

Understanding organizational gestures: technique, aesthetic and embodiment

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Abstract

Defining gestures as recognizable patterns of recurring oriented body movements, this article aims at offering a conceptual framework accounting for organizational gestures' features. In order to fully understand them, I propose to see these gestures as routines of bodily movements, and technique, aesthetic and embodiment will appear to constitute the three dimensions that, through their interplays, generate organizational gestures. This article both participates to the corporeal and aesthetic perspectives on organizations and enriches the literature on routines with an extension to gestures and bodies and with a development on artefacts. Choosing a field study embedded in the repetitive lines of factory production will offer a challenging context to observe the inclusion of an aesthetic dimension within every gestures.

Keywords

Gesture, aesthetic, embodiment, body, routine, corporeality, artefact

Introduction

For more than a decade now, corporeality has become an important and institutionalized approach to organizations (Casey, 2000; Dale, 2001; Hassard, Holliday and Wilmott, 2000; Shilling, 1993). Indeed, even in our modern, computerized and digital era, no professions or organizations are functioning without bodies and gestures. Third-sector employees are still using their hands, eyes and feet, negotiators still need to meet face-to-face on occasions, managers often have to ‘get their hands dirty’ and craftsmen are far from disappearing. Even industry workers need some degrees of liberty between prescribed actions and actual practices. Considering that, the taylorian attempt to reduce organizational gestures to purely fixed, standardized body movements is clearly out-of-date. Indeed, the corporeality of bodies has imposed itself and a strict cognitive approach is now known to be incomplete at best and understanding gestures in modern organizations becomes essential for scholars as well as for managers. Gestures involve body movement, repetition, appropriation and tool uses and, thus, focusing on them is, *de facto*, fully inscribed in a corporeal approach to organizations, populating them with moving, feeling, sensing, hurting, enjoying, tiring, and resting bodies. Consequently, this article aims at answering the following question: what are the specific features of gesture within the context of organizations?

The ‘gesture studies’ are predominantly structured around several main approaches (Bernstein, 1926; Efron, 1941; Jousse, 1974; Kendon, 2004; La Barre, 1947; Leroi-Gourhan, 1965; Mauss, 1934) offering strong, but often isolated, accounts for particular aspects of the notion. Moreover, since ‘gesture’ remains a fairly common noun, many scholars don’t even bother with a definition. For example, McNeill (2000), even though he elaborates further, clearly states at the first page of his book that: “the word ‘gesture’ needs no explanation” (McNeill, 2000: 1). Therefore, I felt obligated to propose a starting definition enriched by these enlightening fundamental studies before building a conceptual framework.

Based on these, I will first define gestures as recognizable patterns of recurring oriented body movements. Then, this article integrates these main elements by conceptualizing organizational gestures as routines of bodily movements. The perks of bringing closer gestures and routines unfold in both directions. First, building on the existing literature on organizational routines, and more precisely on Martha Feldman’s analysis (Feldman, 2000; Feldman and Pentland, 2005; Feldman and Rafaeli, 2002), allows for an integrative framework of organizational gestures. Indeed, exploring this conceptual framework leads to describe gestures under three different dimensions: technique, aesthetic and embodiment.

Considering how technical and teleological aspects of routines have already been widely and rigorously discussed, I will emphasize on the other dimensions of gestures, often forgotten. There lies the second, and most interesting, perk: offering a more corporeal, sensorial and aesthetic view to organizational routines. This ‘gesture perspective’ imposes the centrality of bodies and knowing in the actual practice of every routine.

In that perspective, using factory’s production lines as an empirical study appeared appropriate. Indeed, exploring the aesthetic of sportive and artistic gestures seemed fairly trivial. Instead, finding beauty, tools’ mastery, corporeality and a sense of elegance along the repetitive line of industrial production shows how much the aesthetic and embodiment dimensions of gestures are as fundamental as their technical efficiency. Studying three books written by factory workers (Hartzfeld, 2002; Linhart, 1981; Navel, 1979), four main topics will appear: corporeality, learning, controlling and aesthetic. This will lead me to discuss the notion of elegance as a degree of mastering at which technique and aesthetic occasionally merge, as well as the role of embodiment in the use of artefacts and the importance of organizational control regarding gestures.

Gestures, between technique and aesthetic

The concept of gesture has been studied through eclectic accounts of different aspects of the notion: Mauss (1934) on the body, Leroi-Gourhan (1965) on tools uses, Heath (2002) and Kendon (2004) on communication, Bernstein (1926) on motion control or Jousse (1974) on mimicry for example. Willing to build a theoretical framework, I start by offering a definition that integrates these aspects: gestures are recognizable patterns of recurring oriented body movements. Then, I will explain how the notion of routine can provide a strong conceptualization of organizational gesture leading to three main dimensions: technique, aesthetic and embodiment.

Defining gesture: a recognizable pattern of recurring oriented body movements

Oriented body movements. When talking about gestures, the first element involved is a living, corporeal body. Indeed, in the Latin etymology, *gestus* corresponds to a movement of the body and, although the whole body is not directly involved, it is impossible to truly understand a gesture by isolating hands, feet or fingers from the rest. A gesture cannot be reduced to a simple sequence of body members in motion; it has to be embraced as an undividable whole, not as a set (Jousse, 1974). To Mauss (1934), gestures are specific functional actions that always imply movements; even what he calls “techniques of rest” are active, precisely defined and fulfilling a function: squatting down, sitting, stretching out, *etc.* What he detects here is the fact that gestures are always oriented toward something. A gesture is not random sequence of body movements, chaotically set in motion. It has an orientation; not in the sense that it requires an intentional, well-defined purpose but rather that it unfolds in a direction. According to Clot (2002), gestures operate under functional relationships that give sense and purpose to actions. Therefore, in every gesture, there is an idea of a result, a goal to achieve. It can be a clear, explicit, measurable objective as it can be an emergent and vague idea, a pre-conscious intention waiting for an occurrence to be articulated. Yet, a gesture does not emerge as soon as a body moves toward something, it is the regularities that several actors share and recognize that make a gesture.

Recurring. A gesture is not random or isolated in time and space, it is a recurring occurrence. It emerges through its own reproduction, several times by several actors. Recurring doesn't necessarily imply a strict replication, but rather the acknowledgement of sufficient similarities and it is this re-production, that allows gestures to be transmitted and for a gesture to exist. Inspired by Aristotle's consideration that “human is the most miming

animals”, Jousse (1974) founds all gestures on *mimèmes*, describing them as: “things that are played, again and again, and that we can record” (Jousse, 1950: 50). However, only imitating doesn’t build an ability to perform in different contexts and gestures need to be appropriated by the apprentice. The more an apprentice practises his/her gestures, the less his/her brain has to focus to perform it; it becomes one of his/her reflexes, one that s/he partly shares with his/her model (Bernstein, 1926). Consequently, gestures are recurrences embedded in a collective context in which actors will alternately be copying and be copied. Clot (2002) differentiates *collective gestures* that are shared realisations (professional gestures for example), and *the gesture collective* that has a part of appropriation by and for actors. He considers that every profession has its own referential of gestures that are characteristic of its practice. Therefore, a gesture isn’t a simple outcome of someone’s habit, it is the mastering of recurring adaptations around a gesture of reference (Bernstein, 1926). Thus, it is understandable and recognizable for other actors; it has a meaning in the sense that it refers to a specific signification within a community (Kendon, 2004). It can allow actors to communicate and materially enact something, i.e. a disease (Heath, 1986; 2002), the belonging to a community (Efron, 1941) or to convey a message (McNeill, 1985). This meaning is rooted in something common and stable that emerges through the recurring performances, a reference for these oriented body movements: a pattern.

Recognizable pattern. Through the on-going process of imitation and recurrence in actors’ gestures, a pattern emerges. It shapes an external gesture, a model that Leroi-Gourhan (1965: 36) calls “operative programs [that] leave the actor outside”. Bernstein (1926) compares these ‘external programs’ to roles in a play that guide actions, and describes them as “standards of movements” (Bernstein, 1926: 221). I will define these as patterns, stable references enabling actors to develop their own gesture, both appropriated and understandable. Yet they remain “shaped by the cast of past gestures” (Leroi-Gourhan, 1965: 40), guided by internal and external interaction forces, “like dogs are guarding the herd” (Bernstein, 1926: 222). Moreover, this pattern is embedded in a collective set of references, in a system constituted by shared gestures, beliefs, rituals, values and myths. Gestures always express the belonging to a community (Efron, 1941). Therefore, gestures are part, and based on, a tradition. As Mauss (1934: 5) has said, gestures are “the ways in which men, society by society, in a traditional fashion, know how to use their bodies”. To him, recurrence and imitation are not sufficient to explain gestures’ transmission: a tradition is required. It will provide a necessary cultural basis for its unfolding (La Barre, 1947). “In the traditional frame, the individual inscribes his/her own variations and draws a feeling of existence as an

individual in the margin s/he benefits, while enjoying the safety offered by his/her integration in the group” (Leroi-Gourhan, 1965: 59). There is a traditional background behind gestures that provides a meaning and renders them recognizable and understandable; they carry a sense both for the actor and the others. Thereby, for Kendon (2004) gestures are utterances, phrases of action recognized as gestures that non-verbally communicate particular messages. Many studies have been focused on the meaning carried by this ‘visible actions’ and that are shown and understood by others through their performances (Heath, 1986; 2002; Kristeva, 1968; McNeill, 2000).

Conceptualizing organizational gestures: routines of bodily movements

I have previously presented a set of notions that evolve around the concept of gesture: bodies in motion, repetition, goals and objectives, meaning, communication and language, tradition and recognition, transmission and appropriation. Within organizations, gestures will be performed in a specific context that emphasizes constraints of repetitive enactment and efficiency. On this, conceptualizing gestures as organizational routines particularly fits since it has been widely viewed as repetitive courses of action triggered by recurrent stimuli (Cyert and March, 1963; March and Simon, 1958; Nelson and Winter, 1982; Stene, 1940). Feldman and Rafaeli (2002: 311) define organizational routines as “recurring patterns of behaviour of multiple organizational members involved in performing organizational tasks”. Feldman and Pentland (2003) integrate four main elements in this approach: repetition, recognizable pattern of action, multiple participants and interdependent actions. At this stage, I will consider that seeing gestures as routines offers a strong conceptualization for gestures within the organizational context. According to Feldman and Pentland (2003), organizational routines are generated by the interplays of two inseparable aspects: the ostensive and the performative.

Ostensive. The ostensive aspect of a routine shapes our perception of what the routine is; it is an “abstract pattern that participants use to guide, account for and refer to specific performance of a routine” (Pentland and Feldman, 2005: 795). Although it can be codified as a standard operating procedure, it can remain in a tacit form as well. Moreover, there are no requirements for this ostensive aspect to be unified or homogeneous among the organization since it also exists through the subjective understandings of the multiple actors involved. Therefore, the ostensive script of any gesture can depend on the role or point of view of each practitioner, gaining an apparent organizational objectivity only in the alignment of their

subjectivities. This echoes to Blau (1955: 23) according to which the rules behind bureaucratic procedures “must be abstract in order to guide the different courses of action necessary for the accomplishment of an objective in diverse situations”. Thus, gestures don’t have to be codified or explicitly expressed, their meaning and recognition is based on an abstract intersubjective realization that constitutes their ostensive aspect. However, as rules are resources for actions, they cannot fully determine the gesture in action (Giddens, 1984; Polanyi, 1958; Wittgenstein, 1958) and patterns orient body movements but are always insufficient to fully define how it should be performed. Even though oriented and sometimes codified, a gesture cannot be reduced to its script and, according to Feldman and Pentland (2003), the ostensive aspect of these organizational routines must be enriched by a performative aspect.

Performative. Organizational routines are not only stable patterns, they also are concretely performed. Performances are “the specific actions taken by specific people at specific times when they are engaged in an organizational routine” (Feldman and Pentland, 2003: 101). Building on the ostensive aspect of routines, actors find appropriate courses of action that are inherently contingent, and locally relevant. Multiple variations, interpretations and adaptations are required, allowing for a specific gesture to be performed under continually renewed constraints. Actors need to interpret their actions “in order to make sense of what they are doing and, though their choices of how to proceed appear automatic or mindless at times, there is always the possibility of resisting expectations and doing otherwise” (Feldman and Pentland, 2003: 102). Even though the distance between the pattern and actual gestures can be substantial, they are in interaction; there is a constant interplay between the ostensive and the performative aspects of gestures. Therefore, organizational gestures, as routines of body movements, always are, to some extent, improvisational (Feldman, 2000). A *bricolage* is constantly at stake behind the performances of every gesture, coping with the situation and making do whatever is at hand (Levi-Strauss, 1962)

Artefact. One of the strength of the literature on routines is the inclusion of artefacts in the analysis, clearly differentiated from the ostensive aspect. They are the “physical manifestations of the organizational routine” (Pentland and Feldman, 2005: 797), often confused with the abstract pattern. Artefacts are deeply linked to routines, as much as they are linked to gestures. As Leroi-Gourhan (1965) states: “the instrument only truly exists in the gesture that makes it technically efficient” (Leroi-Gourhan, 1965: 35). Artefacts integrate the ostensive aspect and constrain performances but they also truly come into existence through

them. It is their continuous interactions, rather than their separate characteristics, that constitute routines, and, thus, gestures.

Gestures' dimensions: technique, aesthetic and embodiment

This section shows how this conceptual framework based on organizational routines accounts for the three central dimensions of gestures: technique, aesthetic and embodiment.

The technique of the ostensive. Practicing gestures in organization is often accompanied by a will to identify the best pattern of movements in order to replicate it. It will then constitute a reference, a strong recommendation for actors on how to conduct their actions. In this perspective, the pattern becomes a norm, consequently applying a logic of compliance in which any gap constitutes a fault. It imposes an indisputable way to do things that has been primarily clarified and institutionalized at intra-, inter- or supra-organizational levels (i.e. working habits of a team, organizational best practices or professional standards). Here, the acquisition of the gesture is achieved through repetitive and normative exercises – like the never-ending scales in the learning of musical instruments. A gesture is considered through replication and technical evaluation. In Greek, *tekhnè* corresponds to the prescribed efficient course of action resulting from the know-how of craftsmen, as opposed to *praxis*, the actual action (Aristotle, 1990). In modern societies, technique tends to be based on a normative scientific rationale oriented towards an improvement of the production methods (Habermas, 1968). Therefore, in this dynamic, both the form and the result of organizational gestures must be achieved in compliance with the model. This doesn't imply a perfect stability through space and time; as with DNA in biology, replications can generate mutations and variations. However, the ostensive aspect encompasses an idea of stability that gives gesture its formal existence within organizations. It is on this similarity between recurring body movements that a gesture can emerge and be recognized. Therefore, just as other routines, there will always be, in any given gesture, an organizational process aiming at its formal definition and its technical efficiency.

The aesthetic of performances. As organizational routines, gestures cannot be reduced to technical object replicated through time; they also are performed. Thus, not in opposition but in complement, gestures are also concretely enacted. In this dynamic, the aim won't only be the achievement of a specific task or a specific goal, but rather an ability to cope with the constant flow of new constraints faced by actors. Through their performances actors explore this 'improvisational' aspect of gestures, and appreciate the elegance of finding new ways to relevantly execute these body movements almost without thinking. This echoes to the many

studies that have been conducted on this aesthetic dimension of organizations (Gagliardi, 1990; Dean and al., 1997; Strati, 1999; Linstead and al., 2000; Thompson and al., 2001). And in a complex and uncertain environment, mastering a gesture calls for a sense of aesthetic in perceiving the specific situation that is faced, in feeling the multiple adaptations required, and in executing the appropriate gesture (Strati, 2003). There is as aesthetic knowledge of gestures that “comes from practitioners understanding the look, feel, smell, taste and sound of things in organizational life” (Ewenstein and Whyte, 2007: 692) and encompasses language, dress code, manners, style and body shapes (Thompson and al., 2001). Yet, this aesthetic dimension does not exclude formal expertise, it enriches it with spontaneous and seemingly unmediated judgements, recognitions and skills of the expert (Dreyfus and Dreyfus, 2005; Schön, 1983). It will not be solely about technical efficiency any more, but also about elegance, corporeality, senses, intuition and even sometime beauty. What is sought here is an intimate knowing of the pattern in order to be able to play with it, to know its features, its boundaries and blind alleys. In this process, the gesture is appropriated, and a sense of elegance is developed through which the actor will be recognized as a peer. Indeed, since it calls for an aesthetic sense, the performance of gestures won’t be clearly explicitly presented, it will remain at the tacit state of knowing (Strati, 2003) while also manifesting competency (Ewenstein and Whyte, 2007). Even though gestures are always oriented toward something, they remain irreducible to the mere technique. Gestures also require an instant, corporeal understanding of the context that lies on the body and its senses, on the intuition and reflexes of actors. Although aesthetic is not directly efficient, it constitutes the other side of gestures that enables them to be executed in complex and uncertain contexts.

Embodying artefacts. Moving constantly between technique and aesthetic, actors learn to master their gestures, both as abstract models and through actual performances. In doing so, they make them their own; they integrate them to their daily practices that are fundamentally embodied (Bourdieu, 1977; Schatzki, 2001). And the artefacts used will come to be embodied as well during this process. Little by little, the distance between an actor and his/her tools is reduced and from external instruments, they become a continuation of his/her body. Quietly, the scalpel of the surgeon isn’t considered in itself but becomes “an integral part of the body” (Strati, 2003: 67). Actors make artefacts their own, they integrate them into their corporeality which enables achieving a remarkable degree of precision (Leroi-Gourhan, 1965). It is only through this embodiment that practitioners can acquire the dexterity required in technical gestures. “When we learn to use [...] a tool [...] we interiorize these things and dwell in them. Such extensions of ourselves develop new faculties in us” (Polanyi, 1966:

148). However, artefacts are never random or neutral tools, they have a history, a function and serve a purpose. As the physical manifestation of routines, they can be seen in organizations as an attempt by managers to shape actual work practices and to codify behaviours (Pentland and Feldman, 2005). Therefore, artefacts constitute a medium linking directly the power struggles of their definition and actors' bodies. Yet, as we have seen, artefacts and procedures will always both constrain and enable at the same time since actors have to constantly adapt and enact necessary variations. Technique and aesthetic both provide multiple dynamics of artefacts appropriation, not only as an habituation, but rather as an integration within the gesture and within the body of logics wider than this specific gestures and the tools used.

Considering gestures as routines of body movements allows building a conceptual framework that includes the main elements of the notion. Yet, since gestures are inherently performed by actors that have embodied them, an empirical study is, more than ever, crucial.

Methodology

In order to understand and describe gestures, an intimate knowing of the field is essential. The subjectivity of actors must be captured in order for their movements to make sense, and their reflexivity on these movements is key. Therefore, I will base my empirical study on three secondary sources that are fully immersed in car factories in order to access an intimate understanding of the actors' views. The aim of this section is to confront the conceptual framework to actual descriptions of organizational gestures and see if it can account for their dimensions. The first book, *Travaux (Men at Work)*, is Georges Navel's autobiography, the reflective narration of his life as a manual worker that Tedlock (2000) would label "biography" or "life history". The second one, *Les gens d'usine (Factory people)*, falls into the category of monographs in which "each chapter unfolds spatially and logically, treating a standard topic – environment, social relations, identity, or worldview – constructed by means of equivalent episodes and data" (Tedlock, 2000: 459); yet, Hatzfeld's account is also very analytic and could be considered as close to historiography. Finally, Robert Linhart's *L'établi (The workbench)* provides a narrative that unfolds between a life history (the author did work on the production lines that he describes) and a memoir (some specific moments are widely developed, i.e. training, solidarity, strikes, rationalization), which is the

exact definition of narrative ethnography (Tedlock, 2000: 460). The main information about these sources are presented in the table below:

Insert Table 1 here

As I have said in the introduction, the choice of a highly automated industry is not random. Willing to also explore the aesthetic dimension of gestures without over-emphasizing it, it was important to study a field where it wouldn't be obviously present, i.e. design, architecture or creative industries.

First, these three books have been carefully read in order to know the general frame of their authors' lives and points of view regarding their activity. This previous step allowed for an understanding of how authors considered their work, the place it took in their life and, consequently, their relationships with their gestures. Then, a first coding was applied, isolating paragraphs in which gestures and body movements were tackled, usually close to the authors' choices regarding language and vocabulary. The objective was to analyse these texts for recurring topics and to thematically code them. Then, a cross-coding was applied, after having found similarities between them. The process was strongly influenced by Gioia's methodology (Gioia and al., 2013). Based on the idea of 1st- and 2nd-order labelling (Van Maanen, 1979), this methodology gathers informant-centric terms and codes (1st order) before identifying more distanced and abstract themes, dimensions or concepts that are more researcher-centric (2nd order). During the process of cross-coding, some themes emerged that were not tackled in the theoretical section (i.e. some dimensions of learning, the topic of control). Instead of re-writing earlier parts, I decided to let them appear at this stage and to address them further in the findings and discussion sections.

During these (multiple) readings, an emergent coding system was developed, integrating new labels every time an idea seemed fairly distant from the existing ones. Then, I cycled both in and between the three books to identify common topics or patterns, trying to build topical bridges. Through this process, ten common 2nd-order themes emerged, generally merging two or three recurring notions. Then, these themes were aggregated in four overarching dimensions, based on conceptual proximity. The modes of representation used later are directly inspired by Clark, Gioia, Ketchen and Thomas (2010). Table 2 represents the data structure and the three following tables summarize the extracts supporting data for each 2nd order theme.

Insert Table 2 here

Findings

The emergence of several recurring themes in these three books has been aggregated in ten 2nd-order themes and in four overarching dimensions. The first one offers a renewed perspective of the classical notions provided by the conceptual corpus, but with an extreme emphasizes on their corporeality. The second one is built around the multiple ways through which gestures are learned, appropriated and transmitted. At the same time, the tension between organizational control and workers' gestures has imposed itself as one of the fundamental elements regarding workers point of view and, thus, constitutes the third section. The last dimension is about the performance of factory gestures and the ceaseless flow of reflexivity and sense of elegance that it generates.

Gestures viewed from the field: the importance of corporeality

It is unsurprising, when building a framework on such strong accounts of gestures, to find their categories in the empirical study. Yet, what is particularly interesting here is that the actors' perspective enriches the trails set by the conceptual corpus by reversing the perspective. From the workers' point of view, separating gestures, bodies and minds makes no sense. And, when performing these oriented body movements, they mainly describe their gestures through the prism of corporeality. The exhaustion of manual labour requires saving energy and limiting fatigue in its repetitive movements. Plus, the recurrence of their gestures reveals itself to be a potential source of boredom; but, considering the rationalizing context of the factory, it is probably due to the specificity of the field. Artefacts, on their side, are described as extensions of the body, merging with the identity of the worker as a professional and as an individual. Even though exhausted, he/she is never unconscious, always calling his/her senses up to achieve tasks that require tact and fineness.

Insert Table 3 here

Effort, efficiency & economy (a). If gestures are generally oriented, this orientation tends to be more finely defined within organizations, often quantitatively and thought in term of efficiency, especially in an automated factory. Yet, this idea of efficient movements doesn't only apply to the workers' time and productivity; it is also a matter of inner effort. Consequently, gestures are efficient, not only in a managerial sense, but in a kinetic perspective as well, in a corporeal dimension. The economy of effort in a communal gesture

will even become an indicator of experience, something that can only be acquired and mastered through time, slowly becoming both efficient and thrifty. The recurrence of gestures creates a habit that provides a relief. Gestures' stability allows for a rest that is inherent to it and a tension will emerge from this on the matter of production rationalization (see theme h). Indeed, since a gesture encompasses some kind of energy saving, it can be seen as a hidden rest, a slacking; hence the game of hide-and-seek that is described in factories because organizational rationalization appears to often intensify efforts by condensing gestures.

Bodies, fatigue & boredom (b). Gestures on a production line, though kinetically efficient, remain tiring, if not exhausting; the body is repeatedly moving to execute identical tasks. Corporeality imposes itself through a constant reference to fatigue and rest in worker's accounts. Working is tiring, especially in industrial contexts where production is 'scientifically organized'. Moreover, in these particular contexts of high rationalization, the topic of boredom systematically emerges and appears inherent to gestures as repetitive movements, as routines that are repeated over, and over, and over. However, though repetitive, they rarely become completely unconscious; they always are described, at the very least, as pre-conscious, never un-thought of (see theme j). Thus, never separating body and mind isn't just a conceptual imperative, it is also constantly seen on the field, as a way for workers to avoid boredom, providing as sense of their task, of their own experience, of their identity.

Embodiment, artefacts & senses (c). Little by little, workers embody their tasks, their gestures and their tools. Being car body workers becomes more than a job, it defines their identity. Yet, their gestures, through appropriation, allows for a sense of individuality because they are theirs, because they make them their own. Every worker develops a personal style, his/her own *touch*, in the interpretation of the collective pattern of the gesture (see theme l). This process is particularly present with professional instruments and tools. On the field, although fundamentally shared, collective and apparently standardized, artefacts are appropriated by actors, embodied within their own personal gestures. In doing so, factory workers merge not only with their instruments, but also with the task itself that encompasses these artefacts. This appropriation of both gestures and artefacts allows for workers to develop a sense of individuality within the fairly standardized context of organizations, and thus to build margins of autonomy. Moreover, through these embodiments, they develop an ability, a precision in their gestures beyond usual technical skills, involving sensitivity, intuition and corporeal reflexes (see theme j). The high degree of precision of professional gestures is rooted in a sense of the task, a tact, a touch, that can only be understood through the process

of embodiment; it is irreducible to a mere cognitive acquisition. The spirit of the task is found in the hands, eyes and legs of workers, and not only in their heads.

Learning gestures: watching, showing and playing in rhythm

Learning a task on a production line can be understood as the acquisition of an ensemble of specific technical gestures, requiring precision and adaptability. As Hartzfeld puts it: “the work station is an aggregate of gestures” (Hartzfeld, 2002: 29). Yet, to acquire a gesture, factory workers cannot only learn an abstract pattern; part of the training has to be actually done on the production lines. The interactions between ostensive and performative dimensions of organizational routines clearly appear here. Moreover, artefacts and their embodiments impose themselves a central topic. On site, workers do not only get used to a sequence of body movements, they also integrate the spirit of the gesture, its rhythm and a sense of the collective.

Insert Table 4 here

Appropriation, adaptation & agility (d). One striking element in the three books is that tasks are rarely described as strictly repetitive. Workers’ gestures are never exactly twice the same, and two workers don’t perform their gestures precisely the same way. In the learning process, there is an appropriation of gestures: their pattern, the movements, the tools. The worker is not enacting rigidly the same procedures, instructions have to be adjusted in order to work on site. Moreover, from one task to another, from one car to another, the gesture has to be slightly modified to be relevant. Consequently, gestures are never described as rigid. Regarding the learning process, workers particularly emphasize the emerging ability they develop through time. Little by little, they become agile, more and more able to face the ever-changing required adjustments to their tasks.

Watching, doing & showing (e). Workers need to practise a pattern before performing it; and to understand this pattern they start by watching others. In these ‘scientifically organized’ contexts, the pattern of the gesture is often explicitly defined and formally taught in training programs (see theme g). In these programs, an apprentice starts by watching a model, trying to capture the regularities and subtleties of the master’s gestures. Then, the need to apply this abstract knowledge in a concrete context imposes itself quickly. Indeed, for industrial workers, acquiring a gesture isn’t only about reproduction of a pattern, it is also about embodying its logic, incarnating its spirit (see themes c and d). All along this learning

process, the apprentice slowly becomes a model; needing less and less to watch, he/she shows and explains more and more. On the production line, authors describe a constant interplay of watching and showing, learning and teaching, through multiple performances, in and out of the production sites and always in a collective context.

Individual and collective rhythms (f). Once the gesture has been appropriated, apprentices become practitioners, able to adapt their bodily movements and achieve the task in several contexts. They develop their own style, their personal signature when performing the pattern (see theme 1) within a collective motion. In this, workers understand that the gesture itself carries a cadence, a rhythm of its own. And, since gestures are embedded in factories, where gestures tend to be particularly shared - if not standardized -, these cadences are never only personal, they are collective. Hence, collective rhythms become an important element of production workers' lives, a marker of their shared tasks and objectives. Since gestures produce rhythms, consequently, rhythms recursively pace gestures. These shared cadences often appear to also be a tag for one's ability to correctly perform a task, to work with the others. By the end, rhythm is far from being just a characteristic, it is constitutive of a gestures; it defines it. And since cadences are often defined - if not imposed - by supervising actors, the dynamic of control appears to be very important in the performance of gestures.

Controlling gestures: a central tension

One of the main findings of this empirical study is the fact that, in an organizational, collective context, the generative process between ostensive and performative aspects becomes a source of tensions. When talking about scripts of actions, patterns, margin of error and degrees of freedom, factory workers formulate a problematic gap between prescribed actions and actual realizations. Within factories, performing gestures becomes a matter of organizational control from teachings in training programs, to prescriptions and definitions on the lines and their impacts on spaces of production.

Insert Table 5 here

Organized trainings (g). The first step to coordinate gestures in factories appears to be the formal definition of a pattern and its transmission in training programs. Factories don't necessarily seek strict compliance or implement strong surveillance; yet, the mere will to organize training is already a form of control. When workers learn gestures in programs outside of the production lines, they are completely conscious of this will, but they also see it

as a necessary step of the learning process. Factory workers are not craftsmen, they are aware that production is standardized and monitored. Yet, they also claim the need for a margin of freedom between what is learned in training and what is executed on the lines. Therefore, a gap emerges and is often described as a source of power plays and conflicts. Prescriptions in training, when over-emphasized, can result in a feeling of oppression by workers. However, even if this gap always remains, it isn't systematically a source of conflict.

Rationalized prescriptions & actual performances (h). Factories' birth is concomitant the project of scientific organizations. Therefore, finding a process of rationalization all along the three books was not surprising. Gestures in factories are not random, they are rarely defined by workers either; gestures are generally prescribed by managers and engineers before being organizationally taught (see theme g). Consequently, their definitions come with an imperative of compliance. Yet, as we have seen, workers cannot simply comply, they need to adapt, to cleverly adjust their movements to the moving production lines (see theme d). This inherent gap between prescribed gestures and actual performances appears to be a source of multiple controlling dynamics. If the matter of organizational control often remains central, it isn't necessarily problematic; factory workers are not systematically opposed to any form of supervision. As a matter of fact, prescriptions are often considered as useful indications. Indeed, even if workers wanted to strictly comply with prescriptions, they know that they wouldn't be able to and managers often appear to also know that. Managing this tension between rationalized prescriptions and actual realizations is a matter of organizational control that is described as an inherent element of both organizations (as systems of coordination) and gestures (as collective, on-going performances).

Spaces of production (i). A striking recurring topic is the complex set of tactics regarding organizational spaces. Even though workers usually operate alone on their segment of the production line, it remains a continuum of consecutive, and thus interdependent, tasks. Each station on the line has a functional and spatial definition allowing it to remain organized on a wider level. Yet, this definition, like every other in factories, has to be loosened, appropriated and adapted. From time to time, workers will save time or be late and this will affect their position on the line – and the others'. Therefore, many dynamics emerge regarding the areas of production; workers never operate linearly. Gestures inherently occur in time and space, and since they are both strategic in their adaptations and collective in their performances, spaces of production within factories will be explored and exploited through many local tactics.

Performing gestures: reflexivity, pleasure and elegance

Many sections of the three books emphasize the importance of intuition, corporeal senses and elegance in the performances of gestures. The term ‘aesthetic’ is even used on several occurrences. But the most recurring topic, during actual performances, remains reflexivity. Although gestures don’t require a permanent awareness, factory workers are thinking about what they are doing; they have to. Moreover, attention to gestures keeps them from boredom, and provides a sense of pride. Mastering a task requires both experience and reflexivity, often resulting in an elegant and efficient gesture.

Insert Table 6 here

Consciousness, intuition & intelligence (j). Gestures are inherently recurrent, following a collective rhythm. Yet, they are rarely described as purely automatic or deprived of attention. A mechanistic approach is often pictured as disastrous for workers; they need to adapt on every moment but they also have to reflect on their actions to finally master their practice. Plus, in order to avoid boredom and exhaustion (see theme b), factory workers have to be aware, self-conscious of their movements and their function within the production line. Performing gestures with relevance requires a sense of the task that goes beyond reflexes; reflection and intuition are also present. Not only are they present, but being conscious of the required intelligence of their gestures, seeing the relevance of their reflexes and intuitions, allows workers to give their tasks meaning and to maintain a sense of humanity. By the end, working on a production line is often presented through intuitive and reflexive aspects.

Pleasure & pride (k). From the self-awareness of the workers’ intuition and intelligence emerges a sense of pride and pleasure while performing gestures. The orientation embedded within these gestures appears as a challenge for workers, something to face and to play with. The resulting sense of achievement gives them a pride that they often don’t find elsewhere within factories. Whatever the task, a sense of accomplishment and satisfaction is often described and, although tiring, if not exhausting, fatigue can go with pride. A job well done is something very important, even when achieved on repetitive, standardized production lines. Moreover, the acquisition, and mastering, of a gesture appears to provide them with a set of internal appreciation criteria. Only other factory workers performing the same gesture, or similar ones, can recognize and truly appreciate the relevance of a specific way to perform it; and this sense of community is greatly appreciated.

Elegance & style (l). Workers find, within their collective, a sense of beauty in their gestures. Their dexterity is always appreciated through some kind of efficiency, but also

through beauty, in the elegance of their gestures; tact and finesse are never far. Workers' agility and pride lie on a sense of ease that they feel and see in others and in themselves. Interestingly, even in the automated field of factories, they appear to develop personal modes of performance in accordance with their station, with their tools and with their tasks. And these modes are rarely described as identical; each worker seems to have his/her own style, similar yet different from the others. There is a personal signature within the movements of each worker's gestures. All five senses are implied in the know-hows that produce efficient gestures, intuition is required and the rhythm has to be understood as well as felt (see themes c, f and i). Moreover, the extreme sensibility that can be required by some tasks excludes a purely technical appreciation of gestures. Workers' mastery is not only presented in terms of productivity, it is also sensorially described through pace, ease and elegance.

Although echoing the conceptual corpus on the constitutive notions of gestures, findings of this empirical study shed a renewing light on them. Organizational control emerges through the tension between prescribed and realized actions as well as during training in and around the production lines. Moreover, the corporeal dimension imposes itself through fatigue, exhaustion, sense, bodies, elegance, pleasure, incorporation and rhythms. Finally, the lexical field of aesthetic appears to be constantly used by workers themselves. "The only reference at this point is the master piece [...] By the end, it is about sensation, even further, an aesthetic of gestures" (Hartzfeld, 2002: 46).

Discussion and conclusion

Defining gestures as recognizable patterns of recurring oriented body movements has allowed delineating the notion while including insights from the main theorists. Then, building the concept of gesture on the organizational routines framework has enabled a clarification of its main features: technique, aesthetic and embodiment. The on-going interplays between these technical and aesthetic aspects of bodily movements generate gestures' multiple dynamics. Moreover, this conceptualization allows for the inclusion of embodied artefacts as an inherent part of gestures, as merging extensions of the actors' moving bodies; this was an important point regarding the many developments on tools' uses made by scholars studying gestures (Bernstein, 1926; Leroi-Gourhan, 1965). In order to observe these features, the study of workers' gestures in car factories led to an enriched view through four main findings.

First, from the workers' perspectives, our conceptual dimensions appeared as always orbiting the body. Every element of these routines is understood from a corporeal point of view: relieving the body, lightening the effort, limiting boredom and allowing rest. Even in the context of industrial factory, aesthetic and embodiment remain recurring topics; hence, they constitute inherent dimensions of every routine, already known to be technically efficient. This echoes with many organizational studies that have included bodies and corporeality in their analysis (Casey, 2000; Dale, 2001; Hassard, Holliday and Wilmott, 2000; Shilling, 1993). Indeed, management scholars are now starting to fully recognize how much the body matters in organization studies, overcoming its "absent presence" in social sciences (Schilling, 2003: 17). Evoking Bourdieu (1977), Gherardi (2000) emphasize the importance of the *sens pratique* and the *habitus*, and their multiple inscriptions within the practitioners' flesh. The present study, by focusing on gestures, show how becoming a practitioner is not only about learning an expert knowledge, it is also a sensorial, corporeal, aesthetic experience (Bazin and Aubert-Tarby, 2013). The gesture perspective participates to the aim of going beyond the Cartesian dualism between body and mind (Dale, 2001) that often lies behind many routine analysis. On this, the present article actively contributes to studies on aesthetic, knowing and learning in organizations (Gherardi, 2001; Hindmarch and Pilnick, 2007; Nicolini, 2010; Nicolini, Gherardi and Yanow, 2003). When bodies are moving, as they are in gestures, there is always a sensorial tacit knowing that cannot be rendered explicit (Strati, 2003) and calls for an aesthetic knowledge (Ewenstein and Whyte, 2007). A 'gesture perspective' emphasises aspects that tend to escape from the realm of the 'scientific

organization’ and challenges classical, cognitive and rationalist descriptions of organizational routines by putting senses, reflexes and emotions as starting points of analysis. It shifts the attention and includes routines in organizations seen as “embodied life-worlds”, populated with bodies, intuitions and aesthetic (Küpers, 2005). It leads to focus on embodiments dynamics that participate to renewed approaches of organization studies in general, and of routines in particular, i.e. organizational culture as inscribed in our bodily movements beyond – or below – linguistic and discursive aspects (Hayles, 1999; Küpers, 2002), artefacts as embodied extensions of actors’ bodies, inscribed in their flesh (Strati, 2005) or gestures as non-verbal, yet extremely structured and meaningful mediums of communication (Kendon, 2004).

Secondly, learning gestures appeared to be both individual and collective processes of watching, doing and showing. A gesture is acquired through processes of imitation and appropriation in which workers also maintain their own individuality, their own style. This has led to a third finding that remained under-emphasized in the conceptual framework: an inherent tension emanating from organizational control dynamics between prescribed and realized works. Yet, workers’ reflexivity appeared to always enrich performances beyond the reductive prescriptive approach set by controllers, trainers and production organizers. Studying how, within gestures, bodies evolve between resistance and compliance, trying to cope with prescriptions that cannot be strictly applied, is an element explored by this paper that could be later developed in further research, particularly in industrial contexts in which conflict are triggered. Indeed, “the majority of the discipline has been less interested in the bodies and desires that organizations fail to fully organize” (Thanem, 2004: 203). A ‘gesture perspective’ could offer an interesting focus of analysis for these controlling dynamics, especially when focusing on organizational tools. For example, the alternation of framing, overflowing and reframing offered by D’Adderio (2008) could allow understanding the dynamics of appropriation, embezzlement, compliance, surveillance and monitoring processes.

Corporeality imposed itself as a central dimension in the empirical study, and embodiment dynamics in organizational routines appeared to render the frontier between artefacts, gestures and bodies more than hazy. Even though artefacts are often conceptually separated from ostensive and performative dimensions of routines, Pentland and Feldman (2008) recognize that boundaries between these three elements are always porous. Therefore, one of the contributions of this article clearly lies in showing this porosity and the merger between practitioners and their tools during the organizational routines that gestures are. It

participates to the call for further and closer analysis of artefactual dynamics in routines (D'Adderio, 2010; Rafaeli and Vilnai-Yavetz, 2004). Using artefacts inherently leads to embodiment (Yakhlef, 2010) and to an aesthetic experience (Vilnai-Yavetz and Rafaeli, 2006). As Merleau-Ponty (1968: 123) puts it: “there is overlapping or encroachment, so that the things pass into us, as well as we into the things”. By shifting the attention to bodies, a ‘gesture perspective’ such as ours strongly emphasizes the importance of senses and knowing in organizational routines. Inspired by Feldman & Pentland (2005), Figure 1 represents the conceptual framework enriched by the dynamics that appeared on the field:

Insert Figure 1 here

The final finding of this paper is that workers appear to develop, within their repetitive gestures along the factory lines of production, a sense of elegance. They share an aesthetic perspective of their gestures, from acquisition to performance and transmission. This echoes with the conceptual framework; yet, again, with a strong emphasis on corporeality and, most interestingly, on the collective aspect of this intuitive and sensorial dimension in workers’ communities. Most of the time with experienced actors, the technique is perfectly mastered; but, all along the three books, elegance also appeared as a recurring and important element regarding workers’ gestures in factories. Through experience, some workers develop such an accurate gesture that their elegance is not only visible for their peers, but blindingly obvious to anyone (Galard, 1986). At one point, the mastering of gestures merges technique and aesthetic, and embodies artefacts so deep in the practitioner’s flesh that they become body parts. And from time to time, the aesthetic of the gesture becomes so pregnant that the task disappears: the gesture is beautiful in itself (David, 1996). Obviously, an achievement, an orientation, still lies in the background, but, on these occasions, elegance imposes itself to the observer. Such beauty cannot be achieved without technical mastering, and the more the observer shares this mastering, the more s/he will be able to appreciate it. Building on the many considerations made by mathematicians about elegant demonstrations or equations, and inspired by the accounts of workers studied earlier, three characteristics for elegant gestures could be proposed. First, the elegant gesture is practical; it achieves its original, technical aim and remains efficient in ever changing contexts. Second, it appears simple, even though it is not; elegant gestures are fascinating because the practitioner makes it seem easy to do, effortless despite the many difficulties of adaptations. Third, an elegant gesture is original; it carries a signature, the style of his/her practitioner is rendered visible. This elegance of gestures within organizational contexts is extremely rich in terms of communication,

efficiency or learning, and would constitute another very interesting development for further research. Indeed, technical gestures cannot be fully understood without taking into account the elegance that practitioners develop and appreciate individually and collectively.

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Figure 1. Understanding organizational gestures: technique, aesthetic and embodiment

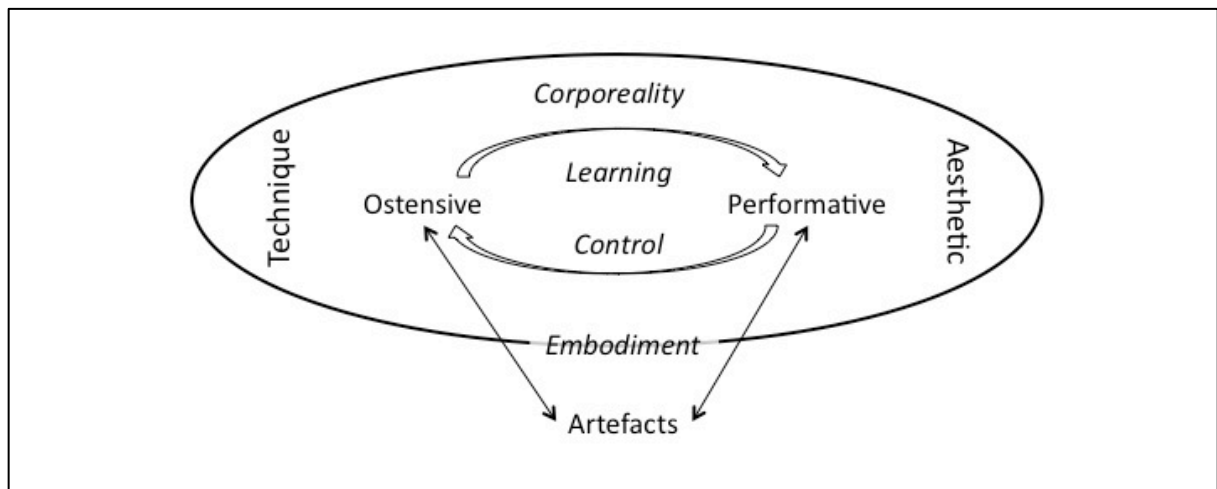


Table 1. Sources for the Field Study

Title	Travaux (<i>Men at work</i>)	L'établi (<i>The workbench</i>)	Les gens d'usine (<i>Factory people</i>)
	1979 247 pages	1981 187 pages	2002 598 pages
Author	Georges Navel	Robert Linhart	Nicolas Hatzfeld
Point of view and company	Manual worker in several car factories	Sociologist and militant worker at Citroën	Historian and worker in a Peugeot factory
Genre	Biography	Narrative ethnography	Monograph
Summary	The author was a manual worker all his life, going from factories to construction sites for nearly 60 years. He gives a detailed description of what he did during his 'career' but also how he felt, what he thought, how he has learned and how he has taught. His story isn't only built on his memories, but also on notes written on a notebook that he always carried with him, in his pouch.	After achieving his PhD and the <i>Ecole Normale Supérieure</i> , the author joined the communist party. He decided to enter the <i>Établi</i> movement, composed of intellectuals willing to abandon their privileged status, to enter factories to work and to "fight from the inside". Even though he describes the context from an activist's point of view, his ethnographic background remains ever-present in his descriptions.	Based on his experience, interviews of young and old workers and multitude official documents, the author analyses the ways of production, their organization and management and their evolutions in the automobile industry. He presents the workers' activities and experiences during several periods of time in the factory's life, from its creation in the 1940's to the 1990's.

Table 2. Data Structure

1 st Order Concepts	2 nd Order Themes	Overarching Dimensions
Factory work is hard so gestures have to be efficient in order for workers to make it through the day.	(a) <i>Effort, Efficiency & Economy</i>	Gestures' corporeality
Repetitive body movements, though efficient, are exhausting and, often, boring.	(b) <i>Bodies, Fatigue & Boredom</i>	
Workers incorporate their task; their gestures and tools are slowly inscribed within their bodies.	(c) <i>Embodiment, Artefacts & Senses</i>	
To achieve their tasks, even repetitive ones, workers have to be agile and to cleverly adapt.	(d) <i>Appropriation, Adaptation & Agility</i>	Learning gestures
Learning a gesture starts with observation, but also requires concrete trials and errors before the worker becomes a model.	(e) <i>Watching, Doing & Showing</i>	
There is, within a gesture, an inner characteristic rhythm that workers share while working side by side.	(f) <i>Individual and Collective Rhythms</i>	
In factories, learning is organized and formalized, if not finely defined in training programs.	(g) <i>Organized Training</i>	Controlling gestures
Factories are 'scientifically organized', structured to be efficient even though actual actions have to be adjusted, if not embezzled.	(h) <i>Rationalized Prescriptions & Actual Performances</i>	
On a production line, areas are defined but also tactically exploited through time and space.	(i) <i>Spaces of production</i>	
Workers are both conscious of the context in which they operate and intuitive in their actions, but never blind or dope.	(j) <i>Consciousness, Intuition & Intelligence</i>	Gestures' aesthetic
Factory work, even though exhausting and repetitive, is seen as a challenge which, when achieved, gives a sense of pleasure and joy.	(k) <i>Pleasure & Pride</i>	
Factory gestures are rarely only described in technical terms, experimented workers are presented as elegant in their efficiency – and apprentices as clumsy.	(l) <i>Elegance & Style</i>	

Table 3. Representative Supporting Data for Each 2nd Order Theme

2 nd Order Themes	Representative 1 st Order Data
a. Effort, efficiency & economy	<p>“We achieved great speed in our gestures (...) We were acting as in crazy movies where pictures followed one another at an extreme speed. We were saving time” (Navel, 1979: 101).</p> <p>“With habits, everything becomes possible; but habits take a long time to come (...) For apprentices, it is very hard. The effort at the beginning is difficult to get through (...) Strengths are vanishing long before the end of the day” (Navel, 1979: 148).</p> <p>“Their gestures are intelligent, well adjusted. Handling a pickaxe without any excess of effort, doing every day a task with regularity, requires skills” (Navel, 1979: 189).</p> <p>“The right gesture that (the trainer) teaches is inherently the one that allows to correctly achieve the task, sparing energy, limiting efforts and avoiding dangers” (Hartzfeld, 2022: 31).</p> <p>“A young worker, showing an excess of zeal would be described as such: ‘he works well, but he still runs too much’” (Hartzfeld, 2002: 32).</p> <p>“Repetition, the source of gestures’ efficiency, sometimes favourable to self affirmation and sometimes to economy of effort, can also be essential component of exertion, fatigue and pain” (Hartzfeld, 2002: 47).</p> <p>“He works like he talks: with precision and regularity. No superfluous gestures. No superfluous words” (Linhart, 1981:19).</p>
b. Bodies, fatigue & boredom	<p>“Workers have to think with their bodies” (Navel, 1979: 10)</p> <p>“In every of their gestures, since their tasks hadn’t required any tension for a long time, was boredom. Accepted and digested boredom” (Navel, 1979: 72).</p> <p>“The whole body is focused during effort” (Navel, 1979: 146).</p> <p>“Exhaustion always comes at one point. You have to summon your strength, avoid being too present, too conscious of the exhaustion, achieve automatism (...) On construction sites, nothing is adapted for us. We are treated as cattle (and) the only way to go through is by castrating your own awareness, scalping your reason” (Navel, 1979: 147-149).</p> <p>“Fatigue is always there, but most jobs are neither stupid nor mind-numbing” (Navel, 1979: 220).</p> <p>“The proliferation of gestures that are directly productive calls more upon involved muscles and requires both mental and nervous focus” (Hartzfeld, 2002: 39).</p> <p>“The shapeless music of the line, the sliding of grey metallic carcass, the routine of gestures; I feel progressively wrapped, anesthetized. Time stops” (Linhart, 1981: 10).</p> <p>“(In the line) I see a battle between life and death. Death: line gears, cars unflinching sliding, identical gestures repetition, never-accomplished tasks” (Linhart, 1981: 14).</p> <p>“I do the math. 150 a day. 220 days a year. At this moment, end of july, he must be at the 33,000th. 33,000 this year he has done the same gestures” (Linhart, 1981: 160).</p>
c. Embodiment, artefacts & senses	<p>“When the piece of steel was heated ‘cherry-red’, he took it with the tongs (...) Then he soaked it to a ‘straw yellow’ or ‘pigeon-throat’ colour depending on the usage he needed” (Navel, 1979: 53).</p> <p>“Outside, the factory was following me. It was inside me” (Navel, 1979: 101).</p> <p>“To shape metal, you have to become one with it, to unite, to be in a constant relationship with it” (Navel, 1979: 243).</p> <p>“Industry requires a lot. Eyes aren’t made for controlling manual work at a hundredth of millimetre (...) In our tasks, tact played an important role (...) To obtain a perfect fitting, piston rod needed a well adjusted filing down. But the nature of the task excluded the use of measuring instrument. The hand was groping for the right adjustment, without the eyes which would have needed the precision of a microscope to guide them” (Navel, 1979: 243).</p> <p>“This cobbled workbench, he threw it up, modified, transformed, completed</p>

himself. Now he is as one with it.” (Linhart, 1981: 163).

“Routines are pushed in your head and muscles until they become imperceptibly foreign to yourself – and then it takes a certain amount of time for you to get rid of these absurd habituations” (Linhart, 1981: 147).

“(Toolboxes) are built on an intimate rationality, making them impossible to confuse or trade” (Hartzfeld, 2002: 39).

“Although operations on a car are scrupulously defined, the toolbox remains the artefact that convey blurred areas in the codification of gestures (...) It eludes the prescription of formal methods and belong to the autonomous space of workers. In a way, it is the flexibility made into an object” (Hartzfeld, 2002: 39).

Table 4. Representative Supporting Data for Each 2nd-Order Theme

2 nd -Order Themes	Representative 1 st -Order Data
d. Appropriation, adaptation & agility	<p>“The study of a specific station raises questions (on) the multiples forms of worker’s virtuosity, and on the choices between different modes of reactions by workers facing the pressure of the line” (Hartzfeld, 2002: 29).</p> <p>“Holding your station consists in putting up to the linear movement of the production line with another movement, gestures responding to the task to achieve, the fluidity of gestures against the flow of the line” (Hartzfeld, 2002: 31).</p> <p>“It is the worker who, in his appropriation-learning, think and reconstruct the sequences that combine several logics” (Hartzfeld, 2002: 32).</p> <p>“I’m out of breath, I look at him working. His gestures look so natural! What do his hands have that mine are missing? Why do his arms and fingers know to work and not mine?” (Linhart, 1981: 23).</p> <p>“I know that the impression of ease is only apparent, that it takes time to master your hand to the millimetre, to tighten your muscles and nerves, to control precisely the pressure of your fingers” (Linhart, 1981: 160).</p> <p>“He has many tools at his disposal – sanding instruments, hammering, polishing, soldering iron, tin, welding torch, mixed in a familiar <i>bric-à-brac</i> where he finds without hesitation – and every alteration requires a specific operation, almost never identical to the previous one” (Linhart, 1981: 162).</p> <p>“I learned with craft techniques, almost without machines. In doing so, I’ve learned to file right” (Navel, 1979: 52).</p> <p>“We had to tighten the screw again, without effort, quickly, in order to carefully file, approaching the definite measure (...) Precise and flexible in every gesture, we were monitoring with tact (...) It was a well-cadenced work, in touch with our intelligence” (Navel, 1979: 245).</p>
e. Watching, doing & showing	<p>“(Training starts with) demonstration, then trials of the ‘trainee’, and explanation of ‘key points’ or decisive elements of the operation” (Hartzfeld, 2002: 31).</p> <p>“Learning gestures is fundamentally progressive: demonstration, (...) trials and confrontation with the stopwatch when the sequence of movements is understood (...) Since many operations can only be practised on the production line, it is on site that part of the training is done” (Hartzfeld, 2002: 92).</p> <p>“It takes time, lots of time, to make a lumberjack, a reaper, even a earthwork contractor. There is a technique of peach picking” (Navel, 1979: 9).</p> <p>“When I had to, I tried the sledgehammer. But most of the time, I was observing the moves of the journeyman training me” (Navel, 1979: 52).</p> <p>“Without pride nor arrogance, everything he knew to do appeared to him as simple to teach. His main response was: ‘I’ll show you’ (He) was different from us, his experience set him apart. It was like he had never learned (...) For Léorat, everything was simple and transmissible” (Navel, 1979: 234).</p> <p>“‘Show him, Mouloud’ (...) It doesn’t look that hard, why doesn’t he let me try? (...) ‘For the moment you just watch, he says, (...) look how I do it, you’ll try this afternoon (...) It’s the tenth car I try without success (...) It looked obvious when Mouloud was doing it, with precise, coordinated, successive gestures (...) ‘Listen, no need to panic like that. Stop for a while and look how I do it’ (Linhart, 1981: 20-22).</p>
f. Individual & collective rhythms	<p>“The tremendous tom-tom of machines speeded our gestures up, striving our will to be faster. Hearts were trying to match the speed of belts’ cracks” (Navel, 1979: 101).</p> <p>“We all work on the same rhythm (...) If it ever weakened, some of us go (along the factory line) to stimulate those who dwindle (...) Avanti kids!” (Navel, 1979: 147).</p> <p>“The weak and the idiots are ruthlessly ruled out by the production rhythm” (Navel, 1979: 147).</p> <p>“From the repetition of the same effort a rhythm emerges, a cadence where the body finds its fullness (...) There is at least one hour during the day during which the body is happy” (Navel, 1979: 189).</p>

“I had imagined (the production line) evolving at a rapid rhythm – one of ‘infernal pace’ (...) The first impression is, on the contrary, of a slow but continuous motion of all the cars” (Linhart, 1981: 9).

“(After a reorganization of the production line, workers were) scattered, violently deprived of a working rhythm they had patiently built over the years” (Linhart, 1981: 131).

“When learning on the production line, you start with one operation, then two, then three and so on until mastering the whole. Progress is finally made through rhythm” (Hartzfeld, 2002: 32).

“Progress on the line is made on rhythm” (Hartzfeld, 2002: 92).

Table 5. Representative Supporting Data for Each 2nd-Order Theme

2 nd -Order Themes	Representative 1 st -Order Data
g. Organized trainings	<p>“Every task (in the factory) was timed (...) By observing, watch in hand, the timer seemed to loyally count the time required to produce a piece (...) If the worker’s gestures were to appear clumsy, too slow, the demonstrator showed how to correctly perform the task” (Navel, 1979: 64).</p> <p>“Learning starts in training (...) where the sequence of movements is explained. The trainer times and the operation is repeated until the duration is reduced to a satisfactory level (...) Then, since many operations can only be practised on the production line, it is finally there that part of the training is done, supervised by the worker in charge of the specific position. By his sharpness and his confidence, he is the master of his territory” (Hartzfeld, 2022: 31).</p> <p>“Training schools (guard) the gesture’s norm (and their development) shows a will of standardization, of control on the practices of gestures” (Hartzfeld, 2002: 91-92).</p> <p>“Learning a gesture makes space for a certain autonomy in the practice, for the split in two between gestures ‘for the instructor’ and gestures for actual production” (Hartzfeld, 2002: 92).</p>
h. Rationalized prescriptions & actual performances	<p>“Rationalization as they say. They time (...) They record, they decompose us and reconstitute us to the 10th of second, and, one day, they change our objectives by surprise” (Linhart, 1981: 165).</p> <p>“The scientific management wanders. It doesn’t really have a name, this scientific management. In principle, it is called ‘office of methods and times’ (...) Well, I was given a new welding torch, with a spring that puts its automatically back to its place. (Don’t worry my good man, they measured this spring upstairs: minus 5 seconds, the time you used to take to put it back in place. They expect your time to be reduced or to give you something more to do. In any case, they won’t be lost these 5 seconds!)” (Linhart, 1981: 169).</p> <p>“With 4, 5, 6 normalized workbenches, (workers) would have the exact same gestures that could be accounted for, classified, normalized, divided up by a controller! No more improvisation, something precise to the second!” (Linhart, 1981: 170).</p> <p>“Taylor’s system, inhuman and absurd, if applied in sport, would ask for any beginner in jumping, swimming, throwing, to be able to compete with champions’ performances” (Navel, 1979: 65).</p> <p>“The technical definition of the task to be performed consists in a muddled list of operations (showing) no internal consistency” (Hartzfeld, 2002: 32)</p> <p>“A conflict between realized and prescribed works exists since the entrance of organizers inside factories (...) Fighting against lazing, they try to get control over workers’ tasks in order to make them as efficient as possible (...) There always is a combination between formal rules of the management and informal rules of workers (...) The ‘script’ is something that has to be interpreted” (Hartzfeld, 2002: 35).</p> <p>“Although elementary gestures were written down (...) an ambiguity remained on the definition (...) The gesture was orally and summarily presented - ‘simply begin screwing’ - (but) even if the appropriation of this gesture by workers wasn’t very different, it was inscribed in an ever-present system of control” (Hartzfeld, 2002: 37).</p> <p>“On their side, workers, maybe because of their long experience, almost never practised ‘within the method’ and its technical logic (...) They perform on site (taking) a significant distance regarding formal definitions of tasks” (Hartzfeld, 2002: 38).</p> <p>“(Training programs) are about the preservation of a theoretical norm, as a direct reference, not as the multiple interpretations of successive workers: over the transmissions of abilities and know-hows (...) Specialized workers develop an increasing exclusive practical skill, that escapes more and more from the control of technicians” (Hartzfeld, 2002: 92).</p> <p>“Instead of ratifying a gain in productivity, the worker would hide it, in order to gain some rest” (Hartzfeld, 2002: 93).</p>

	<hr/> <p>“Rationalizing operations on the production line is supposed not to intensify work since they should remove the gesture along with the time allocated” (Hartzfeld, 2002: 100).</p> <hr/>
i. Spaces of production	<p>“Mastering a station and its tasks is first translated by the definition of an area of mobility, by a reduction of the accessible space. Consequently, breaks and gaps in the production are necessary to allow for loosening of limits and for a stretch of one’s space of mobility” (Hartzfeld, 2002: 31).</p> <p>“(On the line) the tenured worker of a station is the master of his territory, and the trainer doesn’t take the risk of competing” (Hartzfeld, 2002: 31).</p> <hr/> <p>“Everyone has, for the gestures he is conducting, a well-defined, yet invisible, area” (Linhart, 1981: 11).</p> <p>“Sometimes, if he had worked fast enough, he would have a few seconds to rest before a new car arrived; he would either use it have a break, or, on the contrary, intensify his pace to ‘go up the line’ in order to gather more head start; that is to say working upstream of his normal space, in the area of the worker on the previous station” (Linhart, 1981: 12).</p> <hr/>

Table 6. Representative Supporting Data for Each 2nd Order Theme

2 nd Order Themes	Representative 1 st Order Data
j. Consciousness, intuition & intelligence	<p>“Not rushing in order to gain time”. In that domain, every gain is the result of a self-awareness, an attention to objects and materials, to the activity’s spatial structure, to the others” (Hartzfeld, 2002: 36).</p> <p>“Apparently mundane gestures can necessitate true intelligence. (Required abilities) are more about the boxer’s science and the artist’s intuition” (Navel, 1979: 9).</p> <p>“I admired those in my team, their sleight in constructing trenches (...) I noticed in many of their gestures a thoughtful know-how” (Navel, 1979: 184).</p> <p>“The happiest movements are those guided by the mind, when attention is there. The most tiring is when you’re absent, without interest for what you do. Work can be a game, a combination of difficulties to be solved by gestures” (Navel, 1979: 213).</p> <p>“I tried to give to my hands as much dexterity as possible, never doing a gestures in which focus was absent (...) discovering the role of tact and sight (...) The intelligence of human hand can shorten any day of labour” (Navel, 1979: 220).</p> <p>“Workers’ intelligence (lies) in every movements (...) without it, everything would be tedious” (Navel, 1979: 229).</p>
k. Pleasure & pride	<p>“Every improvements, every conquest in the gesture becomes a source of intimate satisfaction (and) an affirmation of one’s skills” (Hartzfeld, 2002: 46).</p> <p>“The pleasure of this manual mastering is acquired through a long process (...) Craft skills confer to a man some kind of nobleness” (Navel, 1979: 9)</p> <p>“I was handling pliers, manipulating rolls, going from one to the other, but always aware of my movements. I found in this life of consciousness a pleasure always absent from mechanical work. There was a world where I was neither Paul, not Pierre, but only a man with abilities for a task, where I found more pleasure than in sports or games” (Navel, 1979: 214).</p> <p>“To be fast enough, we were competing against time, like runners who want to beat the record by a few seconds (...) It was required to be fast, it was also a game” (Navel, 1979: 245).</p>
l. Elegance & style	<p>“(While working) there is silence and, for some of them, the harsh beauty of their gestures talking for them” (Navel, 1979: 189).</p> <p>“With lavender, workers are paid by weight. It is a good reason to get agile at this manual game, to lightly handle the sickle and to pick handful of cut spike. (Then) you acquire a recognizable style (...) With every gestures we face some kind of test that our awareness tries to correct, to make them more perfect, more flexible, more efficient” (Navel, 1979: 229)</p> <p>“The three Yugoslavs are able to work together on only two stations instead of three. But just by looking at them you realize that no one else could sustain that rhythm in that space. It’s like looking at magicians” (Linhart, 1981: 34).</p> <p>“I will never know exactly why, but Georges is someone of importance for the other workers. He shows it discreetly (...) He moves along the production lines as in a living room (...) His elegance is like a defiance toward the Citroën machine” (Linhart, 1981: 36).</p> <p>“Each time, he takes a defective car door, looks at it, skims his finger on its irregularities (he examines it, as focused as a surgeon), puts it down, takes a decision, selects the tools he will need and start working (...) A craftsman, almost an artist” (Linhart, 1981: 162).</p> <p>“Most of the worker’s gestures are applied through a logic that is partly strictly personal (...) conferring a characteristic style” (Hartzfeld, 2002: 36)</p> <p>“This personal contribution by workers is known and acknowledged by engineers, one of them talks about efficient and gracious gestures that convey a double logic of maximum efficiency: optimum performance and lowest effort wasted” (Hartzfeld, 2002: 36)</p> <p>“(Workers’ self affirmation) is about sensation, about one’s gestures’</p>

aesthetic” (Hartzfeld, 2002: 46)

“At this stage, two logics of improvement are possible, aesthetic and competition” (Hartzfeld, 2002: 46)
