

POWER, MISCOMMUNICATION AND CULTURAL DIVERSITY

Applying a Discourse Analytic Lens to Vocational Education Practices

POSITIONING LANGUAGE AND DISCOURSE IN VOCATIONAL EDUCATION STUDIES

This chapter explores the specific domain of what is commonly referred to as initial vocational education and training (VET). It focuses on apprenticeship programmes in Switzerland, where the dominant form of training consists of a complex combination of school-based and practice-based learning. In such a 'dual' system, apprentices experience a plurality of training sites. They move between vocational schools or training centres, where they are introduced to technical and general content, and ordinary workplaces, where they acquire practical skills and encounter the specific requirements of work tasks. Such dual system apprenticeship programmes have been considered as efficient strategies for securing employment and supporting smooth transitions from school to work (e.g., Dubs 2006).

The chapter investigates the role of language and discourse in initial vocational education practices in this context. Among vocational trainers, teachers, managers and policy makers, 'language' is often narrowly regarded as associated almost exclusively with specific pedagogical content and classroom contexts. While, for most apprenticeship programmes at upper secondary level, the curriculum does include both first and second language teaching sessions, language use is rarely regarded as being involved in other areas of the curriculum and as exerting a global influence on the conditions under which apprentices encounter learning experiences in and across various training contexts. To most practitioners in the field, the social visibility of language remains external to the workplace. Yet, the complex processes that shape learning through practice are very much premised on language use and communication. Training and learning occur in ordinary activities, in which individuals provide or receive instructions, share views, solve problems, and display interpretations or evaluations of others' conduct, etc. In other words, learning to work and becoming a member of professional communities very much relies on discourse and interaction.

Following this argument, the chapter advances a new perspective for approaching the role of language and discourse in VET, a perspective that sees discourse and language not as peripheral components of the training curriculum, but rather

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as central mediating tools for vocational learning. According to this perspective, apprentices are not only exposed to vocational knowledge in a range of training contexts. They also encounter specific discourse practices and face numerous and often implicit expectations regarding the ways discourses may be enacted. It is by engaging with these discourse practices that apprentices gain access to knowledge, develop practical skills and are endorsed as legitimate social actors within their various training communities. These language and communication skills are neither transparent nor self-evident. Like other components of vocational training, they have to be recognised and most importantly learnt. Some apprentices are very successful in identifying and acquiring the specific discursive demands underlying the range of practices required. Others are not and may encounter challenging experiences in their journey to a VET qualification. It is proposed that an analysis of discourse and verbal interaction among apprentices, trainers and workers can contribute to a better understanding of the complex learning processes and multiple challenges associated with initial vocational training and the transition from school to work.

This chapter discusses the main objectives, theoretical orientations and key findings of a study conducted at the University of Geneva on the connections between discourse analysis and vocational education. It commences with a brief overview of the specific theory and methodology enacted in the context of the study. The second section narrows the scope to the issue of power and legitimacy in vocational training interactions. Empirical data video-recorded in one training centre and one workplace illustrate how apprentices engage in face-to-face interaction with trainers or workmates and use specific discursive devices in order to act as legitimate participants. This contrastive analysis shows that apprentices respond differently to the specific requirements of communicative tasks depending on their capacity to adapt to the social demands underlying the training practices. Finally, the last section elaborates on these case studies and explores the theoretical, methodological and practical implications of the approach, including the challenges faced by discourse analysts when they enter the complex field of vocational education practices.

RESEARCHING VOCATIONAL EDUCATION PRACTICES FROM AN INTERACTIONAL AND MULTIMODAL PERSPECTIVE

As mentioned above, an extensive study was conducted from 2005 to early 2011 by a team at the University of Geneva,¹ focusing specifically on verbal and non-verbal interaction in vocational training contexts (Fillietaz, de Saint-Georges & Duc 2008). The study was part of a collective effort aimed at building a strong VET research capacity in Switzerland and increasing empirical and theoretical knowledge about how dual vocational training programmes are enacted and experienced in practice. The research questions underlying the study addressed various issues related to learning processes, training skills and curricular considerations. A first line of investigation focused on apprentices and the learning strategies they engage in, at both a cognitive and social level. How do apprentices gain access to knowledge and skills

in the various training contexts? How do they position themselves and experience identity transformations during their apprenticeship? A second line of investigation focused on teachers, trainers and the wide range of professionals who engage with apprentices during their training. What kinds of skills or competences are required to teach apprentices in the various sites? How can trainers or teachers assist apprentices in their learning experiences at school and in the workplace? And finally, a third line of investigation focused on the training curriculum and reflected on the efficiency and effectiveness of the 'dual' training system. How is the 'dual' training curriculum experienced by trainers and apprentices? What continuities or discrepancies can be observed between the learning sites used in a 'dual' apprenticeship programme?

This range of questions unfolds within a theoretical background that can be specified in reference to *situated, social* and *semiotic* approaches to learning in general and vocational learning. Social theories of learning underline the collective and distributed nature of learning processes and the configuring role of 'others' in the ways individuals access and interiorise knowledge and develop skills. The Vygotskian concept of the 'zone of proximal development' is often regarded as a central reference point for such approaches that see learning as involving a plurality of agents, the concept of ZPD being defined as 'the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult *guidance* or in collaboration with more able peers' (Vygotsky 1978: 85). In this perspective, it is assumed that learning and psychological development do not consist of a process of individual and biological maturation but involve close interactions with the cultural environment and with more experienced individuals. By transposing the concepts of guidance and the ZPD beyond the classroom, contemporary approaches to vocational learning have promoted new ways to understand the relations between work and learning. In this respect, convincing alternatives to the distinction between formal and informal education have been advanced (Fuller & Unwin 1998; Guile & Young 1998; Billett 2001a; Evans et al. 2006). In Lave and Wenger's anthropological approach to apprenticeship (Lave & Wenger 1991; Wenger 1998), guidance is seen as an important means by which experienced workers assist newcomers in their ordinary tasks and shape their participation in collective practices. Under such guidance, learning is not exclusively about the acquisition of expertise and practical intelligence, but also comprises a process of identity transformation. That is, under specific conditions, newcomers are progressively recognised as members of communities of practice as they move from peripheral to full participation.

In the field of research devoted to vocational and practice-based learning, it has been argued that direct and indirect forms of guidance provided by experienced workers constitute important conditions for learning in specific work environments. Workers do not always learn on their own and simply by completing activities and tasks. They do so only when specific resources are being afforded them. As Billett (2001a: 35) puts it, 'the quality of direct interaction accessible in a workplace is a key determinant in the quality of learning outcomes. This extends to the availability

of this guidance, the willingness of individuals to assist others and the skills experienced co-workers have in sharing this knowledge'.

It should not be inferred from these claims that the existence of expertise in the workplace and the availability of guidance function as sufficient conditions for newcomers to learn from practice. As emphasised by Billett (2001b), the pedagogical qualities of the guidance can strongly affect the learning opportunities afforded by the workplace, as well as the ways learners elect to engage with these resources according to their personal beliefs, biographies and prior knowledge (Billett & Pavolva 2005). Moreover, as pointed out by Fuller and Unwin (2003), workplaces may be seen as *expansive* or *restrictive* learning environments depending on their strengths or weaknesses regarding a wide range of institutional, contextual and personal dimensions. From that standpoint, the ways experienced workers engage with apprentices may either recognise newcomers as legitimate learners and support their gradual transition to full participation or, on the contrary, reflect more ambivalent institutional arrangements where apprentices have limited opportunities to learn and to experience progressive identity transformations.

When reflecting on the specific resources afforded to learners in the training contexts, social theories of learning often refer to semiotic tools as mediational means for acting and learning. For instance, by transposing Bruner's ideas to the context of vocational education (Wood, Bruner & Ross 1976), Billett's investigations show that *questioning dialogues*, *scaffolding discourse*, *diagrams*, *models* or *analogies* improve the learning outcomes associated with guidance in the workplace (Billett 2001a). These claims are consonant with approaches in applied linguistics that have recently proposed teaching and learning as a meaning making process based on a combination of multiple semiotic systems, including not only language and talk, but also gesture, body position, material objects and symbolic representations such as pictures, diagrams or drawings. For Kress et al. (2001: 10), for instance, 'learning needs to be seen as a dynamic process of transformative sign-making which actively involves both teachers and students'.

Consistent with this social and semiotic perspective on learning, specific methodological principles have oriented our study. These principles can be summarised as follows. First, the methodology endorsed an *ethnographic perspective* in the sense that it aimed at documenting naturally occurring training practices as they take place in ordinary contexts. More specifically, it is through the lens of *verbal and non-verbal interactions* between apprentices and trainers that these practices were investigated. The methodology we selected draws upon concepts and analytic categories from various fields of linguistics, such as conversation analysis (Sacks, Schegloff & Jefferson 1978; Schegloff 2007), interactional sociolinguistics (Gumperz 1982) and multimodal discourse analysis (Levine & Scollon 2004; Kress et al. 2001). These fields have explored multiple avenues of linguistics and are often seen as offering competing or contradictory approaches for analysing discourse and interaction. Nevertheless, these frameworks also share common assumptions about language and social life. In particular, they view language not only as way of

transferring information from speakers to recipients, but as a historical and culturally shaped medium through which individuals take action, achieve cooperation, align identities, and participate in social events. Elaborating on these methodologies, we also aimed at implementing a *contrastive* and *longitudinal* approach by comparing data collected in different training contexts and at different stages of the training programmes.

In order to implement such interactional and multimodal methodology, data were collected through ethnographic observations of a cohort of 40 apprentices engaged in three different technical trades: i) car mechanics, ii) automation and iii) electric assembly. The observations took place in naturally occurring training conditions in the Geneva area and in the various settings involved in the dual training system: i) vocational colleges, ii) private training centres, iii) workplaces. With the consent of both apprentices and trainers to the filming and to the data being used for research purposes, observations were video recorded by the researchers. These recordings took place after a period of preparation during which participants got used to the presence of the researcher and a relation of mutual confidence was established. The complete data set comprises approximately 150 hours of audio-video recordings collected from one vocational college, two private training centres and nine workplaces. These recordings document sequences of everyday training and work activities in which apprentices interact with a variety of experts, ranging from vocational teachers in vocational colleges, to dedicated trainers hired by training centres, to experienced employees in workplaces. Apprentices were mainly male adolescents, aged between 15 and 18. They were observed during their 1st and 4th year apprenticeships, namely at the beginning and the end of their training programme.

A detailed analysis of transcripts and video-recordings was undertaken. A first approach consisted in describing continuities and boundaries between training practices as they take place in the various sites involved in the 'dual' system. Significant contrasts were observed with regard to the ways apprentices gained access to vocational knowledge. In vocational schools and training centres, tasks are generally designed to support learning and teachers or trainers refer explicitly to knowledge (Fillietaz 2007; de Saint-Georges 2008a, 2008b; de Saint-Georges & Fillietaz 2008; Fillietaz, de Saint-Georges & Duc 2010a). In the workplace, vocational knowledge is certainly not absent from production work tasks, but often remains implicit or unnoticed by apprentices (Fillietaz 2010b). Consequently, it is not only the kinds of knowledge available in the various training sites that characterise the learning experiences across these sites (conceptual vs. procedural knowledge). It is also the means by which these various forms of knowledge are made available to apprentices (de Saint-Georges & Duc 2009). Special attention was also paid to the rhythmic conditions in which action unfolds in the various sites (Fillietaz 2008a; Fillietaz & de Saint-Georges 2006; de Saint-Georges & Duc 2007). In the workplace contexts, we observed that time pressure was very quickly brought to the attention of apprentices and strongly shaped the learning opportunities associated with those environments. However, various sorts of responses to this time

by and address questions to apprentices (Fillietaz 2011a). Our observations in this area show that answers are surprisingly neither the sole nor the dominant form of responses following questions in the workplace.

Finally, our research also focused on some of the challenges faced by apprentices when they enter training centres and workplaces at the beginning of their training programme, some of which clearly deal with language and communication skills. Our data show the complexity of these linguistic demands which include ways of addressing colleagues, introducing changes in the participation frame, responding to teasing, reporting on encountered problems and producing or understanding work procedures (Fillietaz 2010b, 2010c). These data also show that apprentices are not equal in their capacities to meet these linguistic requirements and establish their social legitimacy in the contexts in which they engage (Losa, Duc & Fillietaz 2011). It is this aspect of our data analysis we elaborate in the following section.

GAINING SOCIAL RECOGNITION AND CONTEXTUAL LEGITIMACY IN VOCATIONAL TRAINING INTERACTIONS

In this section, we focus on the relationships between trainers and apprentices within dedicated training centres and workplaces. We highlight how interactional processes can lead participants to establish legitimate, recognised and valued social positions within specific communities of practice.

Although vocational training relationships have been extensively studied within education studies and cognitive approaches, understanding them from an interactional perspective is a relatively recent affair. Central to this interactional field is the pivotal work of Lave and Wenger (1991) on learning communities of practice, which has led a number of scholars (Billett 2001a, 2001b; Kunégel 2005; Mayen 2002 *inter alia*) to approach training practices as mutual accomplishments. Such perspectives demonstrate that activity groups and communities of practice do not only carry 'a shared repertoire of communal resources' for learning practices like 'language, routines, sensibilities, artefacts, tools, stories, styles, etc.' (Wenger 2000: 229), they also share a repertoire of mutual moral and behavioural expectancies such as norms, beliefs, values, attitudes, individual and role-based engagement. Thus, capacities, competencies, attitudes and behaviours considered as recognisable, legitimate and valuable – leading to valued social recognition – are somehow contextually defined within communities of practice according to the salient repertoire of moral and behavioural expectancies. This is particularly visible in the Lave and Wenger (1991) core concept of 'legitimate peripheral participation' which:

provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artefacts, and communities of knowledge and practice. It concerns the process by which newcomers become part of a community of practice. (Lave & Wenger 1991: 29)

pressure were detected (Fillietaz 2009b). In some companies, workplace supervisors explicitly softened these temporal constraints on themselves and on apprentices and allowed extra time for instruction. In other companies, time pressure resulted in a lack of time for assisting the apprentice.

A second line of analysis investigated contrasting forms of guidance provided by trainers and supervisors in workplace environments (Fillietaz 2010a; Fillietaz, de Saint-Georges & Duc 2009). Two main models of training were identified in the companies we accessed. In the first model, referred to as 'assisted participation', apprentices were progressively introduced to various facets of productivity (Duc 2008). They generally did not work on their own but assisted experienced workers who took charge of most of the work procedure, and who afforded local opportunities for apprentices to gain access to practice, under close and expert guidance. In the second model, apprentices were immediately ascribed full production work tasks (Fillietaz 2008b, 2010c). Any guidance provided appeared to be more distant and less oriented to training concerns than to productivity. Related to this second line of analysis, another research focus was the collective nature of guidance in the workplace (Fillietaz 2011b). Our data illustrate that although apprentices are usually placed under the responsibility of specific work supervisors, they interact with a plurality of colleagues, experts, workmates, peers, etc. when they engage in productive tasks in the workplace. Our analysis of these data shows that the pedagogical qualities of these distributed forms of guidance may vary quite substantially across contexts. In some cases, they take the form of complementarities and continuities across evolving steps of work tasks. In other circumstances, they consist of misalignments or controversies between competing workers. This supports the idea that a collective distribution of guidance can afford rich opportunities for learning, but it may also lead to confusion when discrepancies emerge between experts or when important dimensions of tasks remain implicit to apprentices.

Another area of investigation was the role of language and communication skills in teaching and training in VET. Language use constitutes a significant component of instructional practices and trainers spend much of their time verbally interacting with apprentices. The ways trainers carry out these interactions clearly affect the type of learning that may arise from such talk. The study was designed so as to better understand some of the typical discourse practices carried out by teachers and trainers in their work. Various strategies for providing instruction in the workplace were identified, most of them finely tuned to the unfolding of productive work tasks (Fillietaz 2009a). We also observed that both teachers and trainers in VET use analogies abundantly when referring to vocational knowledge and skills (Fillietaz, de Saint-Georges & Duc 2010b). We described the main forms and functions of such analogical discourse and showed how it serves both cognitive and social purposes in instruction. We also described how specific content is systematically reformulated and resemiotised when teachers and trainers give explanations to apprentices (Fillietaz, de Saint-Georges & Duc 2010a). And finally, we observed how vocational trainers handle questioning dialogues in the workplace: how they respond to questions asked

Here, legitimacy is about the recognition and acceptance of the apprentice's novice identity by an old-timer. In other words, trainers expect apprentices to act in a consistent and relevant way according to a ratified learner position that eventually enables them to become full-participants of the community.

From an interactional perspective, individuals who are involved in a learning process each need to interactively align to what is normatively expected according to the social role. As shown by Billett (2001b, 2004), gaining access to action in a valued and recognised way may have strong implications in terms of knowledge acquisition and membership within professional communities. But this also requires adequate forms of engagement and adapted responses from learners to what is expected from them in the context. Following Billett's conceptualisation of the dualities between social *affordances* and individual *engagement* in vocational learnings, we see *participatory practices* in vocational training settings as relevant candidates for observing how learning processes may be sustained or hindered in specific interactional settings. Elaborating upon this notion, *interactional participatory practices* can be defined as 'a mutual orientation the interactants manifest to each other and the reciprocal engagement they display toward a joint activity' (Filleltaz, de Saint-Georges & Duc 2009: 99). We take these interactional participatory practices as playing a key role in the ways social recognition may be enacted and negotiated in context and as leading to renewed perspectives for conceptualising social recognition and legitimacy in vocational training.

According to Jacobsen and Kristiansen (2009: 50–51), social recognition has either been approached as an abstract philosophical issue or refers to the 'person's subjective perception of being recognised by his/her surroundings'. The authors observe that 'the intermediary realm between self and others constituted by actual people engaging with each other in actual face to face interaction has been neglected' (2009: 51). By focusing on the trainer/trainee relationship within training centres, we intend to explore this 'intermediary realm' of face-to-face recognition processes. To understand recognition as interactionally, situationally or interpersonally driven, Jacobsen and Kristiansen (2009: 51) adopt a Goffmanian perspective on social recognition (Goffman 1959, 1963, 1974). As is well known from sociolinguists, the Goffmanian framework on recognition is strongly based on the symbolic interplay between participants and the management of *face*. Following Goffman's perspective, people in social encounters produce a certain valued image of their self and are permanently working to orient the impression they make on other participants. Indeed, people are able to play a certain type of person or enact a role through verbal and body language especially. However, people also give off impressions that are involuntary or uncontrolled. Conveying the self-image one wants to display can be hard work, particularly because the recognition of the value of one's face largely depends on others' judgments. Interactional processes of social recognition and legitimacy can thus be referred to as *face work* and impression management.

Following an interactional perspective on social recognition and impression management, we address the following range of questions. How do apprentices

negotiate their participation in communities of practice? How do they actively contribute to their legitimacy in face-to-face interaction? What kinds of semiotic resources do they use to do this? Reciprocally, we are also interested in investigating the perspective of trainers and experienced workers. How do trainers and experienced co-workers shape interactional practices for apprentices? What sorts of resources are afforded to them and how do these specific resources support or hinder apprentices' social recognition?

As shown in our data, answers to these questions depend on the context. In what follows, we give a flavour of this diversity by discussing contrasting case studies of two apprentices belonging to the same cohort of automation apprentices. They were observed during their 1st year apprenticeship in a private training centre and in various workplaces. Diverse abilities to hold participatory positions in interaction can be identified in the ways these two apprentices engage with trainers, peers and experienced workmates. A detailed analysis of three successive excerpts of data will illustrate how participation in interaction may consist in gaining visibility and centrality for some apprentices, or, conversely, in becoming an undesired focus of attention. We illustrate how the discourse and interactional patterns underlying these participation processes may be reproduced in time and across contexts and how they can lead either to valued forms of participation and social recognition or to mechanisms of marginalisation.

Gaining Visibility and Centrality in Collective Instruction Practices

This section draws on empirical data collected in a private training centre dedicated to initial vocational training in the machine industry trades. Apprentices enrolling in an automation specialist programme spend the six first months of their training in this centre gaining basic technical knowledge and skills in areas like mechanics, electronics and electric wiring. These skills are seen as a necessary introduction to the more complex sorts of construction and maintenance tasks apprentices will later encounter in the workplace.

The excerpt transcribed below relates to a recurrent interactional format labelled locally by participants as 'theory'. In such sequences of instruction, the trainer stands in a central position facing the group of apprentices. The role of the trainer is then to display and explain several skills and techniques related to the use of machines or to adequate or inadequate ways of carrying out specific tasks. The trainer assumes a position of expert in line with his social role. Those moments of 'virtual classroom' occur regularly during a training day. Observations show that during such collective sequences of instruction or 'theory', apprentices may be more or less active depending on their position in the interaction. Whether the trainer addresses apprentices either as a 'class' or individually, participants share the same interactional environment, engage in a form of focused gathering and are mutually ratified as legitimate participants. It is the conditions under which the trainer and the group of apprentices negotiate participation in these particular configurations that we examine closely in the data analysis.

We focus on the tutorial relationship between the trainer (MON) and one of the apprentices, Tony (TON). Tony is a 16 year old 1st year apprentice who can be regarded as high performing. He is a native French speaker, has a long-standing interest in electronics and was able to access the automation apprenticeship programme immediately after completion of compulsory schooling. Observations show that Tony regularly responds actively to the trainer's solicitations. He asks questions, provides answers and spontaneously proposes numerous comments during collective instruction sequences. The position of 'centrality' assumed by Tony can be regarded as a privileged frame for understanding how socially recognised forms of participation are jointly constructed in interaction, and how these joint constructions illuminate the interdependent relationships linking Tony, the trainer and the rest of the group.

These mechanisms can be observed in the excerpt below, dedicated to an explanation of the process of punching. In the context in which this sequence was observed, apprentices are manufacturing a sanding block, a workpiece with thin metal sheets into which holes have to be punched. In order to punch the holes, apprentices need to use a press, which they have not used before. In the excerpt, the trainer (MON) initiates a sequence of so-called 'theory' and provides instructions regarding operation of the press, beginning by displaying a rubber part that is needed to reject the piece from the punch. He addresses the whole group of apprentices, including Tony (TON), Frank (FRA) and Bertrand (BER).

(1) 'very clever indeed' (Film No 208, 4'52 - 5'50)²

1. MON: so here we have rubber parts/ why do we use these/ it is because once we have punched the piece the punch remains stuck in the hole ((establishes eye contact with TON)) [#1]
2. FRA: so this part is elastic/
3. FRA: this will help XX
4. MON: and/
5. TON: this rejects the piece\
6. MON: this will reject the piece/.
7. this fits in here I will show you\ ((MON leans over the press and installs the rubber part under the punch))
8. but we will not use it now and I will tell you why in a moment\
9. FRA: we won't use this/
10. MON: no we won't\
11. TON: yeah because because
12. BER: it's because we punch a very thin piece\
13. TON: no that's not the reason\ it's because we punch on the sides of the piece and not in the middle\ ((points to the metal piece located on the press)) [#2]

14. MON: very clever indeed\.. yes exactly\
15. FRA: why/
16. MON: simply because
17. TON: because because we won't make holes in the centre of the piece but only here on the sides you see\ ((points to the locations where holes will be made in the piece)) [#3]
18. MON: so what happens if you punch only half of the piece/ the rubber part will exert pressure and-
19. TON: it will stick/
20. MON: it will straighten the piece\

This sequence highlights practices through which TON actively participates in the ongoing interaction and seems to position himself as an apprentice of a certain kind. His positioning devices are based on a wide range of multimodal resources.

First, it is worth noting that TON is not maintaining himself in a ratified recipient position but is constantly self-selecting as a speaker. His turns are not explicitly elicited by the trainer but are spontaneously provided to the audience. TON repeatedly anticipates MON's discourse, as in (5) for instance, where his utterance ('this rejects the piece') fits into MON's explanation ('so this is elastic and', 2-4), or in 19, where his comment ('it will stick') interrupts and continues the trainer's talk ('the rubber part will exert pressure and-', 18). These anticipations do not only consist of fine-grained alignments to the trainer's instructions but also contradict some of MON's declared intentions. For instance, when MON announces to the group that he will provide a specific explanation about the use of the rubber part later on ('we will not use it and I will tell you why in a moment', 8), TON does not wait for this explanation but delivers it to the entire group (13).

On numerous occasions, TON also 'stands out' compared to other apprentices by taking up a trainer position. For instance, when FRA enquires about the use of the rubber part in the present context ('we won't use this?', 9), TON elaborates MON's answer ('no we won't', 10) and attempts to provide an explanation ('yeah because because', 11), overlapped by BER's own hypothesis ('it's because we punch a very thin piece', 12). But BER's attempt to explain why the rubber part should not be used here is immediately, spontaneously and explicitly rejected by TON ('no that's not the reason', 13) who proposes an alternative answer ('it's because we punch on the sides of the piece and not in the middle', 13). This answer does not seem to be understood by all members of the group, as attested by FRA's new request for clarification ('why', 14). When MON initiates an answer to this question ('simply because', 16), he is again overlapped by TON who offers an explanation to the group in general and FRA in particular ('because we won't make holes in the centre of the piece but only here on the sides you see?', 17).

Interestingly, TON's recurrent demarcation practices do not rely on talk exclusively. They also involve a specific relation to space and to the material arrangement shaping the physical setting. When TON 'stands out' and provides answers to questions

implicitly or explicitly raised by the trainer or other apprentices, he approaches the press and performs indexical gestures pointing to specific locations of the piece. In doing so, he enters the physical space the access to which is normally limited to the trainer, and from which the other apprentices gathered as a group remain distant (see Figure 1).

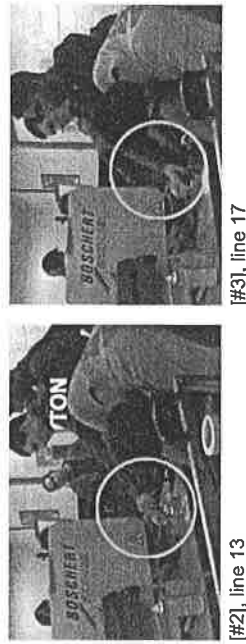


Figure 1. TON points to the locations where holes will be punched in the piece.

Such explicit ways of taking up a trainer role could potentially be face threatening for MON, especially because these interactional practices are being performed in front of an audience. But interestingly, MON seems to ratify TON's positioning devices and even affords numerous opportunities for the apprentice to establish visibility and centrality within the group. For instance, very early on in the 'theory' sequence, MON establishes eye contact with TON and visually selects him as an addressed recipient (see Figure 2).

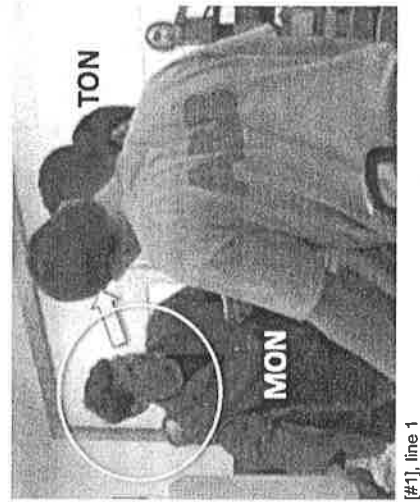


Figure 2. MON establishes eye contact with TON.

Later on, the trainer also responds differently to apprentices' spontaneous interventions depending on the speaker. When, for instance, FRA anticipates and hypothesises a possible function to the rubber part ('this will help XX', 3), MON interrupts him and overlaps his talk by an expansion ('and', 4). But when TON interrupts this expansion to share his views ('this rejects the piece', 5), the answer is both rephrased almost literally and ratified by MON ('this will reject the piece', 6). Systematically, the trainer tends to validate TON's answers, sometimes simply by rephrasing them slightly ('it will straighten the piece', 20), and often by giving explicit forms of recognition to the apprentice. This is for instance particularly visible when MON highlights TON's explanation about the rubber part by producing an overt face-flattering act ('very clever indeed, yes exactly', 14).

In sum, this first excerpt illustrates the complex and constant interactional work accomplished by TON to make a relevant impression of himself. It is by enacting specific interactional participatory practices such as standing out, taking the floor, interrupting, anticipating instructional talk or providing correct answers that TON gains a form of visibility and centrality in the 'theory' gathering, and endorses the legitimate and valued position of being a smart apprentice. These forms of visibility and centrality do not rely solely on the ways the apprentice engages in interaction. They are also afforded by the trainer. Consequently, these forms of social recognition can be seen as locally and collectively accomplished.

Becoming an Undesired Focus of Attention in an Individual Exercise

The collective negotiation of interactional participatory practices may produce outcomes other than the centrality and social recognition discussed above. In some contexts, apprentices may access visibility, but against their will and in interactional configurations that can endanger their legitimacy within communities of practice.

To illustrate such an alternative participatory configuration in interaction, we turn to a second excerpt, this time focusing on Rodrigo, an apprentice in the same group as Tony. Rodrigo emigrated from the former Portuguese colony of Cape Verde and is not a native French speaker. Because of poor achievements in both numeracy and literacy, he experienced a non-linear transition from compulsory school, attending a one-year pre-apprenticeship programme before entering the VET system. After having failed the admission test for an electrician apprenticeship programme, he decided to enrol as an automation specialist, passed the tests and signed an apprenticeship contract with a company after several unsuccessful attempts.

The sequence of interaction transcribed below occurs approximately three months after Excerpt 1. It relates to training specifically dedicated to the learning of electric wiring. The activity setting underlying this sequence is different from 'theory' gathering. It can be described as an individual practical exercise consisting of producing a basic electric command system, called 'motor controller', according to explicit technical specifications. This kind of exercise anticipates central and typical tasks automation specialists are expected to carry out in the workplace. It unfolds

in the following steps. First, the trainer delivers general instructions to the group of apprentices. He utters a list of technical specifications apprentices will have to implement in the motor controller device they are to produce. These instructions can be summarised as follows: 'I want the motor to set in motion and an indicator to light up when I press the button Start. I want the motor to stop and the indicator to go out when I press the button Stop. I want the motor to stop automatically and an indicator to light up when the motor overheats.' (Field notes, 26th January 2006). The task for apprentices is to write down the instructions in their notebooks, to draw an electric diagram following these instructions, and then to assemble the electric components according to the diagram. Apprentices work individually at separate workbenches in the workshop and are expected to progress semi-autonomously through the various steps of the exercise. The trainer regularly moves from one apprentice to the other and makes sure that apprentices are not making mistakes in producing their motor controlling system.

The excerpt transcribed below relates to the first step of this exercise, namely the task of giving written form to the trainer's instructions. Rodrigo is facing difficulties in understanding these instructions and makes no progress in writing them down in his notebook. The trainer (MON) observes this, approaches Rodrigo (ROD) and initiates a verbal exchange with him, while other apprentices like Tony (TON), Frank (FRA), Samuel (SAM) and Kevin (KEV) keep working individually nearby.

(2) 'do you understand what you have to do?' (Film No 216, 02'16-05'24)

1. ROD: ((is sitting at his workbench, a pen in his hand and a notebook in front of him)) [#1] I try to draw the diagram but XX
2. MON: ((is leaning upon a cupboard on the left of ROD's bench)) [#2] no but the FUNCTION of the device what kind of device is it/ THIS is what I want you to write down\
3. ROD: it's a device when I press the button stop\ XX
4. MON: I gave you the title 'Motor controller'\ now er . Kevin just explained to you\ I want you to write down what he explained in simple and clear words \ . a motor controller/ when I press the button bladiblabla . er the motor er: starts/ . when I press the button X what happens to the motor bladiblabla you write it in two sentences/ . if there is a problem with the motor what happens etcetera\ finished\ ... two or three sentences\ the instructions relating to the device\ .. you know what you have to do now\ . do you understand what you have to do/ . what do you have to do\ .
5. TON: ((is working on his workbench located in front of ROD)) he doesn't know/

6. ROD: yes but the diagram er of the er
7. MON: no but I'm asking you-
8. ROD: of the new components I will have to use I don't know XX
9. MON: yes but this isn't this isn't what I'm asking you I'm asking you if you have understood what you have to do now
10. ROD: yes XX
11. MON: so what do you have to do\
12. ROD: I have to write that: . I'm going to start at the beginning\ I mean er
13. MON: ((laughs)) yes no but . I'm asking you the motor's function ((laughs))
14. ((other apprentices are laughing as well))
15. ROD: ((laughs and looks at SAM who is working behind him)) [#3] X when I press the button/ X the button START/
16. SAM: XX you're not going to begin at the end/
17. ROD: I press the button START the motor sets in motion/ then I press the button ON . it stops\
18. TON: it's like in video games\
19. MON: you press what/
20. SAM: you should say s1 s2\ you have the relay you have the relay X
21. ROD: yeah when I press a button
22. MON: yeah/
23. ROD: XX
24. MON: yeah OK/
25. ROD: it starts:
26. FRA: ((is sitting on the right of ROD's bench)) you know that's like a PlayStation\ start you press select it stops\
27. ROD: ((looks at FRA and smiles)) [#4]
28. MON: yeah/
29. ROD: ((turns his head toward MON)) that that sets the motor in motion/ then when I press the button ON it: stops\ [...]
57. MON: you have forgotten everything haven't you/ ((4 sec.)) wasn't it you who told me that you had to eat a lot not to forget/
58. ROD: eat a lot not to forget/ ((laughs))
59. MON: you haven't eaten a lot today have you/
60. ROD: ((laughs))

At the beginning of Excerpt 2, ROD displays difficulties in understanding the instructions and in identifying the correct sequence of tasks required by the procedure. He mentions the drawing of the electric diagram ('I try to draw the diagram but',

1) in a context in which he has not finished writing down the various functions and specifications related to the device to be produced.

To address these difficulties, the trainer shapes an interactional space in which he and ROD establish visual contact and select each other as ratified participants (see Figure 3).



Figure 3. MON and ROD establish eye contact.

Within this interactional space, MON affords various resources for assisting ROD in the understanding of the required procedure. He prompts ROD to clarify his misunderstandings ('no but the function of the device, what kind of device is it? This is what I want you to write down', 2) and reframes ROD's activity by reminding him of previous instructions ('I want you to write down what he explained in simple and clear words, etc.', 4). Interestingly, MON also enacts specific discursive formats for delivering his instructions. On numerous occasions, he asks ROD questions and invites him to give a verbal account of the task ('what kind of device is it?', 2; 'what do you have to do?', 4). He also initiates exchanges in which he seeks to establish ROD's understanding of the task ('do you understand what you have to do?', 4; 'I'm asking you if you have understood what you have to do now', 9). These strategies can be regarded as forms of scaffolding (Wood, Bruner & Ross, 1976). They are typical formats of teacher/trainer discourse and are meant to guide the apprentice towards a correct rephrasing of the task to be carried out.

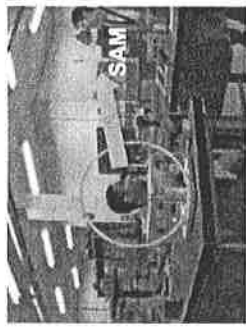
Obviously, ROD engages neither easily nor efficiently in these scaffolding sequences of interaction. For instance, he does not take his turns immediately after highly visible transition points, as attested by the growing number of pauses in line 4, obliging MON to keep on talking and rephrasing his requests for confirmation ('two or three sentences\ the instructions relating to the device\.. you know what you have to do now\ . do you understand what you have to do/\ . what do you have to do\ .'). ROD also fails to fulfil expectations regarding his level of understanding of the task. He does not succeed in producing valid verbal accounts of the work procedure and attempts a succession of answers that are regarded by other participants as

inadequate. First, he responds to MON's repeated instructions by referring again to the drawing of the electric diagram and not the task at hand ('yes but the diagram of the new components I will have to use I don't know', 6-8). Second, he provides self-evident responses to MON's questions ('I have to write that I'm going to start at the beginning', 12). And finally, he expresses a form of misunderstanding by referring to the button STOP as ON ('I press the button START the motor sets in motion, then I press the button ON, it stops', 17).

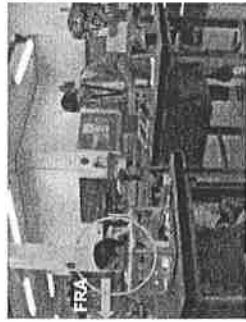
These postponed and incorrect answers do not only lead to negative evaluations by MON ('no but I'm asking you', 7; 'this isn't what I'm asking you I'm asking you if you have understood what you have to do now', 1. 9) and requests for clarifications ('you press what?', 19). They also gradually introduce changes in the global participation framework underlying the whole interaction; the ways other apprentices engage in this particular sequence of interaction progressively change as the interaction unfolds. Whereas these apprentices are outside the interactional space between ROD and MON at the beginning of the excerpt, they gradually become more and more visible and active. In Goffmanian terms, they move from *overhearer* or *bystander* positions to the position of *ratified recipients* and *speakers*. TON is the first apprentice to select himself as a speaker and to comment on ROD's silence ('he doesn't know', 5). He is quickly followed by SAM, who underlines the self-evident nature of ROD's answer to MON's question ('you're not going to begin at the end!', 16). TON then introduces a similarity between the wiring exercise and a video game ('it's like in video games', 18), an analogy that is soon recycled and elaborated by FRA ('you know that's like PlayStation, start, you press select it stops', 26).

These self-initiated comments share various notable properties. First, they do not primarily consist of additional resources that would help ROD carry out his task. Except for SAM's comment in line 20 ('you should say s1 s2 you have the relay'), they provide ROD with little conceptual information but rather are teasing practices. From that perspective, they exert a form of symbolic pressure on ROD and can be regarded as endangering ROD's face. Second, these self-initiated comments are not so much addressed to ROD as to the other participants present. They emanate from a plurality of apprentices (TON, SAM, FRA), echo each other and progressively establish a community of practice from which ROD is excluded.

These changes in the participation framework also gradually affect ROD's own interactional participatory practices in the context. As the interaction unfolds, ROD becomes the undesired centre of a public arena, in which he progressively loses his rights to speak. As other apprentices enter the floor, ROD's turns are almost systematically overlapped (15, 21, 23). They are also intertwined with responses addressed not exclusively to the trainer, but to other apprentices as well. For instance, in line 15, ROD turns towards SAM when elaborating his answer ('when I press the button X the button START'). In line 27, he responds to FRA's comment about the PlayStation by addressing a smile in his direction.



[#3], line 15



[#4], line 27

Figure 4. ROD establishes visual contact with SAM and FRA.

As evidenced by ROD's constantly changing body orientations (see Figure 4), this more complex participation framework raises new challenges for ROD's participation. It introduces a form of multiactivity in which ROD is expected at the same time to follow the teacher's scaffolding strategy and to respond to the teasing initiated by his mates. From what can be observed in the data, ROD's repertoire for responding to these challenges appears limited. It consists mainly of laughing as an attempt to preserve a positive image of himself within the public arena.

Interestingly, the trainer does not intervene to preserve ROD's rights to speak nor to prevent other apprentices from commenting sarcastically on the ongoing interaction. He also interrupts ROD's attempts to provide answers (2, 7, 9, 13, 22) and initiates various forms of mocking remarks. In line 13 for instance, he is the first participant to laugh in response to ROD's inadequate answer. And at the end of Excerpt 2, he also adds an ironic comment about ROD's difficulties with retaining information ('you have forgotten everything haven't you? Wasn't it you who told me that you had to eat a lot not to forget?', 57; 'you haven't eaten a lot today have you?'). In doing this, the trainer is aligning to the teasing frame initiated by TON and the rest of the group. He brings a form of legitimacy to the practice of placing ROD at the centre of attention, but on the margins of the group. In this context, ROD struggles alone to preserve a valued and legitimate position in interaction. His efforts are unsuccessful though, considering his progressive loss of control not only over the technical tasks he is expected to carry out, but also over the relational work mediating these tasks.

Becoming a Peripheral Learning Worker

The limited repertoire of resources apprentices use for endorsing legitimate and valued positions in interaction can be observed not only in formal training contexts but also in the workplace. In Rodrigo's case, it is particularly striking to observe how similar sorts of interactional patterns emerge at later stages of his apprenticeship and in other contexts. In this section, we discuss a sequence of work observed three months later in the company that hired Rodrigo as an apprentice.

This company is a small business that specialises in the construction of electronic boards for the building industry. In the company, Rodrigo is under the supervision of Fernando, his official trainer. As is usually the case, Fernando is not dedicated exclusively to the instruction and supervision of apprentices. He is also the manager of an important workshop within the company and is in charge of productive tasks as well as of other employees. Other colleagues are also working in the same environment as Rodrigo, but they have no official training responsibility for apprentices. The training model followed by this company is strongly practice-based and considers that apprentices should learn by being assigned productive tasks from the very beginning of their apprenticeship programme. This means that Rodrigo has not been given any period of observation during which he could become familiar with the context of production.

The excerpt transcribed below refers to a sequence of work in which Rodrigo is producing coloured plastic tags engraved with specific numbers. The tags are attached to electric boards and refer to the various electric devices on the boards. To engrave the tags, Rodrigo has to run specific software on a computer located in a room next to the workshop. It is the second time Rodrigo has used this software. But despite the notes he took in his notebook the first time he completed the task together with Fernando, he encounters difficulties and is unable to complete the procedure on his own. He repeatedly needs to interrupt his colleagues for assistance. When Excerpt 3 starts, it is the third time he has gone back to the workshop to ask for help. Fernando (FER) is engaged in his own work and asks Julian (JUL), one of his colleagues, to assist the apprentice.

(3) 'I have a problem, it doesn't work' (Film No 227, 11'20 - 12'30)

1. ROD: ((ROD leaves the computer room [#1] and goes to the workshop)) [#2]
2. ROD: I have a problem/ . it doesn't work\
3. FER: of course it doesn't work\ . it can only function\
4. FER > JUL: you go JUL I've had enough
5. JUL > ROD: what's the problem now\
6. ROD: are those the T-shirts\
7. JUL: yes these are the T-shirts\ ((comes with ROD in the computer room)) [#3]
8. JUL: and what's your problem then\
9. ROD: it doesn't work\
10. JUL: what's the problem/ . what doesn't work what's-
11. ROD: I don't know it says this all the time\
12. ((ROD and JUL stand in front of the screen))
13. JUL: but- ((starts typing on the keyboard)) [#4]
14. it's like last time\ . you have too many layers\ . you have to delete them\ . you see\
15. ROD: oh I always forget that
16. JUL: yes oh yes I know/ er because this is the second time I've had to come here\

17. and why didn't you do it all at the same time/
 18. ROD: because there are some EFI breakers here/ and I don't
 know how to deal with that/
 19. JUL: right but 8 - 9 - 10 what's that/
 20. ROD: 8 - 9 - 10 come before the EFI breakers\
 21. JUL: right I'll explain this to you another time\ ((leaves
 the computer room))

In terms of how ROD is behaving in the workplace context, recurrent interactional patterns appear, that are similar to those observed in the training centre. These interactional patterns relate both to the specific ways the apprentice engages in specific participatory practices and to the kinds of resources afforded by other participants present in the workplace environment.

With regard to the issue of individual engagement, it is noteworthy that here again ROD encounters numerous difficulties in endorsing the participatory positions he is expected to hold in the context. As observed in the training centre, he fails to proceed with the requested task and is unable to progress without assistance. This results in a shift in space and in a change in the global participation framework underlying the workplace setting. In line 1, ROD leaves the computer room, steps into the workshop and addresses his trainer. In other terms, he reframes an individual action into a joint action, or interaction (see Figure 5).

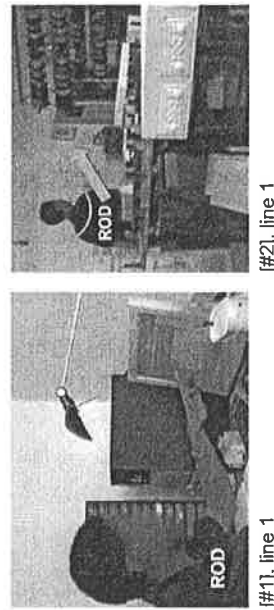


Figure 5. ROD leaves the computer room and seeks help in the workshop.

When looking at the linguistic forms used to address his trainer and ask for assistance, numerous attenuation devices can be identified. ROD's request is linguistically presented as an assertion ('I have a problem') and remains highly implicit. Moreover, the encountered problem is described as being caused by the computer ('it doesn't work') and not by its user. ROD is thus taking numerous precautions in order to perform what seems to be anticipated as a highly face-threatening speech act (Goffman 1959; Brown & Levinson 1987).

Another interesting feature of ROD's engagement in interaction is his difficulties with performing adequate forms of answers and providing valid linguistic accounts of work processes. For instance, there seem to be clear expectations from JUL that the apprentice should be able to describe accurately the problem he is encountering. In three successive turns, JUL enquires about the nature of the problem ('What's the problem now?', 5; 'And what's your problem then?', 8; 'What's the problem? What doesn't work?', 10). But obviously, ROD is not in a position to satisfy these insistent requests. First, he reorients the verbal exchange to another topic and enquires about T-shirts that have just been delivered and that will soon be given to employees as work clothes ('are those the T-shirts?', 16). He then reports that 'there is a problem' and that 'it doesn't work', but cannot explain precisely *what* does not work. It is only when reaching the computer room and standing in front of the screen that ROD is finally able to use the material resources afforded by the environment and to point to the problem: 'It says *this* all the time' (11). Similarly, later in the excerpt, when JUL wonders why ROD has not listed the complete range of numbers on the plastic tags ('And why didn't you do it all at the same time?', 17), ROD explains that he has not included all the numbers because he does not know how to deal with specific sorts of circuit breakers ('Because there are some EFI breakers here and I don't know how to deal with that', 18). But this justification seems to be regarded as insufficient, considering JUL's renewed enquiry ('Right but 8 - 9 - 10 what's that?', 19). So here again, the apprentice faces difficulties producing for colleagues the required linguistic account of the practices in which he is engaging.

Moreover, as observed in the training centre, ROD's engagement seems to be hindered by his difficulties with retaining information. At various places in this excerpt, his repeated requests for assistance are noted by other participants and are hence socially marked in the context. For instance, when FER passes the request on to JUL, JUL implies that this is not the first time ROD has had a problem ('what's the problem *now*?'). Later, when he joins ROD in the computer room, JUL observes that the problem is similar to one he solved a few minutes before: 'it's like last time. You have too many layers. You have to delete them, you see?' (14). ROD confesses that he forgets this procedure (15) and JUL makes clear that he is well aware of that 'because this is the second time I've had to come here' (16).

The specific and rather problematic ways in which ROD engages in interaction also relate to the kinds of resources afforded by experienced workers when interacting with the apprentice. As previously observed in the training centre, ROD's level of participation in ongoing activities decreases as other participants become more active and progressively take control of his tasks. For instance, when JUL joins ROD in the computer room, the former very quickly sets the required parameters in the editing software before leaving ROD alone. In doing so, JUL is not really assisting ROD in his task, but rather taking control of the procedure and acting in substitute for the apprentice (see Figure 6).

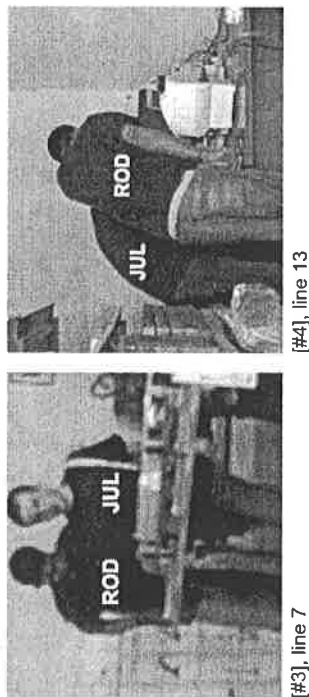


Figure 6. JUL goes with ROD into the computer room and takes control of the engraving procedure.

JUL's forms of intervention also afford little conceptual content in terms of instruction and learning. He postpones additional explanation about the engraving procedure to an unclear future: 'Right I'll explain this to you another time' (21). In such conditions, ROD participates in the procedure as an observer and not as an active 'doer' of the work. His misunderstanding of the procedure is neither identified nor addressed by experienced workers.

Another interesting feature shared by the forms of guidance afforded to the apprentice in this context is that they convey important social and relational implications for the apprentice and the ways he is being regarded by his colleagues. FER and JUL are not only exchanging information with ROD and assisting him in the performance of work procedures. They are also displaying attitudes towards the apprentice and the specific ways he engages in the workplace. For instance, FER responds sarcastically to ROD's initial request for help (3). He replies with anger to ROD, reminding him that he is using inappropriate vocabulary for describing the problem: The computer cannot 'work'; it can only 'function'.³ In a second turn, he initiates another exchange addressed to JUL and asks him to respond to the apprentice ('you go JUL I've had enough!', 4). These negative and face-threatening responses are not only provided by the trainer. They are also evident in JUL's attitude towards ROD, as attested by his recurrent questioning focused on the nature of the encountered problem (5, 8, 10) and his blaming response when ROD confesses his difficulties in retaining information ('yes oh yes I know, it's the second time I've had to come here', 16). As observed in the training centre, such speech acts affect the relational climate in which ROD is evolving and contribute to establishing a rather negative image of the apprentice in the context. When repeated over time, these devices may lead to a progressive marginalisation of the apprentice and to the non-recognition of his status as a legitimate learning worker within this specific community of practice. In ROD's case, these marginalisation processes quickly took highly visible institutional forms. After the end of his second year apprenticeship,

in June 2007, the company decided to end ROD's contract when he failed his intermediary exams. His trainer considered that ROD was not motivated enough and required too much assistance to be a helpful resource for the company.

ADDRESSING THE CHALLENGES OF DISCOURSE ANALYSIS AS RESEARCH METHOD AND INTERVENTION TOOL

Becoming a full member of a community of practice is not solely a personal or individual affair. Neither is it exclusively a matter of willingness. The analysis presented in this chapter reveals that apprentices need to actively work on the ways they access and accomplish participatory practices in training centres and workplaces. Within the complexity of interactional exchanges, apprentices struggle to gain legitimacy and social recognition from other participants present in the context. By adopting a Goffmanian perspective on social recognition, we shed light on real practices in which valued images are locally displayed and collectively managed. Analysing these practices highlights the complex and often implicit demands underlying institutional talk in the context of vocational training. It also shows that forms of inequities exist with regard to apprentices' abilities to identify and respond adequately to these demands. Our contrasting case studies establish striking differences in this respect. Tony's case highlights a concern for positioning through insistent practices of visibility and centrality. By contrast, Rodrigo's case illustrates how difficult it can be for some apprentices to align to the social norms underlying communities of practice and to keep control over the ways they position themselves within (or outside) these communities.

These differences are not unrelated to individual capacities and to broader biographical factors. For instance, the fact that Tony is a high-performing apprentice reinforces his visibility and the form of power he is able to exert over the rest of the group. Conversely, Rodrigo's learning difficulties likely play an important role in his almost systematic failure to enact valued and legitimate positions in interaction. Additionally, these differences between Tony and Rodrigo are also related to their specific cultural backgrounds. As a native French speaker, Tony accesses interactional routines in which he knows how to take his turn, how to interrupt others, how to initiate changes in the participation framework, how to soften the face-threatening nature of a request, or how to respond to teasing, etc. This wide range of routines may be less evident and less immediately accessible to Rodrigo, whose cultural and linguistic background is different from that of most other apprentices. However, cultural boundaries do not exist *per se* in vocational training interactions, but only when they are locally and collectively established as relevant and visible categories. Interestingly, in the context of the training centre, Rodrigo's Cape Verdian origin does not remain transparent but on the contrary becomes highly visible. For instance, in the following excerpt, participants refer to Rodrigo as 'Cape Verde'. Apprentices are discussing with the trainer the differences between *automation specialists*, namely high-skilled workers who have a diploma and are in charge of engineering tasks, and

electric assemblers, low-skilled workers who have no diploma and assemble electric components without understanding what they are doing. In this particular context where two categories of professions are distinguished, Rodrigo is soon identified as an *assembler* in opposition to other apprentices who see themselves as *automation specialists*.

(4) 'Cape Verde, he's just assembling' (Film No 217, 12'33-16'21)

1. FRA: Cape Verde he's just assembling X\
2. TON: but he's a badger [useless] X\
3. MON: ((is leaning upon TON's desk)) yeah but he is assembling according to what/
4. FRA: according to our diagrams\

What is particularly striking in this example is not so much the fact that Rodrigo's Cape Verdian origin is stigmatised in the form of a nickname (1) since we know from earlier research conducted in various professional contexts that such teasing practices are constitutive of workplace cultures (Holmes & Stubbe 2003). What is remarkable here is the connection established by the participants between cultural, personal and professional identities. From the participants' perspectives, Rodrigo is not only 'Cape Verdian'; he is also a 'useless badger' (2) and an 'assembler' (1) who will probably never achieve any form of qualification. Most importantly, this categorisation is, once again, not only driven by the apprentices but also ratified and reinforced by the trainer ('yeah but he is assembling according to what?', 3) who elaborates on deprecatative comments made by Frank (FRA) and Tony (TON).

Beyond the scope of these particular case studies and their theoretical implications for understanding the complex relations linking interaction, learning, social relations and cultural diversity, the type of research illustrated in this chapter maps important methodological challenges for the development of discourse analysis in the future. First, the analytical approach implemented in our research stresses the relevance of a *multimodal perspective* that does not see talk as the sole or the main medium through which social interaction unfolds. As illustrated by our empirical analysis, the apprentices' struggles to legitimacy and social recognition do not rely on language exclusively but also on a wide range of other semiotic resources. It is by positioning themselves in material environments, by establishing visual contact with specific partners, by pointing to specific locations and artefacts, etc. that participants enact interactional participatory practices and negotiate the social value attached to these practices. Secondly, the methodology underlying our approach stresses the potentialities associated with a *contrastive perspective*. Highlighting contrasts from one context to another and from one interactional configuration to another may illuminate, as in Tony's and Rodrigo's cases, mechanisms of social differentiation and inequity. It may also contribute to 'scaling up' local findings resulting from microscopic qualitative analysis and linking them with macroscopic realities observable at broader social levels (Erickson 2004). Finally, the type of research

employed in this chapter also contributes, by integrating a dynamic and *longitudinal perspective*, to the development of methods that aim at 'opening up the scope of discourse analysis' (Scollon & Scollon 2004). Through a detailed multimodal analysis of sequences of interaction collected in various contexts and at different stages of training programmes, we have tried, in an exploratory way, to reveal the interactional micro-mechanisms through which identities tend to sediment and become more and more fixed in time. We consider this longitudinal perspective of primary importance in understanding how apprentices' journeys from the periphery of a learning community to its centre are reflected in interactional processes. We also take this longitudinal perspective as a very promising unit of analysis for investigating a 'situated trajectory of learning' and understanding both successful and problematic ways of experiencing such trajectories (de Saint-Georges 2008b; de Saint-Georges & Fillietaz 2008; de Saint-Georges & Duc 2009).

To conclude, we wish to re-establish, together with other discourse analysts (Sarangi & Roberts 1999; Wodak & Meyer 2001), that discourse analysis does not come down to an abstract analytic methodology but also serves to address broader social concerns. From our perspective, important practical implications derive from the methodology enacted in our study. One first area in which the type of research presented here may have significant outcomes is the understanding of problematic transitions from school to work. In the context of Switzerland, increasing attention has been paid in recent years to the high level of non-completion, dropout and change in apprenticeship pathways. Depending on occupation and geographical area, between 20% and 40% of apprentices who enter the dual VET system do not complete their apprenticeship within the stated terms of their contracts (Stalder & Nägele 2010). Of these, 9% change occupation, 11% have to repeat a year, 7% change training company, and 7% drop out from the apprenticeship system without an immediate alternative pathway. Recent studies have investigated the causes leading to young people dropping out of or making changes in apprenticeship programmes (Lamamra & Masdonati 2009; Jordan, Lamamra & Masdonati 2009). These studies depict a nuanced portrait of the dual VET system and show that transitions from school to work are to some extent far from smooth and unproblematic. They conclude that poor working conditions, low support by trainers and workplace relations emerge as the main causes leading to dropout. Elaborating on these findings, the strength of a discourse analytic methodology applied to vocational education practices lies in its capacity not so much to reflect on the 'causes', 'reasons' and 'factors' that may lead to incomplete training pathways or delayed transitions to employment, but to understand the *processes* by which these causes and factors are being enacted in practice, how attrition is constructed in action, and how apprentices, trainers and workers experience relational and practical issues when engaging in work.

Beyond data description and analytical understanding, what then can discourse analysts propose in order to bring change to the realities they investigate? One particularly promising avenue currently being explored by our team at the University of Geneva is to use the empirical material collected during our research in training

programmes for vocational trainers (Fillietaz forthcoming). As shown by the case studies presented in this chapter, vocational trainers play an active role in the transition processes experienced by apprentices. In consonance with Billett's work (Billett 2001a), research results presented here show an urgent need to increase the level of pedagogical qualification and awareness of trainers to enhance the overall quality of the guidance provided in training centres and workplaces. Applying a discursive lens to empirical data certainly does not solve the complex issue of attrition in apprenticeship programmes. However, it can make visible the sorts of difficulties faced by apprentices when joining workplaces and it can also help trainers and experienced workers to become more reflexive about their role in assisting these apprentices to accomplish consistent transitions into working lives.

NOTES

- This research was sponsored by the Swiss National Science Foundation (SNF), references PP001-106603 and PP00P1-124650.
- Transcripts are translations into English of the original French data. Transcription conventions are as follows:

Conventions transcriptions	
CAP	accented segments
/	raising intonation
\	falling intonation
XX	uninterpretable segments
(hesitation)	uncertain sequence of transcription
:	lengthened syllable
*	pause lasting less than one second
**	pause lasting between one and two seconds
>	addressor-addressee relation (FER > MAR)
??	unidentifiable speaker
<u>Underlined</u>	overlapping talk
((comments))	comments regarding non verbal behaviour
[# 1]	reference to the numbered illustration in the transcript

- In fact, FER is playing with words here, the French verb 'marcher' meaning both 'walking' and 'functioning'. A literal translation of FER's response would be something like 'of course the computer cannot walk, it can only function.'

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Multilingualism and Multimodality

Current Challenges for Educational Studies

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In the social sciences and humanities, researchers often qualify the period in which we are living as 'late-modern', 'post-modern' or 'superdiverse'. These terms seek to capture changing conditions and priorities brought about by a new social order. This social order is characterized, among other traits, by an increased visibility of social, cultural and linguistic diversity, arising out of unprecedented migration and mobility patterns. It is also associated with the development of information and communication technologies, which in the digital era transform communication patterns, identities, relationships and possibilities for action.

For education, these late-modern conditions create numerous interesting challenges, given that they are of course reflected in the classroom and other sites of learning. Conditions of 'superdiversity' mean that, in educational institutions, varied practices, linguistic repertoires, and symbolic resources come into contact, posing questions about how institutions and actors choose to deal with this diversity. Likewise, digital technologies with their possibilities for assembling and using multimodal texts in new ways transform the learning experience, redefining what counts as teaching, learning, knowledge, or assessment.

By providing careful analyses of policies and interactions in superdiverse, technologically complex, educational contexts, the authors of this volume contribute something important: they give a shape – a semiotic form – to some of the issues raised by transnational migration, sociocultural diversity, and digital complexity. They construct a framework for reflecting about the new social order and its impact on education. They also reveal the kinds of new questions and new terrains that can and must be explored by linguistic research if it wants to stay relevant for education in these times of change.

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