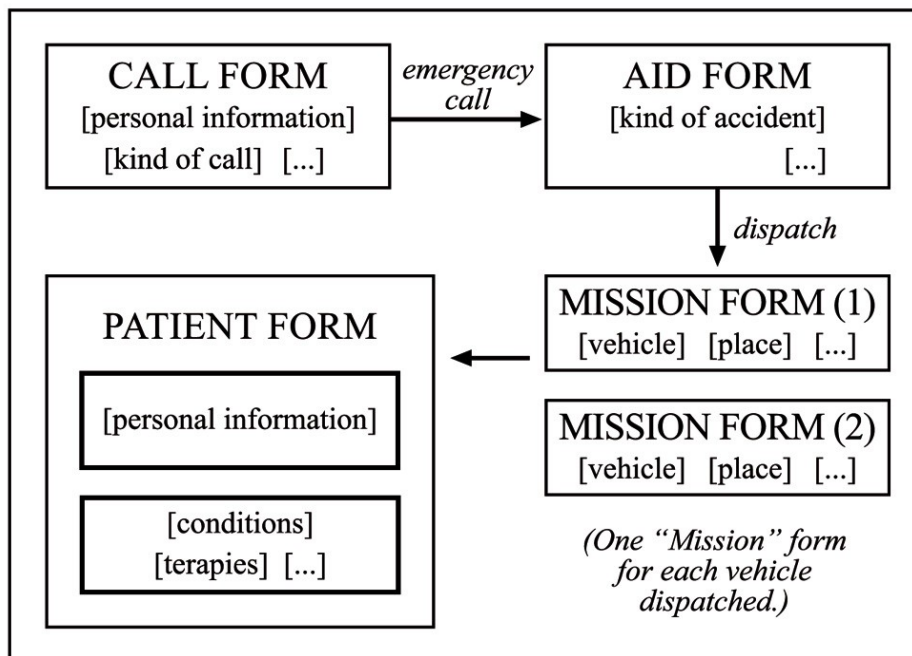


Figure 3: Scheme of the data entry forms of the new IS.

The second main change concerns the ICT infrastructure of the emergency boxes and the organization of cooperation between the work-shift colleagues in each box. More precisely, it consists of the introduction of two identical workstations in every box. Previously, each box was equipped with: *i*) a workstation with double monitor, one for data entry, the other one for the cartographer, and *ii*) a PC Client, connected to the switchboard, the LAN, a digital phone, and an headset⁷ (both used by operator A); *iii*) a second PC Client with single monitor (used for data entry by operator B); *iv*) a radio-set⁸ (mostly used by operator B); and *v*) a “traditional” phone (just in case of computer system failure). With the new system, instead, each box has two workstations with double monitor (one for calls management and data entry, the other one for the cartographer), two headsets, and two radio-sets, so that each operator could potentially – conditional is needed, as we shall see – work by her/himself.

With the “old” infrastructure, data regarding the accident could be inserted by both operator A and operator B (usually, during moments of relative calm). The latter, moreover, came anyway to acquaintance of that information since s/he had listened to the former on the phone, since the colleague had directly informed her/him in order to allow the dispatch or a consultation, and/or since s/he had read the paper notes taken by operator A during the call. The new ITC infrastructure, instead – with the breathtaking increase of the data to insert and, especially, with the opportunity, for each operator, of taking calls and dispatching at the same time of the box colleague – decreases the opportunities of achieving an adequate degree of mutual awareness, and discourages communication between colleagues, thus diminishing the cooperation degree. Therefore, it is about a technology which fails in one of his first and more important tasks, that of supporting users in acting in a way which is compatible and coherent with the configuration of activities and practices that constitute the context of use itself.

The operators, once again, strongly disagreed with the upcoming techno-organizational change, and some of them explicitly complained about not having been consulted by those decision makers that, differently than them, had no experience of such a context.

You work less quickly when you're alone. And, anyway, you can't discuss. [Mi. 16-02-2005]

An operator cannot work alone. [Managers] don't work in the boxes and don't know, but alone you can't... in real time... It's better to work in couple in the box, helping each other and discussing. [R. 05-01-2005]

As well as the new data entry system, the new ICT infrastructure and the consequent reorganization of coordination and cooperation were going to be (at least) partially ignored by emergency response professionals.

7 In order to answer a call one had, and still has, just to press the space-bar; the call is then transferred to the associated digital phone – which, after one ring, transfers the communication on the headset – and disappears from the other computers' monitor.

8 The system, anyway, allowed the operator, by pressing a pedal, to use the microphone for radio communication while s/he was keeping listening to the phone through the headphones.

Resistance and improvisation: making new things together

Emergency operators, aware of the logic at the basis of the practices that they everyday enact in order to organize and coordinate work activities – a logic which constitutes the occupational culture that they themselves (re)produce – did not change their mind after the ICT reorganization in the boxes. On the contrary, they basically continued to work in couple – something still allowed by the material environment: boxes remained reciprocally separated by glass walls – and carried out two different and mutually interchangeable practices. The first one consisted of simply behaving like if nothing, from this point of view, had changed. The other one consisted instead of deciding who was the operator A for every half of the work shift – hitherto, nothing new – but considering such a decision as not strictly binding. By playing and joking on the idea of what one might call the *cowboy operator* – i.e. the first who takes the call “gains” the role of operator A for *that* call – emergency operators moved the first steps towards this direction.

The “choice” of the one or the other practice was largely dependent upon the kind of relation existing between the two work-shift colleagues. One operator, for instance, could adopt the first practice, i.e. the “traditional” way to organize and coordinate activities, with some colleagues, while the second one, i.e. the new, “joking” way to work together, with other colleagues with whom s/he was much more familiar, close or intimate. More importantly, whatever the relation was, cooperation inside the box was a taken-for-granted: nobody tried to work by him/herself, not even among the little group of new IS fans, and nobody was in search of confirmation about the colleagues’ agreement on such a conduct. The various couples of box colleagues collaboratively found, *each* time, their way to cooperate and coordinate work activities. They did so situatedly and mostly tacitly, by grounding bodily conduct and visual orientation within the context of the ongoing situation and the phenomenal field; by interacting in, with, and thanks to the material environment and the object, artifacts, and bodies that populated it.

The distribution of roles and tasks, therefore, was not only situated, but became also potentially contingent and, especially, negotiable. Notwithstanding what the new technological infrastructure was intended to support, roles still existed in the box, but, thanks to that same infrastructure, they had become contingent, and more easily switchable. If the “revolutionary” practice of the *cowboy operator* was by then possible, what is perhaps even more interesting is the permanence – as an alternative, each time negotiable option – of the “traditional” practice.

An *innovative* organization of work activities, accompanied by its conditions of appropriateness, as well as its (ethno)methods of enactment and accountability, had emerged. This new working order was completely endogenous to the field; it was, in a manner of speaking, “native”. It had been collaboratively created and repeatedly enacted (produced an reproduced) by participants; it had emerged through collaborative improvisation, and had then been gradually established. Indeed, it is through the social

practices through which the activities of a determined context are accomplished everyday that (new) orders and routines emerge [Hughes *et al.*, 1994; cf. also Powell & DiMaggio, 1983].

Organizations, innovation and (EM/CA oriented) ethnography

In this section I shall recapitulate what I believe is the lesson of the research experience that I have sketched in the previous pages, and I shall focus, in particular, on the aspects to which one needs to pay attention for conducting “useful” ethnography for/in organizations, (techno-)organizational change processes and workplace innovation. I shall finally draw some distinctions between the proposed approach and those considering the research(er) as organizational problem solver/finder.

First of all, we should acknowledge that solutions to problems and issues emerging in a field should be coherent with the endogenous organization of activities of *that* field, they must be proper and suitable to the configuration of actions and interactions setting up that specific context. A workplace, indeed, is “a complex but habitual field of equipment and action, involving intimate relations of technology and practice, body and person, place and activity” [Suchman, 1996: 36]. Such a coherence bind entails the need for starting from who inhabit the field, since participants embody in their acting the (ongoing) logic of organization of the (situated) context itself. This also means that workplace “natives” are the best possible innovators of their own work environment and working order. As the above presented case demonstrates, they “are the ones best qualified to carry forward and fine tune the design of the workplaces they inhabit” [Suchman, 1997: 57]. Order and routine constitute a situated, collective accomplishment, with a clear improvisational dimension; it is about a collaborative process, which takes place in and through interaction, and often tacitly. Nevertheless, any situated working group develop an habitual way for collectively organizing work and collaboratively accomplishing everyday routine and habitual order themselves. Designing innovation, therefore, should consist of designing the groundwork for the collaborative and emergent accomplishment of new order(s) and routine(s).

If innovation must be coherent with the dynamic but habitual organization of activities and related supporting technologies in the phenomenal field in which participants act everyday, then the ethnographer called to support the change process should take into consideration, observe, and analyse in detail the material, practical, even carnal aspects of the way in which participants coordinate, carry out, mutually recognize and accomplish, in and through interaction, the technologically-assisted activities at hand. From this point of view, ethnomethodologically oriented ethnography enables to catch, in its minute details, the native, endogenous organization of activities in a field, in order to allow the researcher to enlighten the situated meaningfulness of everyday practices and the tacit logic underlying them.

Such a logic, furthermore, needs to be made explicit to the other actors of the

techno-organizational (re)design process. Organizational members, in fact, belong to different groups and cultures [cf. e.g., Barley, 1983; Clemens & Cook, 1999; Meyerson & Martin, 1987]; each of them has a specific idea and representation of the (work in the) organization and its desirable future. These ideas, representations and desires are often conflicting, or at least diverging; at the same time, different groups are equipped with different resources, power and decision-making opportunities. Within this frame, looking at the material, interactional and cultural trajectories undertaken by the various occupational communities, and the related circulation of information, discourses, knowledge and practices within the considered social arena, constitutes a quintessential prerequisite for the researcher's effective intervention – and a goal that ethnography is well-equipped for reaching. As I mentioned, furthermore, it is necessary to foster decision makers' awareness of the relevance of workers' everyday practices: if, on the one hand, it is about taking a critical stance and giving voice to those who get the work done but lack in power and decision making opportunities, on the other hand, it is also about constructing the groundwork for intercultural dialogue and mutual understanding.

The (ethnomethodologically oriented) ethnographer brings thus his/her particular knowledge and analytical gaze – that is, her/his occupational culture and practices – into the organizational system. S/he brings a gaze on the material, experiential, and interactional aspects of (technologically assisted) work; on the situated practices of coordination, communication, and cooperation taking place in the phenomenal field, their meaningfulness and tacit logic; on occupational cultures and the interaction between different (group of) actors. There is more, however: the ethnographer, in fact, is not only trained in the observation and analysis of the above mentioned aspects; s/he is also positioned outside the more or less conflicting relationships between different (groups of) actors, and the previous (hi)story, so to speak, of their reciprocal interactions. The ethnographer, therefore, could – and should – act:

- a) as an agent of visibility and recognizability (of the local organization of activities and work practices, and their logic);
- b) as an agent of mutual awareness and intercultural dialogue (between different occupational cultures);
- c) as an agent of legitimization (of the point of view of some actors – primary, but not exclusively, the ones more lacking in power – in front of the others, starting from his/her both neutral and “expert” social position).

How could/should s/he do so? It is my contention that the research process should be as less interventional as possible: actual and extensive presence on the field, rather than formal meetings, should be the main method of the ethnographer; rather than proposing solution for change, s/he should “be there”, participate to the everyday activities of the considered field, and disperse comments, questions, indications, etc. within the diverse occasions of such a context. On the one hand, this allows situated learning [Lave & Wenger, 1991] and gradual sedimentation for all the participants (the researcher included); on the other hand, it links more or less general observations and issues with concrete, practical, situated examples grounded in the lived experience of

the participants.

Equipped with additional knowledge, understanding and awareness of themselves and the relevant others, as well as the ways in which routine is collaboratively and improvisationally achieved, participants would then be able both to find – or, better, identify – and solve – or, collectively negotiate and deal with – techno-organizational problems on their own. They would be in better conditions for innovating their work practices and environment, for designing the change process.

It is from this point of view that I regard ethnography – and, more particularly, ethnomethodologically oriented one – as a method for supporting organizational change and workplace innovation that goes beyond problem-finding and problem-solving. According to the proposed approach, the role of the researcher does not consist of informing managers and/or IT designers about the problems and needs of the (future) users or the organization, nor of proposing specific and precise organizational and/or technical/nological solutions. On the contrary, alongside to the analytical endeavour, it consists of orienting organizational members' attention, being a vehicle for knowledge circulation, and thus fostering the co-construction of change and innovation.

Conclusions

As the above presented case exemplifies, when new artifacts – being IT or otherwise – and/or new way to collectively carry out work tasks are designed and adopted in a manner completely inconsistent with real users' point of view, actual work practices, the endogenous organization of activities in a field, and the specific configuration of interactions that actually sets up that field, then innovations may turn out to be non/under – or at least differently – used. Information Technology is a fundamental element in the case at hand: centres of coordination, indeed, are settings characterized by an high degree of technological density, where the work mainly consists of the management and communication of information. However, besides the fact that IT is increasingly spreading in the most of everyday settings, we should bear in mind that people, when making things together by interacting with one each other and the situated world they are inhabiting at the moment, exploit whatever resource at their disposal: talk and gesture, pen(cil) and paper, proxemics and situatedly meaningful sounds, computers and other high-tech devices, and so on. Any artifact-in-context is a potential technology, and should be regarded as such [cf. also Orlikowski, 2000; Gherardi, 2008].

An ethnography that intends to support techno-organizational change, therefore, should take into consideration the whole set of individual and collective actors, and the different ways in which they make sense of tools and artifacts, of the everyday technologically-mediated work practices, and of the process of innovation itself. It is necessary to analyze in detail the interactions in and between different groups of organizational members, and then to make mutually intelligible and accountable the

tacit logic of their respective practices. From this point of view, the ethnographer should work as an agent of visibility and recognizability, as well as of mutual awareness and intercultural dialogue.

Besides the “failure” side of the coin, furthermore, the case at hand also shows how an *innovative* work practice had emerged and developed through a collaborative improvisation entailing an habitual dimension (enactment and re-enactment), and, therefore, how workplace “natives” constitute the best innovators of their own working order – which is precisely what needs to be (re)designed during techno-organizational change. The ethnographer, in this respect, represents also an agent of legitimization. Ultimately, designing organizational innovation should be a process of collective improvisation on the basis of the endogenous and habitual practices and the organization of activities in a workplace. The role of ethnography should be to lay the groundwork for that process.

Ethnomethodologically oriented ethnography constitutes, to me, a particularly suitable and helpful methodology to accomplish the above mentioned task: the EM/CA approach equips the ethnographer with a way to look at – and inter-act in – the world that may contribute to the conduction of effective research projects for/in techno-organizational change and workplace innovation.

References

- Abbott, A. (1988). *The system of professions: An essay on the division of expert labor*. Chicago: University of Chicago Press.
- Akdere, M. (2003). Action research paradigm in the field of training and development. *Journal of European Industrial Training*, 27(8), 413-422.
- Atkinson, J. M., & Heritage, J. (1984). *Structures of social action: Studies in conversation analysis*. Cambridge: Cambridge University Press.
- Avgerou, C., Ciborra, C., & Land, F. F. (Eds.). (2004). *The Social Study of Information and Communications Technology: Innovation, Actors and Context*. Oxford: Oxford University Press.
- Barley, S. R. (1983). Semiotics and the study of occupational and organizational culture. *Administrative Science Quarterly*, 23, 393-413.
- Burawoy, M. (1979). *Manufacturing consent: Changes in the labor process under monopoly capitalism*. Chicago: University of Chicago Press.
- Button, G., & Sharrock, W. (1998). The Organizational Accountability of Technological Work. *Social Studies of Science*, 28(1), 73-102.
- Clemens, E. S., & Cook, J. M. (1999). Politics and institutionalism: Explaining durability and change. *Annual Review of Sociology*, 25, 441-66.

- Crabtree, A, Nichols, D. M., O’Brien, J., Rouncefield, M., & Twidale, M. B. (2000). Ethnomethodological informed ethnography and information system design. *The Journal of the American Society for Information Science*, 51(7), 666-682.
- Dourish, P., & Button, G. (1998). On “technomethodology”: Foundational relationships between ethnomethodology and system design. *Human Computer Interaction*, 13(4), 395-432.
- Feldman, M. S., & Pentland, B. T. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, 48, 94-118.
- Fele, G. (2005). Interaction and Collaborative Work in a Medical Emergency Dispatch Centre. Paper presented at *The 100th ASA Meeting*, Philadelphia, Penn.: August 13-16.
- Fele, G. (2008). In praise of thin descriptions: Ethnography, ethnomethodology and the study of practice. In *Proceedings of ALPIS 2008 – Alpine Ski Seminar on Information Systems, Carisolo (TN), Italy* (pp. 51-58). Trento: University of Trento Press.
- French, W., & Bell, C. (1999). *Organization development: Behavioural science interventions for organization improvement*. Upper Saddle River, NJ: Prentice Hall.
- Garfinkel, H. (1967). *Studies in ethnomethodology*. Englewood Cliffs, PrenticeHall.
- Garfinkel, H. (2002). *Ethnomethodology’s Program. Working out Durkheim’s Aphorism*. Lanham: Roman & Littlefield.
- Gherardi, S. (2008). La tecnologia come pratica sociale: un quadro interpretativo. In S. Gherardi (Ed.), *Apprendimento tecnologico e tecnologie di apprendimento* (pp. 7-42). Bologna: Il Mulino.
- Goodwin, C. (2000). Action and embodiment within situated human interaction. *Journal of Pragmatics*, 32, 1489-1522.
- Heath, C., & Luff, P. (2000). *Technology in action*. Cambridge: Cambridge University Press.
- Heath, C., Hindmarsh, J. & Luff, P. (2010). *Video in qualitative analysis*. London: Sage.
- Heritage, J. (1984). *Garfinkel and Ethnomethodology*. Cambridge, Polity Press.
- Hughes, J. A., King, V., Rodden, T., & Andersen, H. (1994). Moving out from the control room: Ethnography in system design. *Proceedings of the 1994 ACM Conference on Computer Supported Cooperative Work* (pp. 429-439). New York, NY: ACM Press.
- Kunda, G. (1992). *Engineering culture: Control and commitment in a high-tech corporation*. Philadelphia: Temple University Press.
- Jacucci, G., Tellioglu, H., & Wagner, I. (2007). Design Games as a part of Social Practice Design: A case of employees elaborating on organizational problems. In I. Benbasat, M. Limayem, D. Te’eni, G. Jacucci & E. Monod (Eds.), *MCIS’07 - Proceedings of the eight Mediterranean Conference on Information Systems, Venice, Italy: Vol. 1* (pp. 141-155). Trento: University of Trento Press.
- Jeffcut, P. (1994). From Interpretation to Representation in Organizational Analysis: Postmodernism, Ethnography and Organizational Symbolism. *Organization Studies*, 15(2), 241-274.
- Jefferson, G. (1984). Transcription notation. In J. Atkinson & J. Heritage (Eds.), *Structures of Social Interaction* (pp. ix-xvi). New York, NY: Cambridge University Press.

- Kemmis, S. (2001). Exploring the relevance of critical theory for action research: Emancipatory action research in the footsteps of Jurgen Habermas. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: Participative inquiry and practice* (pp. 91-102). London: Sage.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lounsbury, M., Ventresca, M., & Hirsch, P. (2003). Social movements, field frames, and industry emergence: A cultural-political perspective on U.S. recycling. *Socio-Economic Review*, 1, 71-104.
- Maures, M., & Githens, R. P. (2010). Toward a reframing of action research for human resource and organization development: Moving beyond problem solving and toward dialogue. *Action Research*, 8(3), 267-292.
- Merleau-Ponty, M. (1942). *La structure du comportement*. Paris: Presses universitaires de France.
- Merleau-Ponty, M. (1945). *Phénoménologie de la perception*. Paris: Gallimard.
- Meyerson, D., & Martin, J. (1987). Culture change: An integration of three different views. *Journal of Management Studies*, 24, 623-46.
- Morrill, C. (1991). Conflict management, honor, and organizational change. *American Journal of Sociology*, 96, 585-621.
- Morrill, C. (1995). *The executive way: Conflict management in corporations*. Chicago: University of Chicago Press.
- Morrill, C. (2008). Culture and Organization Theory. *The Annals of the American Academy of Political and Social Science*, 619(1), 15-40.
- Morrill, C., & Fine, G. A. (1997). Ethnographic Contributions to Organizational Sociology. *Sociological Methods and Research*, 25(4), 424-451.
- Orlikowski, W. J. (2000). Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations. *Organization Science*, 11, 404-428.
- Powell, W. W., & DiMaggio, P. J. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *Administrative Science Quarterly*, 48, 441-76.
- Powell, W. W., & DiMaggio, P. J. (1991). *The New institutionalism in organizational analysis*. Chicago: University of Chicago Press.
- Sacks, H., & Jefferson, G. (1989). *Harvey Sacks lectures, 1964-1965*. Dordrecht: Kluwer Academic Publishers.
- Smith, V. (1990). *Managing in the corporate interest: Control and resistance in an American bank*. Berkeley: University of California Press.
- Smith, V. (1997). Ethnography Bound; Taking Stock of Organizational Case Studies. *Qualitative Sociology*, 20(3), 425-435.
- Sharrock, W., & Randall, D. (2004). Ethnography, ethnomethodology and the problem of generalisation in design. *European Journal of Information Systems*, 13(3), 186-194.

- Suchman, L. (1993). Technologies of accountability: On lizards and airplanes. In G. Button (Ed.), *Technology in Working Order: Studies of work, interaction, and technology*. London and New York: Routledge.
- Suchman, L. (1996). Constituting shared workplaces. In Y. Engstrom & D. Middleton (Eds.), *Cognition and Communication at Work* (pp. 35-60). New York, NY: Cambridge University Press.
- Suchman, L. (1997). Centres of Coordination: A Case and some Themes. In L. B. Reisnick, R. Saljo, C. Pontecorvo & B. Burge (Eds.), *Discourse, Tools, and Reasoning: Essays on Situated Cognition* (pp. 41-62). Berlin, Springer-Verlag.
- Suchman, L. (2002). Practice-based Design of Information Systems: Notes from the Hyperdeveloped World. *Information Society*, 8(2), 139-144.
- Suchman, L., Trigg, R., & Blomberg, J. (2002). Working Artefacts: Ethnomethods of the prototype. *British Journal of Sociology*, 53, 163-179.
- Van Maanen, J., & Barley, S. R. (1984). Occupational communities: Culture and Control in Organizations. *Research in Organizational Behavior*, 6, 287-365.
- Weick, K. E. (1998). Improvisation as mindset for organizational analysis. *Organization Science*, 9, 543-55.
- Weick, K. E. (2001). *Making sense of the organization*. Oxford, Blackwell Publishers.
- Whalen, J., & Zimmerman, D. H. (2005). Working a call: Multiparty management and interactional infrastructure in calls for help. *Pragmatics and Beyond New Series*, 143, 309-345.