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Older workers' workplace learning in manufacturing industries: subjectivity

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Abstract

Purpose – The purpose of this paper is to draw attention to older workers (OWs)' subjective engagement in working and learning in the manufacturing industry. Workplace learning (WPL) literature rarely considers the subjective side of learning from a cultural historical activity theory (CHAT) account.

Design/methodology/approach – The paper adopts a CHAT-influenced perspective: learning is a cultural and collective process and a dimension of activity. Subjectivity is conceptualized through the ideas developed by A.N. Leontiev. The design takes the form of multiple embedded case studies, within two companies which approximate two types of production strategies, mass production and flexible specialization. OWs were interviewed about their professional lives.

Findings – The subjective side of WPL is differentiated by the two types of production strategies. These strategies, together with other life experiences, create different opportunities for the OWs' subjective engagement. Motives for WPL are linked to the needs for learning in the workplace, and to the ideal image that OWs have of their workplace.

Research limitations/implications – The theoretical framework requires an interdisciplinary study and leads to conclusive remarks which overcome the boundary of the educational field. More investigation is needed about the gender issue.

Originality/value – This paper enlarges the view on WPL for OWs by using the concept of the "object of activity" to connect industrial practices and OWs' subjectivities. This concept has been used to explore the motivational aspects of learning in an original way. The findings of this paper will assist policy-makers to better understand WPL and the production strategies implications supported through industrial policies.

Keywords Industry, Employee involvement, Work organization, Older workers, Workplace learning, Subjectivity

Paper type Research paper

Introduction

The European Union (EU) considers lifelong learning (LL) pivotal to building a knowledge-driven economy. Continuing vocational education and training is considered a part of LL and refers to the continual learning process of workers to keep their knowledge relevant and workers themselves employable. Despite the definition of learning as formal, non-formal and informal (European-Council, 2011), the EU discourse on LL and adult education overlooks the issue of how workers who engage in work activities are experiencing workplace learning (WPL). Although the EU acknowledges workplace participation and democracy within its industrial policies, it holds back from linking this discourse to that of LL. There is growing literature that suggests that learning occurs through participation in collective activities; however, few studies



extend this concept to production strategies and their relevance for learning in the industrial contexts. On the few occasions it does occur, there is a lack of attention to the subjective dimension of working and learning.

This research examines the issue of WPL with older workers (OWs) in manufacturing industries. It adopts a cultural historical activity theory (CHAT)-influenced approach and aims to draw attention to the subjective side of WPL. OWs approaching retirement have developed with industrial activities that often are challenged by global competition. It will be argued that industrial production strategies are relevant to LL because they provide opportunities for WPL and personal development through work as long as they allow workers to be engaged and participate in the development of industrial activities.

The literature offers a variety of explanations as to why OWs participate in continuing vocational training less than their younger colleagues. These explanations range from studies based on social mechanisms of discrimination of older people, models emphasizing their disengagement from economic activities, to studies based on economic cost-benefit theory, psychological models of decline and educational arguments referring to prior learning experiences and individual dispositions. In this broad spectrum of literature, work, ageing and education are usually discussed separately. When the focus is work, individuals are seen as *hominini economici*, guided by self-interest and economic calculations (i.e. cost-benefit discourses). When the focus is on ageing, the discourse emphasizes decline, structural dependence and discrimination. In this case, individuals are seen as powerless subjects in front of the social- or biological-dominant trends. When the focus is on education in later age, the emphasis is on empowerment and remedies against the cognitive decline.

Educational studies have made some interesting attempts to consider the contextual side of learning together with the individual side, ending up with a swing between emphasis on an individual's agency and emphasis on the influence of contexts. My interest is in trying to reconnect these two points of view – the individual and the contextual sides – by adopting a CHAT-influenced perspective. It is my conviction that to understand how to support a longer professional life, I need to look at how employees engage in their working practices and how their professional development is linked to the jobs they are responsible for. The case of older employees is interesting because they have already completed a large part of their working life and so I can analyze the interplay between their current working practices, the social dynamics in their workplaces and their subjectivities.

This article will review literature based on CHAT. The only exception will be the use of sociological and political economy literature to identify types of manufacturing industry. In the next sections, I will present the theoretical framework of my research to investigate the subjective dimension of OWs' working and learning in the industrial context, noting that this issue has not yet been widely examined in CHAT.

Learning in the CHAT: a single development of people and activities

Approaches based on CHAT are appropriate in shedding light on:

- learning as a cultural and collective process in economic and social contexts; and
- subjective aspects in working and learning.

Such a theoretical perspective is even more useful when social and economic contexts are in the process of transformation (Stetsenko, 2014), when the distribution of resources and power changes and when symbolic mediation integrates new ideas and new ways of thinking (Pihlaja, 2005; Virkkunen and Pihlaja, 2004). The conceptualization of learning as an inter-subjective and collective process is typical of a practice-based approach. CHAT is based on Marx's philosophy of the ontology of consciousness as developed in "The German Ideology", with its view of the primacy of human activity in shaping individual consciousness. Russian psychologists adopted Marx's thinking to develop a cultural and historical approach to psychology, and to search for resolutions to the principal theoretical problems encountered by behaviourism, Gestalt psychology and psychoanalysis (Bakhurst, 1991, p. 62; Leontiev, 1978, p. 2). The project was started by Vygotsky, who gave great insights into the origin of individual development. He developed what he called cultural-historical psychology. Leontiev, one of his most renowned followers, elaborated the related theory of activity.

Contrary to the primacy of either external stimuli or internal processes in behavioural and cognitivist frameworks, the cultural-historical psychologists shifted the focus to the relationship between subject and object and the social and historical nature of this connection. The mechanism of these connections was elaborated by Vygotsky: the formation of the intra-subjective plane of mental activity is shaped by the transition from the external inter-subjective plane, mediated by cultural tools (Minick, 1985).

Although Vygotsky and Leontiev both argued the socio-cultural origin of psychological development, they each focussed on different aspects of it. The former focussed on the mediation of language in social interactions, whereas the latter focussed on the driving force of the objective activity. Leontiev's contribution expanded cultural-historical psychology, pointing out that individual action always acquires its meaning when considered as a part of an objective activity (or object-oriented activity). In his view, activity is object driven. The object of an activity is defined as its true motive, which is to answer one need or another. Need cannot direct an activity: for instance, hunger cannot direct the hunt; it is only capable of activation and excitation. The hunt is a collective activity driven by its object, in which each hunter has his own task to carry out. For example, frightening a herd of animals by shaking the bushes can only be understood when considered within the overall context of the activity as being an action aimed at forcing the animals toward the other hunters (Leontiev, 1978).

In CHAT, individual development is based on and takes place through social interactions in collective and material activities, mediated by artefacts, symbols and motives developed throughout the evolution of the human species. Individual and social developments are seen as a single development (Cole and Wertsch, 1997).

This conceptualization of development brings forth a number of considerations on the issue of LL – and particularly WPL – for OWs in an ever-changing economic and social context. First, from the CHAT perspective, the process of learning is regarded as interwoven with the development of the context to which individuals belong. Within this viewpoint, as the context develops, so can the individuals and vice versa, through the process of internalization/externalization of artefacts and cultural tools, and the subjective use/transformation of them during the activities (Stetsenko, 2005). Therefore, I refer to WPL – and not only to the continuing vocational training which includes classroom learning only – to mean all types of learning related to working and professional life. Second, this single process of development raises the issue of a new

The subjective side of activity

People carry out actions within the context of collective and material activities. The way in which they act – the choices they make, the emotions and feelings they show – reveal their subjectivities. Leontiev defines subjectivity as a hierarchy of personal senses of motives (Chaiklin, 2001; Leontiev, 1978; Minick, 1985). For example, two motives could be ‘respecting safety rules’ and ‘producing parts’: a worker may consider safety a priority over producing parts because of her concern about health. Another worker may do the opposite, because he attaches a sense of weakness to respecting safety rules. These different hierarchies of the two motives indicate different subjective aspects. Motives are collective and are attached to social meanings. People internalize the motives behind activities and their social meanings, but then personalize them with their own personal senses. These personal senses arise from one’s personal relationship with the motive/object of activity, according to their relevance to personal circumstances of life and previous experiences of internalization of other motives. Although Leontiev puts forward that perspective on object-oriented activity and its structure with the aim of exploring the volitive aspects of participation in collective activity, his vision emphasizes the internalization dynamic to the detriment of the opposite movement of externalization and dismisses the subjective moment (Stetsenko, 2005) as a moment of relative autonomy.

My CHAT-influenced perspective makes the concept of object-oriented activity central for its fundamental part in the transformation of the world, in both its internal/external aspects. Within the unified threefold system of interactions between material, collective and subjective processes (Stetsenko, 2005, p. 74), the creation of personal senses represents the possibility of engagement in object-oriented activities.

There are those among Leontiev’s students who propose the interpretation of personal sense as inter-object instead of object-related elements. Adhering to this perspective, personal senses are inter-object, for they arise from “connections between people, objects, and phenomena that surround a person in the time and space” (Bratus as presented in Engeström, 2014, p. 132). Bratus discusses the position of personal senses in respect to social meanings, seeing an ambiguity in Leontiev’s work, in that the first appear as secondary to social meanings. In my research, I tend to see a) inter-object connections as situated within the object relatedness of the moment in which the interactions occur and b) social meanings as internalized, ‘subjectivized’ and externalized as personal senses.

In other words, subjects engage in activities through the relationship that they develop with the object/motive of the activity. Subjects engage in material and collective activity when they can recognize a personal sense in participation. This is relevant to my discourse on OWs learning, as it highlights a way of considering the mechanisms which lead OWs to engage in their working lives and related WPL.

A few CHAT studies examine engagement at work and consider the subjective dimension (Edwards and Daniels, 2012; Engeström, 2007; Nardi, 2005; Sannino, 2010), but none of them focus on the personal relationship with the object of activity taking into account the features of the activities. The work of Edwards and Daniels is the most close to mine, because they adopt the concept of motives and consider two different

institutional modalities in the children's services. However, they focus on societal motives and not on personal senses of those motives.

Because activities are pivotal in my theoretical framework, I need to elaborate on types of industrial activities. The next two sections are devoted to this task.

Working and learning in manufacture in CHAT

In CHAT, only a few studies on learning at work take into account the form of production. Engeström (1987, 2004) was the first scholar to develop an interest on organizational changes in interconnected activities systems (e.g. the production system and the client system), which he interprets through his theory of expansive learning.

Engeström (2007) concentrates on what some authors consider to be in management the most advanced form of production – co-configuration – where employees, managers and customers work together to give shape to the object of the production and service organizations. Other scholars, drawing on Engeström's studies, have dealt with a wider range of production forms to reconstruct the history of the relationship between production forms and types of WPL (Pihlaja, 2005; Virkkunen and Ahonen, 2004; Virkkunen and Pihlaja, 2004). These works draw on an economic cyclic view of the history of manufacturing, with the idea that the new form of production supersedes the old one (e.g. mass production has overtaken craft production). These authors argue that there is a link between the cycle of transformation of a business, or the forms of production, and the type of learning needed. The works of Virkkunen and Pihlaja recognize three forms of production and three types of WPL conceptualized as systems of distributed generalization, stemming from types of observation as perceptual, empiric, abstract and embodied in artefacts and tools. The three forms are:

- (1) mass production with the Taylorist principles of management;
- (2) flexible manufacturing with total quality management; and
- (3) ICT-based transformation of business which can benefit from a theoretical-genetic type of generalization (as the one designed in the change laboratory by Engeström and discussed by Pihlaja, 2005).

Although these works prove interesting for their discussion on the link between types of production and types of WPL, I see two problems. First, the cyclic and linear visions of economic and learning history tend to hide the fact that the manufacturing industry is populated by a variety of production forms struggling to gain support from the institutions that regulate the market (Piore and Sabel, 1984). Second, reference to the concept of generalization as a way to conceptualize WPL brings the focus onto the learning of managers, designers and planners of working processes, but tends to exclude other workers, or consider them only as trainees and not learners (at the exclusion of the latter form of production). As many scholars have shown, the features of work organizations are pivotal in favouring WPL (Billett, 2001; Fuller and Unwin, 2006).

For these reasons, I prefer to name as production strategy what these scholars call form of production. In particular, I want:

- to preserve the idea that production is the outcome of a struggle between different forces; and

- to revisit the relationship between production strategy, labour phases and work organizations to frame my investigation on workers' engagement and motives for WPL.

It is this interest that influenced me to refer to the sociological and political economy literature.

Production strategies: a concept to identify different object-oriented activities in the industry

I use the concept of production strategy as an analytic tool to identify motives/objects in organizing economic activity. I conceptualize it as the way to organize the labour process (i.e. work phases) and work organization to comply with the object of the activity.

The connections between models of industrial strategies and socio-cultural contexts create social aspects and meanings on work issues. In my research, these relationships provide the background for my investigation on workers' personal senses about work.

Through the literature review, I identified seven types of production strategies which I divided into two groups according to the kind of relationship between conception and execution. The separation of conception from execution is one of the most important Taylorist principles of management. It is applied with varying degrees of separation and relates to autonomy levels. I propose to interpret the theoretical implications of this managerial principle for the motivational dimension of work using Leontiev's distinction between action and operation (1978, 65) and his concept of the hierarchy of personal senses of motives. This allows to examine what subjective relationships with the object of the activity are implied for OWs according to the degree of autonomy they enjoy in their jobs.

Briefly, the group of strategies based on the separation between conception and execution is as follows:

- *Mass Production*: Its labour process is fragmented into small tasks; work organization is hierarchical with many levels; the organizational logic is to produce quantity; products are highly standardized and stable over time.
- *Flexible Mass Production*: Identified by Boyer (1987) and developed by Regini (1995), who highlights a polarization between high-skilled and low-skilled workers. This strategy adopts the above-mentioned Taylorist principle in the production department.
- *Modular Systems*: Design and production are divided up into a network of enterprises, to which production phases are outsourced and sub-contracted (Sturgeon, 2002; Abreu *et al.*, 2000). The separation between conception and execution is also dislocated among the companies.

The other group assembles the production strategies characterized by integrating conception and execution to some degree. The better example of this is craft when the skilled worker carries out his or her work by constantly alternating design and execution. The strategies are:

- *Process Enhancement (or Lean Production)*: Initially developed by Toyota; it aims to reduce all wastage (of time, space and resources) by continually improving the

production organization (Womack *et al.*, 1990). Ideally, each worker can stop the assembly line if they discover a defective part or are falling behind.

- *Flexible Specialization*: According to Piore and Sabel (1984), this production organization made a reappearance when mass production revealed its limits in the 1970s. It refers to small and medium businesses, located and interconnected in industrial districts, working in a complementary manner to produce a wide and changing array of products with skilled workers using multi-purpose machinery. Collaboration across the hierarchy is essential and fosters innovation.
- *Pragmatic Collaborations*: This ideal-type responds to the contradictions of the modular systems (Herrigel, 2004) and focuses on the integration of modules and phases. It considers collaboration as inescapable to ensure quality and accelerated processes (Whitford and Zeitlin, 2002).

Based on the theoretical ideas presented above and this account on production strategies, I developed my working hypothesis – explored in the empirical work – that production strategies create the conditions for workers' personal relationship with the object of the activity, and their subjective engagement and WPL.

The research methodology

A number of authors have reflected on the fact that there is a link between theoretical approach and the method adopted for the empirical work. My object of inquiry implies a complex interrelation of aspects occurring in industrial activities in which OWs work, and indicates the need to collect information regarding the production, as well as the narratives of the workers about their work and learning experiences. Hence, businesses – and consequently, the OWs working within – are the units of analysis that are most consistent with the theoretical approach adopted here.

To choose which type of companies to analyze, I used the above list of production strategies and selected the ideal types of mass production and flexible specialization models as two production strategies that are characterized by contrasting features in terms of labor process design and work organization. By comparing two different ways of producing goods, I will highlight the differences in the subjective engagement of OWs in their workplace.

Thanks to my personal contacts and the support of trade unions, I identified two enterprises whose management agreed to an interview. However, the HR director of one of the factories representing the model of mass production did not allow me to interview the OWs. I obtained the interviews with some OWs with the support of the trade union. The two companies are located in the area of Turin. This Northwest Italian region has an ageing workforce as well as a context of transformation from the traditional manufacturing economy toward a knowledge-based economy.

The design was multiple-embedded, where the two businesses represented two case studies – and two units of analysis – with embedded individual units of analysis within (Yin, 2003). The data on OWs, executives and trade unions' delegates were mainly collected through interviews and a few formal and informal meetings. The focus was on OWs over 44 years of age working on the shop floor. This age group is the most frequently used in literature. Yet this was just an initial point of reference, useful in my communications with the directors and in stating whom I wanted to interview. My conceptualization of an older worker relates to those who are chronologically old and

have accumulated a good deal of experience and have made sense of it. I interviewed nine OWs and a few managers between October 2007 and July 2008. Every encounter was taken as an opportunity to observe the environment in which the interviews were undertaken and generated field notes. My interviews were free discursive interviews: I invited the OWs to tell me about his or her professional life and asked very few questions.

The transcription of the interviews followed a system of codes developed in the discourse analysis to take into account the fact that conversations are a social exchange and construction of meanings, imbued with emotional tones. Emotions and feelings reveal subjective aspects in collective activities, as mentioned above.

I analyzed the transcriptions finding inspiration in the constant comparison method (CCM) as presented by Boeije (2002). Indeed, my analysis was guided by the developed theoretical framework – contrary to what prescribes the grounded theory to which that method is related. Yet I was open to the appearance of new elements, and the CCM is apt to this aim. I looked for common and different themes across the interviews in each case study and between case studies, to shed light on the personal relationship that the OWs had with their job and the company they worked for.

Working and learning in mass production and flexible specialization: different ways of feeling engaged at work

Company E1 approached the mass production model. It assembled parts on assembly lines. It employed 600 workers. The large majority of workers on the assembly lines were women. I interviewed four female OWs at the assembly line.

Company E2, with production representing the ideal type of flexible specialization, produced the parts necessary for the field service of complex – sometimes old – machinery. Jobs on the shop floor varied greatly and made use of lathes, milling cutters and welders. Two hundred workers worked in Company E2. Only male workers were employed on the shop floor. I interviewed five male OWs.

I am providing a short synthesis of the findings and few excerpts from the interviews to show how I detected subjective aspects in relation to working and learning (for an extended presentation see Migliore, 2013).

The analysis showed that WPL for OWs linked to experiencing production strategies and the personal method of living it. This subjective dimension surfaced through references to previous and parallel experiences, professional and non-professional, when OWs shared their stories and expressed emotions of pride, achievement, regret, hope, frustration, anger, through changes in the their voice, pauses, interruptions, hesitations and the body language.

My hypothesis on the role of the Taylorist managerial principle in explaining the personal relationship with the object of activity is confirmed so far. Differences in the personal engagement of OWs in their jobs appeared among the production strategies clearly. OWs on the assembly line had more difficulties seeing and understanding what challenges were being faced by Company E1. Yet their relationships with colleagues, foremen, managers and trade unionists represented opportunities to discuss and elaborate ideas on what the business needed. From my interviews and field notes, it emerged that OWs in Company E1 had their own vision on what production strategy was and should have been, a vision which guided their working commitment. Many excerpts from the interviews showed how female OWs desire and view work as a joint

activity, based on collaboration, to solve problems when they arise. Yet this was not the case in their Company E1. These workers struggled in working relations in which they found difficulties, such as understanding what to do to solve problems. In this excerpt, Ms A tried to understand why management had not solved a problem she was having in her line for three months, thinking that it was her fault. The interview, as all of them, was in Italian, then translated in English, trying to preserve the integrity of the original language:

For example the other day I have said to him [the engineer in charge of solving problems at the assembly lines] that I have, have in a line a problem which we don't succeed to solve, it is three months now and they are keeping saying to me the mechanics whom they have, that they don't have the spare parts. Now yesterday I have written to him and now let's see how it will end//(smiling)

Me – This is curious.

Eh, eh, because he says that they don't have enough mechanics, before they used to have too many of them now they have too few of them and therefore one looks for [...] that is, it is not that one wants to give all the problems to him, however one tries to "look I have this problem I don't succeed in solving it despite I have asked twenty times, however we have said to these persons to solve the problem, I have not succeeded". Either it is me that I would not have the ehm the strength to make myself respected, I don't know//(smiling), perhaps it is my fault//(smiling)." (par. 1,098- 1,102)

This excerpt demonstrated the personal nature of Ms A's relationship with her job, which was connected to a network of organizational relations. She was keen to solve problems, ready to question herself and her capability to obtain what she needed. She was engaged, but with feelings of frustration, as identified in other parts of her interview.

These female OWs felt that they were only recognized for their dexterity in assembling parts quickly and precisely. They reported that some managers referred to them as "Le Manine" – the "little hands". Regarding learning desires, some OWs would have liked to know more about what they were assembling, while others would have liked to see greater quality control – about which they had received training. Yet OWs' views on what was needed in terms of WPL seemed distant from the challenges which Company E1 was coping with. The interviews and conversations showed that Company E1 was facing a fierce global competition in the manufacturing sector and suffering from some disorganization in its management at the same time. These circumstances gave little margins to the company to invest in training other than the standard one and to organize quality control efficiently.

In Company E2, the workers performed more complex tasks and received more information about their work from management. The manufacturing director used to gather all the workers together at the beginning of each job order. Compared to Company E1, it seemed that Company E2 operated in a more consistent way because of a greater communication among the different sectors to comply with the company's production and market strategy. The CEO referred to the strategy by mentioning to a socio-economic change and the need to emphasize "knowledge" and not "goods" only. He meant that Company E2 had to add value to its material goods by knowing what customers needed and adapting to their requests:

There is also a market change: today knowledge counts more than goods, flexibility more than – let's say – habit. Therefore, if this company – as all the other Piedmontise companies – if it had carried on working according to the old model, absolutely it would not have been competitive on the market. (CEO, par. 12)

In other parts of the interview, he pointed out the importance of the professional knowledge developed by the OWs in the shop floor. The workers' narratives reflected this idea of the importance of the professional knowledge created and accumulated by working. For example, Mr G and Mr C said:

The one [professionalism] you make here is excellent and also a bit more manual, here you succeed in putting a bit more of inventive, you succeed in putting of your own in, theen thus you grooow gradually up. (Mr G, par. 75)

Fifty years old you have had experiences [...] you can have a wide experience, but it is nice to transmit it to someone (Mr C, par. 465).

They told that the jobs in Company E2 allowed to be professional creative and to develop high-level skills: the interviews also demonstrated that professional knowledge came from their passion and engagement for their jobs ("putting of your own in").

OWs in Company E2 possessed high levels of skills collectively and did not feel the need to learn more. Some of them expressed concern that their professional knowledge would be wasted with their retirement. This concern showed engagement and pride about their professional achievement developed in their lives. It also showed that they were thinking of the approaching retirement, perspective which was nearly absent in the interviews with the OWs in Company E1.

Discussion of the findings and conclusions

The research found that OWs in Company E2 developed strong motives to engage in their work due to the professional knowledge they accumulated in the relative autonomy of their jobs. A greater sense of motive for engaged working and learning was made easier by the passion these workers had for mechanics, and the fact that professional knowledge was valued by management. In Company E1, professional knowledge was linked to the practical side of assembly, attention to quality and the application of organizational and safety rules. However, this knowledge was not valued neither in the firm nor in the society where this type of job is considered low skilled. Yet the female workers refused to be affected by this view of their job (typically expressed by the term "the little hands") and thought that their job was valuable. So they were engaged and tried to improve the workplace as much as they could. They imagined that workplace improvements were possible and were full of anger and hope that some changes had to occur, because it was evident to them that changes were necessary.

This research provides an initial view on the subjective side of working and learning in the manufacturing industrial activities from a CHAT-influenced perspective. OWs in both companies were showing engagement, but this latter did not lead to motives for further WPL for everyone. The female OWs in Company E1 showed more interest in further learning than the male OWs in Company E2. These latter had already developed individual and collective high skills, thanks to the type of production and strategy of their company. While the latter finding does not come as a surprise, the one related to Company E1 is unexpected. Moreover, the female OWs in Company E1 seemed engaged

as stakeholders more than what emerged about the OWs in Company E2. The female OWs displayed care and vision about the whole organization, while I found the male OWs in Company E2 more interested in their own task.

This finding highlights that the subjective relation to the production strategy might also be explained by gender differences. CHAT literature provides few insights on gender differences at work (John-Steiner, 1999; Hasse, 2002), while gender studies on organizations centre on societal inequalities (Calás *et al.*, 2014). There is still much to investigate on how a wider range of activities connected to reproduction (Acker, 2004) with their heritage of social meanings, beliefs, values, reasons, motives could be linked to the personal senses of working and participating to the life of a company. This point recalls the issue of who has designed the production strategies and how much the latter ones are “gendering” organizations (Acker, 1990; Probert, 1999): how far the fact that industrial activities have been designed mainly by men can influence the range of possibilities of making sense of those industrial productions by female workers? I am leaving these questions to further research combining CHAT and feminist studies as initiated by John-Steiner (1999) and Hasse (2002). So far this research shows that WPL for OWs is not only determined by the factors usually mentioned in the standard literature, such as previous learning experiences, OWs’ understanding of what learning is, the factoring-in of time available to attend courses, financial incentives, but also determined by other aspects that should be taken into account as motives for learning, in particular the subjective relationship to jobs and what learning needs this personal relationship allows to recognize, knowing that needs have cultural and historical origins in the same activities. The subjective motives are usually disregarded in the EU’s discourses on LL due to the implicit assumption that policies cannot impact on them. This study suggests that WPL policies can deal with motivational aspects if they are combined with industrial policies. The latter ones should consider production strategies which favor innovative workplaces, where working and learning are maximized taking into account of the subjective aspects of the activities.

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