DISCURSIVE POWER AND WORKPLACE LEARNING – MANIFESTATIONS IN A SURGICAL ENVIRONMENT

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Abstract

In this paper we describe various ways in which power is exercised between personnel in a hospital operating theatre. An ethnographic approach was utilised in the fieldwork. Our data were collected mainly through observations and interviews with surgical residents, physicians and nurses. In the paper we describe the delicate ways in which power is exercised and resisted in everyday practices. In addition, the relations between power and workplace learning are discussed.

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1 Introduction

The aim of this paper is to examine the relationships between personnel and workplace learning in the context of the exercise of power in a moderately large hospital in Finland. In particular, we investigate the team interactions, practices and learning in operating theatres (OTs), an environment seen as particularly important due to the risky nature of operations (e.g. Lingard et al. 2002; Nembhard & Edmondson 2006). The ultimate objective is to enhance the competence of OT employees and their opportunities for learning.

Even though power relations have been found to be an important factor in workplace learning and the construction of professional subjectivity (Leonard 2003; Halford & Leonard 2005), they seem to be the most neglected aspect of studies conducted in this area (Fenwick, 2008; Kira & Frieling 2007; Yoong & Cervero 2005). In particular, there seem to have been few analyses of power relations as they exist at the collective level within the workplace. Nevertheless, the majority of recent studies have argued that workplaces are highly contested areas of practice (Billett 2004). At the collective level, power relations may be understood as outcomes of collective learning processes within an organisation or a team – or conversely, collective workplace learning could be seen as shaping the power relations of a team or group of workers. Consequently, in this study we investigate team-level collaborative practices. In the present case, learning is understood as taking place through everyday social situations and interactions with colleagues, hence through constantly shared practices and situational negotiations (see Collin, Paloniemi, and Virtanen & Eteläpelto 2008). The present study was conducted in the context of health care and medicine, these being among the most intensively studied disciplines from the perspective of, for instance, inter-professional team work and team communication (Lingard et al. 2004).

The practices of the OT have traditionally been seen as rigorously coordinated, regulated by strict rules and clear status hierarchies. In this study, however, the OT practices are approached from the point of view of discursive power (Foucault 1980; Glegg 1998; Gordon 2006). By this we mean the power that is actualised by the dispositional and discursive practices that take place in the OT. We aim to break down traditional conceptions concerning the exercise of power by focusing on how power manifests itself in the discursive practices of the OT. More precisely, we aim to analyse different forms and manifestations of power; these would include manipulation, coercion, rewarding, rhetoric and argumentation, and also different forms of authority.

1.1 Why should power relations interest workplace learning researchers?

In studies on workplace learning, power relations have not so far been the prime focus of attention. However, every day practices in the workplace have proved to be contested and conflictual (see e.g. Billett 2004; Collin 2005; Contu and Willmott 2003). It has been argued that learning processes are integral to the exercise of power and control, rather than external or unrelated to the operation of power relations (Lave & Wenger 1991). Thus, Billett (2001a) has shown how access to activities, knowledge and guidance are not uniformly distributed among employees in the workplace. Instead, what individuals can learn is shaped by the kinds of activities which organisations allow or encourage individuals to engage in. This kind of action seems to support the notion that power is exercised in an "embedded" manner, i.e. that power relations and learning are closely related in practice and thus challenging to be analytically separated.

On a more general level, some consideration has been given to the ways in which learning takes place through individual and social processes (Billett 2006; Collin 2005; Collin, Paloniemi, Virtanen & Eteläpelto 2008). It is recognised that the social environment determines (by the

affordances it offers) what it is possible to learn at work. However, individual employees do not act as involuntary actors reacting to the requirements of the organisation, but actively constitute their practice and agency (Billett 2006; Billett & Sommerville 2004). So far, there has not been much research on the precise interrelationship between affordances and agency, and even less on how power relations are constituted in this interrelationship within the workplace (Fenwick 2008). Also within the field of organisation studies there has recently been attention to the close relations between the social domain (e.g. labour processes) and the individual domain (Collinson 2000; O'Doherty & Willmott 2001). It has been argued that social theorists have acknowledged the relevance of workplace learning – yet have failed to develop its integral relationship to their theories of power (Knights & Willmott 1989). Quite recently, however, the role of power negotiations in processes of identity construction has been studied more deeply (see Halford & Leonard 2005; Leonard 2003).

Criticism has also been directed at labour process analysis, on the grounds that it has dismissed the subjective dimension of work. It has been argued that insufficient attention has been paid to the role of the subject in conceptualisations of control and resistance (O'Doherty & Willmott 2001). The importance of this dimension has been demonstrated by Collinson (2000), who has analysed how resistance in its various forms constitutes a form of power exercised by employees in the workplace.

In the context of health care and medicine, questions of power have been approached by emphasising the constraints on communication and collaboration between different disciplines (e.g. physicians and nurses) (Lingard et al. 2002; 2004 Nembhard & Edmondson 2006). Many studies have shown that knowledge and information often goes unshared, especially across the hierarchy. An individualised work culture and status hierarchies in medicine make it particularly difficult to communicate across professional boundaries. Overall, one can claim that due to the traditions, structures and hierarchies that prevail in health care, it is very probable that in medical practice there will be delicate and embedded manifestations of power.

As a consequence of this, there seems to be a need to gain a deeper understanding of the ways in which power relations are manifested in workplaces. It is particularly important to focus on how power relations are legitimated in work practices, and on the kinds of relations that exist between exercising power and learning. Thus, in this study we aim to investigate the manifestations of power in the context of a hospital and operating theatre. We ask: 1) How does discursive power manifest itself in the practices of the operating theatre? 2) How can the various power structures be broken down/overcome? 3) How are the forms of discursive power and workplace learning intertwined with each other?

2 Theoretical background

The main task of the research is to analyse the various manifestations of power in operating theatre situations, and how they are connected with learning. We assume that power relations are more complex in actual situations than would be implied by official rules and hierarchies. One might quite reasonably assume that the power relations between different groups of personnel are learned during medical education, and that these relations are fairly strict in OT contexts (e.g. Lingard et al. 2004; Nembhard & Edmondson 2006). Nevertheless, we would wish to contest the traditional idea of self-evident power relations. We would take the view that power relations are continuously reproduced and redefined during social actions and between social actors. By the *reproduction* and *redefinition* of power relations we refer to the idea that power relations do not clearly exist as something given in advance; rather, we would see them as constructed during social negotiations of meanings. It should be noted, however, that we are *not* arguing that power relations are completely

contingent and situational, existing independently of any social or cultural context. We assume that there exist also certain symbolic ideas, involving moral or other collective standards, which are used to authorise the exercise of power (cf. Mills 1990 [1959]).

Discussions of power have revolved around two themes, namely power *over* and the power *to*. In the first case power is understood in negative terms, as implying that an actor is able to compel another actor to do what s/he would not do her/himself. The second type of power is considered to be facilitative, and thus positive, in the sense that it involves an action that accomplishes something, enabling certain goals to become defined and then reached. (Stewart 2001; Clegg, Courpasson & Phillips 2006)

Behind these two conceptions of power lie two traditions of social theory, which make it possible to understand the differences between the two approaches. The *power over* approach stems from conflict theories, and *power to* from functionalist theory. Both theories consider problems of cohesion and the bonds of social organisations and collectives, but their answers are different. In conflict theories (as developed by Marx, Weber and Dahrendorf), the bond which maintains organisational cohesion is imperative and coercive authority. Furthermore, in societies and social organisations there exist hierarchical orders of authority, and these define which positions are superordinate and which are subordinate. Competition regarding these positions escalates into conflicts, and thus conflicts can be regarded as a basic element of social life and organisation. Power is seen as a basic mechanism in this setting, because it is exercised to throttle and restrain conflicts which could promote change. (Clegg, Courpasson & Phillips 2006)

In functionalism – as represented *par excellence* in the theories of Parsons (1967) –power is seen as a positive element of social cohesion and maintenance of the social order. It is tied to the definition and achievement of collective goals. Power is understood as the capability to have an influence on the definition process, and to mobilise collective resources to achieve goals. This conception differs from conflict theories in that it builds on equable social interaction; here, each participant is able to achieve equal representation, with possibilities for the creation of mutual understanding. True, there exist also social sanctions in Parson's theory of power, but their role is to direct divergent opinions and actions towards common goals. Thus, even sanctions function as means of harmonising the commonality.

The distinction between *power over* and *power to* has also been questioned. Steward (2001) has argued that Parson's concept of power is not an alternative to the *power over* conception, but merely one version or modification within it. In Parson's *power to* model, there still exists another party within the power relation; that party is receptive, and must capitulate to the demands of majority. Clegg & Courpasson & Phillips (2006), too, suggest that facilitative *power to* and prohibitive *power over* coincide, and are mutually present in a given situation. The power that matters depends on the party to which one belongs. This leads us also to assume that power and its exercise is a two-way rather than a one-way process. Being only a one-way process, it positions one party as powerful and another party as a target for the powerful party. Furthermore, the powerful cannot themselves be the targets or victims of the exercise of power (Knights & Willmott 2004).

In any case, the concepts of *power over* and *power to* are interesting in our research. It is reasonable to analyse how both models of power become manifested and expressed in OT situations, and how they alternate in a two-way exercise of power. In fact, if one imagines what happens in OT situations, it is easy to see that both aspects of power are present simultaneously. There are different kinds of actors and hierarchies among the actors present, and they are positioned as superordinates or subordinates. There is a structural imbalance among the actors, involving a *power over*

conception. Within organisations, there are usually social systems in which certain actors are able to govern others, and to define who can or is allowed to participate in the process of goal formation. In OT situations, some actors are officially assigned to positions which give them superordinate authority. However, we assume that these positions are not necessarily fixed and that they can be contested situationally.

What is the space within which power relations and formal hierarchies can be contested or questioned? We would propose that contestation can occur in discourses. Since the linguistic turn (see Rorty [1967] 1992), conceptions of organisation have changed in a direction according to which organisational reality is seen as a collection of linguistic phenomena (Alvesson & Kärreman 2000a, 2000b). Language and its capability to mediate meaning have become understood as a constitutive element of organisation. Here we would take up the definition of discourse proposed by Ricoeur (1991) who argued that discourse refers to language usage, i.e. situations in which language becomes actualised. However, we would extend it to refer also to *meaningful action*. Action is meaningful when it is coded culturally and with collectively shared codes (Schütz [1932] 2007; Geertz 1973). Thus, we would argue that power relations and hierarchies can be questioned in discourses, and that practice includes both the verbal use of language and meaningful action. Furthermore, we see organisational power as the outcome of complex discursive negotiations.

The traditional conception of sovereign power is not sufficient in this study. Traditionally, sovereign power means direct command, and can be illustrated via the notion of *A getting B to do something that B would not otherwise do*. (Foucault 1980 [1975]; Glegg 1998; Gordon 2006). In our view the concept is not sufficient, since it does not recognise the discursive character of the construction of organisational reality. It assumes, mechanically that in the exercise of power there clearly exists a subject, who uses that power, and an object, who is the target of that use of power.

Because of the limitations of the concept of sovereign power, we adopt also Michel Foucault's (1980 [1975]) concept of *disciplinary power*. Disciplinary power is manifested anonymously, through diversified institutional practices which regulate and shape the actions of individual agents. Disciplinary power does not result from the exercise of sovereign power. Instead, it grows gradually, through negotiation by and between multiple institutional agents and is mediated by discursive practices. (cf. Glegg 1998; Gordon 2006.) The point of interest for us is that disciplinary power becomes institutionalised through discursive practices involving both the verbal use of language and meaningful action. Disciplinary power does not appear in a personalised form (as does sovereign power); instead, individual actors may internalise it within their socialisation processes. This feature connects it also to learning, when learning is regarded as a social practice in which cultural meanings and collective membership become adopted.

2.1 Learning and power

The connection between power and learning can be found in the social character of learning. Billett (2001), for instance, has argued that learning occurs in social practices and is based on people's participation in different kinds of social activities. Engagement in social communities and participation in social action enables individuals to gain new knowledge and to learn. Thus, learning is not a matter of "acquisition" but rather of socialisation and agency. Furthermore, it is not only a matter of merely being able to learn; in addition, the character of the social interaction shapes the quality and type of knowledge in question. In this way, learning is both a continuous process which can take place in many kinds of environments, and at the same time a reciprocal event, taking place between an individual and her/his social context. If there is a linkage between learning and social

relations, it is very plausible that there exists also such a linkage between learning and power relations.

A popular theory of situated learning (see Lave & Wenger 1991) originally argued that power is a central constituent of learning which takes place in work communities and organisations. The main idea in Lave & Wenger's theory involves the ways in which newcomers to working communities develop full participation by learning within different communities of practice. Learning is seen as taking place through every day practices which are historically and culturally embedded. Contu & Willmott (2003) have criticised the way in which power relations have been discarded from theories of learning. Instead, (as they argue) new control mechanisms have been packed into the language of learning, offering employees opportunities to work together more effectively. Minimal attention has been paid to how learning practices are conditioned by history, language and power.

Billett (2001) has introduced five aspects which, as he sees it, influence how and what individuals learn. Power is involved in one way or another in three of them. First of all, there are different types of activities that people are engaged in. An activity may be, for example, of a routine or a non-routine kind. Secondly, guidance in social practices may vary from direct to indirect. Thirdly, accessibility and the possibility to maintain membership in community can be peripheral or involve fuller participation. Regarding the first aspect, if the activities are routinely conducted, they are regulated by existing habits or norms. Thus, the exercise and/or existence of power is impersonal, and it depends on the legitimation of the norms. On the other hand, in non-routine activities, the exercise and existence of power is situational, depending more on personal reactions and interpersonal communication. Regarding the second aspect, the type of guidance is conditional on existing power relations. For example, one may put another person in a certain place, or that person may be favoured through the application of a certain kind of guidance. The power relations that are present also regulate the third aspect, social accessibility and the maintenance of membership. For example, in the *power to* conception, exclusion or even expulsion from the group or community is considered to be the strongest sanction against non-compliance (Clegg, Courpasson & Phillips 2006).

3 Data and methods

Setting and data collection. The findings presented in this paper are part of a larger research project conducted in a surgical clinic within a Finnish Central Hospital. A collective ethnographic approach (see Gordon, Hynninen, Lahelma, Metso, Palmu and Tolonen, 2006; Sigaud 2008; Woods, Boyle, Jeffrey and Troman 2000) was taken in conducting the research (see Paloniemi, Collin and Ruoranen 2008). Our main data collection devices were observations and interviews.

First of all, observations were collected from 12 resident surgeons and physicians by shadowing them over a total of 7 weeks. The aim was to obtain an insight into their everyday working practices. During the same period we also shadowed and observed nurses (9) working in four different wards. The data were collected using written field notes and jottings. The data also included audio-taped discussion between staff members, and between researchers and staff. In the latter case the discussion focused on professional team work, the interactions between personnel, and workplace learning situations. Secondly, in-depth interviews were conducted with doctors and nurses to recall their views concerning their work and relations with each other. Their interpretations of situations in which different kinds of power relations may have been manifested were of special interest to us. The findings presented in this paper are based mainly on observations conducted in the OT. However, interviews were utilised when they helped us to deepen our interpretations, and to gain a more holistic picture on power relations manifested in the OT.

We started to work on our data by collecting all the material from the OTs. This included jottings, field notes and recorded episodes of talk at work, plus relevant parts of interviews. After the collection phase (done separately by each of us), we then circulated the data and read each other's material. In order to obtain a general picture of ordinary events in the settings, and to find introductory events and themes to return to later in the analysis (Brewer 2000), we first read the data individually. Our purpose was to find episodes of ordinary work conversation which would involve learning and the exercise of power among disciplinary professionals in the OT. After becoming broadly acquainted with the data as a whole, we then began to discuss and share our first impressions concerning the issues in question.

On the basis of our discussions, we decided to proceed via a search for the most illustrative episodes from work situations, and especially those in which disagreement, conflicts or discontinuity/incoherence were present in the interaction. Following the notion of key incidents in grounded ethnographic analysis (Emerson 2004), we noted all the episodes in our data that seemed to imply disagreement within the interaction. We aimed to write them down in such a manner that key features (from the standpoint of power and learning) were included in the episodes. As a result, altogether ten episodes were found. The episodes, as noted down by us, included a description of the situations based on our field notes, audio taped discussions between practitioners, and those extracts from interviews which were related to the incidents in question. To gain a more holistic picture, we also aimed to construct the episodes as narratives that would take into account the events before and after the actual incidents (based on discussions or field notes). Starting from these ten episodes, we embarked on a more precise analysis, concentrating on power relations and learning.

4 Learning and power in OT situations

The analysis of the data focused on episodes selected according to the learning and power elements they displayed. The point of the analysis was to recognise interfaces and dynamics of power and learning within OT situations. For this purpose we distinguished the characters and sequences of events within the episodes selected, and looked at how different power positions were actualised situationally within the events. Characters were sorted out, first of all according their first names, and if these did not appear, by personal pronouns which referred to and marked them. The characters were also present in two different ways, i.e. explicitly and implicitly. *Explicit appearance* meant that they were physically present and that they attended to the action in the particular situation. *Implicit appearance* meant that they were referred to by the explicitly appearing characters, or that they had an influence on the action, although they were not present in the situation. In addition, the events of each episode were sorted out and organised in chronological order, so that we could follow the complete episode. Furthermore, we included interpretations of the ways in which learning took place in these situations, noting how power relations were present and/or resisted. In other words, we looked at how discursive power and workplace learning were intertwined with each other.

Next we present four selected example episodes individually, looking at the features of power and learning within them in more detail. The extracts are either from our observational field notes or from the interviews.

Episode 1: "After all, we've got Hannu (a male surgeon)"

The issue at stake in the first episode is a conflict between the duties of OT nurses and the demands of a capricious male surgeon. There are three characters with leading roles, and four supporting characters. All the names are pseudonyms. Katri is a responsible and experienced nurse, whose duty is to give guidance to Eija, a less experienced nurse. Hannu is the surgeon who is currently on call, and he will carry out the operation. The supporting characters are five–year-old Sami, who is the patient, and also the anaesthesiologist and anaesthetist. Nevertheless, their role is insignificant, since they do not participate actively in the core event.

This episode consists of two major sequences of events. The first is the preparation of the surgical operation. The sequence starts when Katri receives a phone call from the first-aid station. At this point she tries to get particulars of the next patient. She also arranges the distribution of the work with the other nurse, Eija. Their duty is to collect the equipment for the operation. Katri commissions Eija to take care of the blankets that will cover the patient during the operation. While Eija does this, Katri will take care of the equipment, and this will require visits to other units. At the end of the first sequence, Katri makes a call to the emergency unit and discovers that the patient has not been given the premedications. She herself decides to give the premedications, though this will be according to an order provided by an anaesthesiologist. Extract 1 describes the situation in which Katri takes the necessary initiative. It is taken from the fieldwork notes.

Extract 1.

> Katri is getting information from the emergency unit by telephone, about the patient who is coming for the operation, so that the information can be sent to the anaesthesiologist. The preparations are not demanding, but the patient is a child. Thus, the equipment needed for the operation is a children's catheter and cystofix. But these are not present in the OT. Katri (along with the researcher) visits the newborn unit and the children's surgical unit downstairs a couple of times, to get the missing equipment. Collecting the equipment needed by the surgeon is one of the most important duties of the nurses in preparing for an operation. The surgeon on duty is Hannu. He is not particularly popular among the nurses: he is known as someone who is constantly complaining. Thus, the nurses have to prepare many pieces of equipment, since they cannot guess in advance what Hannu will want.

From the point of view of power, there are certain points of interest. In general, there is a conflict of interest between the nurses and the surgeon. On the one hand, Hannu is a demanding and not-entirely-predictable surgeon. He is also above the nurses in the formal hierarchy and thus he has the power to give commands and issue assignments to the nurses. The combination of unpredictability and formal power produces a condition in which Hannu's commands and demands do not always meet the nurse's expectations, meaning that they have to be particularly alert in preparing the OT. Furthermore, the nurses are compelled to do extra work by looking after both the realistic demands of the operation, and the imagined demands caused by Hannu's unpredictability. Thus, there exists a contradiction in the power relationship, in that that the formal power position of Hannu reflects on the nurses, even though Hannu himself is absent from the situation. The nurses do not only obey the demands issued by Hannu that are in line with their own conception; they also obey demands which they envisage according to Hannu's character. It is noteworthy that they are not sure that Hannu's imagined demands are actually useful or necessary for the purposes of the operation. This is illustrated in Extract 2, which is a taped dialogue from the preparation situation.

Extract 2.

> **Katri**: Well, these preparations are quite demanding. They are demanding because we have to find that particular item [piece of equipment].
> **Eija**: Shall I lay out the covering with the hole? Or shall we cover the patient at all?

> **Katri**: Well ... I have a feeling that we don't need to ... but it would be worthwhile to have one in reserve. After all, we've got Hannu.
> **Eija**: Yes, it's Hannu after all. It wouldn't take long to put the cloth on the patient, if...

The distinction between the realistic preparations (formally required for the operation) and the imagined demands for preparations reveals two types of power which are present in the situation simultaneously. First of all, formal coercion exists, based on the hierarchy and realistic demands. The operation must be done in a certain way, without any risk to the patient. Secondly, there is the alleged or imagined coercion which the nurses have internalised, and which culminates in the lines where the nurses comment "After all, we've got Hannu."

The latter type of power can be interpreted in the context of the Foucaultian concept of *disciplinary power*. In this episode we can see how power becomes discursively internalised and institutionalised into organisational practices. The nurses' have internalised the awareness of Hannu's demands, and this makes them to do extra work, even though Hannu is not actually present. In this sense there is collective knowledge which is institutionalised into the organisational culture of the hospital.

Furthermore, the extract shows the connection between power and learning, making visible the discursive transfer of the collective tradition. Katri is the agent who is initiating Eija, a newcomer in the community, into collectively shared knowledge concerning Hannu. This initiation can also be seen in a wider context, in the sense that Hannu is not only an individual but also a representative of the group of surgeons. The nurses are aware that each surgeon has a typical manner of performing her/his operations, and nurses are assigned to follow the manner in question. The nurses use the term "setup" referring to the surgeons' particular requirements regarding the preparations. Thus, Hannu is only one individual example of the multiple manners of surgeons. Knowledge of these internalised "setups" belongs to the collective tradition of the hospital in general, and this tradition is transferred via discursive practices.

Overall, this episode shows the importance of culturally shared and collectively constructed perceptions of surgeons among nurses. This kind of learning is of great importance also from the point of view of inter-professional teamwork in the OT context. A great deal of nurses' work in the preparation phase consists of anticipating and following the specific requirements of surgeons, in order to be able to co-operate smoothly in the actual operation situation. Thus, it is important to have knowledge on how to "lay the table" for individual operators.

Episode 2: "Hiding the scalpel"

This second episode provides an example of a different kind of power. One could call it the "trickster" type of power. It was quite common in all the episodes in our data, and variations of it appeared in almost all of the episodes. Trickster-type power refers to a combination of manipulation and trickery. The basic type of power can be interpreted as manipulation, since in manipulation the object of power is not aware of the use of power (cf. Mills 1990 [1959]). In addition to manipulation, there is an element of trickery, which makes the user a kind of trickster.

The idea of the trickster derives from folklore, where the term refers to a certain kind of a traditional figure (Radin 1956; Alho 1988) occurring in different cultures. The trickster is both hero and deceiver. In folk tales, the figure may take either human form (John the Slave in North American Slave folk tales) or animal form (Brer Rabbit in North American Native folk tales) (Alho 1988). From our point of view, the most important feature of the trickery is that it is clever enough to fool the trickster's superiors; also that the trickster's adventures always take place in situations in

which life is structured by a strong hierarchical order, with few opportunities for alternative behaviour. Thus, the trickster turns the tables on his superiors, and gains some relief in a bleak state of affairs.

The episode is based on an interview in which Katri, an experienced instrument nurse, describes the characteristics of surgeons and their enthusiasm for practising surgery the moment they enter the OT:

Extract 3.

> **Katri**: As everybody knows, surgeons are not the kind of people who can wait for anything for long. When they enter the operating theatre, it's like, if you don't hide the scalpel under something, they'll start cutting as soon as they get hold of the scalpel. So, if you don't want them to begin, you need to hide the scalpel until you want the operation to begin. In that way you'll be ready for the operation.

The extract shows how hierarchical positions can be adjusted by situational manipulation. Although a surgeon has the position of power in the operation, nurses can control the situation without the surgeon realising it. This is done in a somewhat comical manner. By hiding the scalpel and delaying the operation the nurses can gain more time, regardless of the superior position of the surgeons. Thus the agentic strategies are not used merely to make space for nurses' active agency; at the same time they maintain the culturally shared collective practices of manipulation in work communities.

Episode 3: "The wrong instrument"

In the third episode there are four characters on the scene: two residents and two instrument nurses. The events form a sequence in which the resident loses face by mistakenly asking for the wrong instrument. This leads to a minor conflict of authority between the resident and the two nurses. The conflict also contests the hierarchy by producing two camps: the more experienced nurse bands together with the inexperienced nurse against the resident. In the resolution of the episode, the nurses are able to rebuke the resident who spoke sharply to the inexperienced nurse in the middle of the episode. Extract 4 from the field notes describes the situation.

Extract 4

> A resident, Matti, is amputating a patient's leg and being supervised by another, more experienced resident. The nurse working with the instruments is an inexperienced nurse, Nina. She too is guided by an experienced nurse, Seija, who is responsible for OT practices. During the operation, Matti asks for a particular instrument. The instrument Matti is asking for happens to be the wrong one. Nina has doubts about the instrument, but hesitatingly hands the instrument to the resident. The instrument is the one Matti asked for, but not the correct one. Thus Matti speaks sharply to Nina. In this situation, Seija supports Nina by saying that she gave the instrument that was asked for. Soon, a similar situation recurs and Matti emphatically asks for the right instrument. Nina and Seija look at each other and nod their heads approvingly.

The type of power here is authority. It refers to power which superordinates assign to their superiors voluntarily, because they believe that the superiors have certain capabilities which enable them to carry out the task better than their subordinates. In this particular instance, of course, the superior resident does not manage the task better, and the superordinate nurses are able to contest the hierarchy. This episode illustrates how a certain hierarchy can be overturned situationally by contesting the order of authority. At the end of the episode a trickster theme emerges: the nurses have shown that they are wiser that their superiors by having better knowledge of the issue at stake, and they enjoy their victory.

This episode also illustrates the movement from peripheral to full participation in the work practice (see Lave & Wenger 1991). In particular, the forms of direct and indirect guidance (Billett 2001) are present in this episode, in which the experienced nurse, Seija, guides the inexperienced nurse, Nina. Under Seija's guidance Nina learns to follow the orders of the resident, even though she is doubtful about the situation. As an inexperienced nurse, she is not in such a strong position that she could question the correctness of the resident's request. However, as the situation progresses, she is given support for her own knowledge regarding the naming of the instrument, and thus her position is strengthened on the basis of having the correct knowledge. In this episode Nina has also had the opportunity to participate in routine activity and practice in the OT.

The core issue in the episode is the learning of organisational cultures that manifest the hierarchical positions of professional group members, including learning via direct guidance. In the hospital context, employees are often thrown into situations that are urgent and immediate, in which various kinds of cultural knowledge are needed to cope. Consequently, the inexperienced instrument nurse, Nina, also learns delicate means of resistance and manipulation from her more experienced colleague, Seija. By direct and indirect guidance, the activities and workplace collective tradition is transformed and learned discursively by more experienced co-workers. Direct guidance seems to be more typical within particular vocational groups such as nurses. It consists of guidance which helps less experienced employees to learn various competencies and work activities of increasing accountability and complexity (see Billett 2001). Indirect guidance, for its part, may well take place between different vocational groups. Indirect guidance is typically related to everyday cultural practices involving colleagues from different areas, as can be seen in the preceding episodes. Even though there is a good deal of potential for direct guidance between vocational groups, for instance in forms of knowledge sharing, or in discussions during action and the evaluation of practice, in our data they are absent. Instead, for example in the everyday practices of OTs, what we frequently find is indirect guidance in learning hierarchical practices and collaboration between different professionals.

Episode 4. "Operating on the mole"

Episode four is a variant on the theme of overturning the hierarchy by contesting authority. There are four explicit characters on the scene: a specialist surgeon who is performing the main operation, a specialising resident who is under the supervision of the specialist, an instrument nurse, and another nurse. There is also a patient, but her existence is more implicit than explicit, although she is present in the scene passively. Her existence and her influence on the initiation of the episode is reminiscent of Hannu's internalised influence in Episode 1.

The episode starts with a reference to the patient's request, prior to her breast cancer operation, for the removal also of a small mole located in her armpit. At the end of the operation the patient's request is negotiated in the following way between the specialist and the nurses:

Extract 5.

> **Instrument nurse**: And then there is also that (refers to the mole)...she (the patient) asked for it...?
> **Specialist surgeon**: Well, what's she got there?
> **Instrument nurse**: She asked for... there's a kind of a pimple there.
> **Nurse**: Oh that one...now I remember...it must be that one (showing the mole).
> **Specialist surgeon**: Actually she didn't have any conversation about that with me...
> **Instrument nurse**: Well, I think she thought that it might be possible to operate on it at the same time...
> **Specialist surgeon**: No...(long pause)...we won't make any extra holes in there.

The episode continues and after this the specialist starts guiding the resident. At that time no one returns to this item any more. Consequently, the specialist surgeon overlooks the patient's request for removal of the mole. Her opinion is that the operation is unnecessary in this situation, even though the nurse has tried insistently to remind the surgeon about it. As the operation proceeds the specialist leaves to attend to another operation, and rest of the team starts the stitching phase. Now the instrument nurse again carefully turns to the resident about the mole. It seems that as if the resident is just about to forget about the mole. Following a short conversation the resident simply operates on the mole, even though the specialist has refused to do so.

Extract 6.

> The resident removes the mole which the patient has asked to be removed. The interesting part of this episode is how carefully the nurse reminds the resident about the mole ("How about the mole?"). The resident has obviously completely forgotten about the mole.

This episode gives a nice illustration of how actors with less power in the situation (a resident and nurses) learn to know and broaden the limits of their potential participation and agency in the OT community. This broadening of individual participation in collective cultural practices is a slow process, as can be seen in the way the resident's individual decision to remove the mole develops. While the nurses in this episode already seem to be aware of means to practise their active agency in this kind of situation, the resident has only begun to trace her role in the community. With the help of the nurses' delicate "support" she takes the risk of operating on the mole, though not until the surgeon (the authority) has left the OT. Thus, significant learning takes place in terms of finding, experimenting with and transgressing the boundaries of participatory agency. A strengthening of collective participation also occurs situationally. For example, in another very similar situation, without the presence of such empowered nurses, it might well have been that the resident would not have operated on the mole al all. Thus, subjective agency is a prerequisite for broadening participation in decision-making, and in one's role in the community.

5 Conclusions

In this study we have analysed the interconnectedness of power and workplace learning in OT situations. With the help of the concept of power, our main aim was to show how formal hierarchies and orders of power can be contested situationally, within discursive practices. We included both action and verbal communication within discursive practice, since both can be regarded as meaning-mediating activities. Instead of considering learning as the acquisition of knowledge and skills, we have understood learning as a socio-cultural activity and participative practice through which workplace culture becomes shared, both individually and collectively. This is precisely the point at which learning and power becomes intertwined. Learning is a social and cultural phenomenon, and in this paper we suggest that power is always to some degree embedded in social relations.

We identified different forms of power. These may determine what can be learned at work, and how. We learned that power can be a *structural* kind of power, this being the kind of power that strongly constitutes the work practices of vocational and professional groups. For instance, the procedures and processes in the OT are strictly predetermined and regulated. Similarly, there are hierarchical relations between vocational groups which usually cannot be crossed. However, we found many kinds of more implicit manifestations of power, and especially forms of activities, by means of which the exercise of power is manipulated and even restricted. Thus, forms of manipulation can be used situationally to meet the requirements of the matter at hand. For example, by "hiding the scalpel" nurses learned to control surgeons. On a broader level, by such practices they learn important cultural practices and become members of the work community.

In addition, by revealing forms of direct and indirect guidance (see Billett 2001) we have shown how power can be exercised and learning enhanced. These kinds of ways of achieving active participation and developing one's agency are further examples of ways of becoming a full member of the community, and they involve processes of learning in the workplace (Eteläpelto 2008).

Knowledge of how to prepare for an individual surgeon's operation (referred to here as knowledge of the surgeon's "setup") is another example illustrating how practices are institutionalised and learned. The core of the institutionalisation lies in the social dimension/feature of a surgeon's setup. Surgeons are not just individuals pure and simple; they are also collective actors who play a certain social role. The knowledge of different setups constitutes a socially-constructed tradition which is collectively shared. Another example of this institutionalised knowledge involves the internalised power of the surgeon, Hannu – power that had an influence on the nurses even when Hannu was not physically present.

The results of this study also shed light on traditional conceptions of "powerful" and "powerless" by illustrating how power relations are constituted and constructed. Usually, powerfulness has been connected to structural positions in a hierarchy, meaning that who are at the higher level have power, and those at the lower level do not have power. In this study we looked at powerfulness from the constructionist point of view, and in so doing demonstrated that power does not only depend on structural positions, but also on the agency of certain individuals or groups in particular situations. The nurses were able to intervene in the ongoing social processes, with power becoming redistributed discursively; hence from time to time power moved from higher hierarchical positions to lower positions. It also became clear that being powerful or powerless is not fixed in advance, but is incessantly contested. Furthermore, although there is insufficient space for discussion of the concept of empowerment here, our study gives a hint of the aspects that might enter such a discussion, by illustrating the kinds of transitions that can take place in discursive space.

Overall, we would suggest that learning processes are integral to the exercise of power and control, rather than external or unrelated to the operation of power relations (Contu & Willmott 2003; Lave & Wenger 1991). This was shown in our data in many ways, as described above. In addition to the assimilating of various competencies and skills needed at work (within vocational groups), learning processes can be interpreted as essential sources of the exercise of power in workplace practices (see Eriksson-Piela 2003). However, as our findings suggest, there are many other forms of power which even more clearly determine ways of learning, and what is learned, in everyday practices.

Our analysis in the OT context represents an attempt to bring questions of power relations to the forefront of discussions of workplace learning through an examination of authentic situations in the workplace. We have also emphasised the close relationship between learning and manifestations of power, together with the various forms of these manifestations and the restrictions that may be placed on them. Thus, learning practices need to be understood as enabled and constrained by their embeddedness in relations of power. However, further investigations are needed, for instance regarding how power is exercised in different work contexts, and among/between different vocations. This would be important if we are to understand, for instance, the challenges of inter-professional work and how we might go about enhancing and developing inter-professional learning and collaboration in the workplace.

References

Alho, O. (1988), *Hulluuden puolustus. Ja muita kirjoituksia naurun historiasta*, Helsinki, WSOY.

Alvesson, M. & Kärreman, D. (2000a), Taking the Linguistic Turn in Organizational Research: Challenges, Responses, Consequences. Journal of Applied Behavioral Science. 36.

Alvesson, M. & Kärreman, D. (2000b), "Varieties of Discourse: On the Study of Organizations Through Discourse Analysis", *Human Relations*, vol. 53 no. 9, pp. 1125-1149.

Billett, S. (2001a), "Learning through working life: interdependencies at work", *Studies in Continuing Education,* vol. 23 no. 5, pp. 19-35.

Billett, S. (2001b), *Learning in the Workplace. Strategies for effective practice*, Crows Nest, Allen & Unwin.

Billett, S. (2004), "Workplace participatory practices. Conceptualising workplaces as learning environments", *Journal of Workplace Learning*, vol. 16 no. 6, pp. 312-324.

Billett, S. (2006), "Relational interdependence between social and individual agency in work and working life", *Mind, Culture and Activity,* vol. 13 no. 1, pp. 53-69.

Billett, S. and Somerville, M. (2004), "Transformations at work: identity and learning", *Studies in Continuing Education,* vol. 26 no. 2, pp. 309-326.

Brewer, J. D. (2000), *Ethnography*, Buckingham, Open University Press.

Clegg, S., Courpasson, D. and Phillips, N. (2006), *Power and Organizations*, London, Sage.

Collin, K. (2005), *Experience and Shared Practice – Design Engineers' Learning at Work*, Jyväskylä Studies in Education, Psychology and Social Research 261, University of Jyväskylä.

Collin, K. (2009), "Work-related identity in individual and social learning at work", *Journal of Workplace Learning*, vol. 21 no. 1, pp. 23-35.

Collin, K., Paloniemi, S., Virtanen, A. and Eteläpelto, A. (2008), "Constraints and challenges on learning and construction of identities at work", *Vocations and Learning*, vol. 1 no. 3, pp. 191-210. Available at DOI 10.1007/s12186-008-9011-4.

Collinson, D. (2000), "Strategies of resistance: Power, knowledge and subjectivity in the workplace" in Grint, K. (ed.), *Work and society. A reader*, Cambridge, Polity Press, pp. 162-195.

Contu, A. and Willmott, H. (2003), "Re-embedding situatedness: The importance of power relations in learning theory", *Organization Science*, vol. 14 no. 3, pp. 283-296.

Eriksson-Piela, S.(2003), *Tunnetta, tietoa vai hierarkiaa? Sairaanhoidon moninainen ammatillisuus,* Acta UniversitatisTamperensis 929, Tampere, University of Tampere.

Eteläpelto, A. (2008), "Perspectives, prospects, and progress in work-related learning", in S. Billett, C. Harteis and A Eteläpelto (eds.), *Emerging Perspectives of Workplace Learning,* Sense Publishers, pp. 233-247.

Fenwick, T. (2008), "Understanding relations of individual – collective learning in work: A review of research", *Management Learning*, vol. 39 no. 3, pp. 227-243.

Foucault, M. (1980 [1975]), *Tarkkailla ja rangaista [Surveiller et punir]*, Helsinki, Otava.

Geertz, C. (1973), *Interpretation of Cultures*, BasicBooks.

Glegg, S. (1998), "Foucault, Organization and Power" in Grant, D., Keenoy, T. and Oswick, C. (eds.), *Discourse + Organization*, London, Sage, pp. 29-48.

Gordon, R. D. (2006), *Power, Knowledge and Domination*, Copenhagen, Copenhagen Business School Press.

Gordon, T., Hynninen, P. Lahelma, E., Metso, T., Palmu, T. and Tolonen, T. (2006), "Collective ethnography, joint experiences and individual pathways", *Nordisk pedagogic,* vol. 26, pp. 3–15.

Halford, S. and Leonard, P. (2005), "Place, space and time: contextualizing workplace subjectivities", *Organization Studies,* vol. 27 no. 5, pp. 657–676.

Kira, M. and Frieling, E. (2007), "Bureaucratic boundaries for collective learning in industrial work", *Journal of Workplace Learning,* vol. 19 no. 5, pp. 296-310.

Knights, D. and Willmott, H. (1989), "Power and subjectivity at work: From degradation to subjugation in social relations", *Sociology,* vol. 23 no. 4, pp. 535-588.

Lave, J. and Wenger, E. (1991), *Situated learning: Legitimate peripheral participation*, Cambridge, Cambridge University Press.

Leonard, P. (2003), "Playing' doctors and nurses? Competing discourses of gender, power and identity in the British National Health Service", *The Sociological Review,* vol. 51 no. 2, pp. 218–237,

Lingard, L., Reznick, R., Espin, S., Regehr, G. and DeVito, I. (2002), "Team communications in the Operating Room: Talk Patterns, Sites of Tension, and Implications for Novices", *Academic Medicine,* vol. 77 no. 3, pp. 232–237.

Lingard, L., Espin, S., Evans, C. and Hawryluck, L. (2004), "The rules of the game: Inter-professional collaboration on the intensive care unit team", *Critical Care*, vol. 8 no. 6, pp. R403-R408.

Mills, C. W. (1990 [1959]), *Sosiologinen mielikuvitus [The Sociological Imagination]*, Helsinki, Tutkijaliitto.

Nembhard, I. M. and Edmondson A. C. (2006), "Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams", *Journal of Organizational Behaviour,* vol. 27, pp. 941-966.

O'Doherty, D. and Willmott, H. (2001), "The question of subjectivity and labor process", *International Studies of Management and Organization*, vol. 30 no. 4, pp. 112-132.

Paloniemi, S., Collin, K. and Ruoranen, M. (2008), "A Collective Ethnographic Method in Researching Surgical Workplace Learning – Experience and Practice in the Field", *Paper presented in ECER-Conference* 12.9.2008, Gothenburg, Sweden.

Parsons, T. (1967), *On the Concept of Political Power. Sociological Theory and Modern Society,* London, Free Press.

Radin, P. (1956), *The Trickster. A Study in American Indian Mythology*, London, Routledge and Paul.

Ricoeur, P. (1991), *From Text to Action. Essays in Hermeneutics, II,* Evanston, Northwestern University Press.

Rorty, R. M. ([1967] 1992). Metaphilosophical Difficulties of Linguistic Philosophy. In The Linguistic Turn. Essays in Philosophical Method. Chicago: The University of Chicago Press.

Schütz, A. ([1932] 2007), *Sosiaalisen maailman merkityksekäs rakentuminen [Der sinnhafte Aufbau der sozialen Welt: Eine Einleutung in die verstehende Soziologie]*, Tampere, Vastapaino.

Sigaud, L. (2008), "A collective ethnographer: fieldwork experience in the Brazilian Northeast", *Social Science Information,* vol. 47, pp. 71–97.

Stewart, A. (2001), *Theories of Power and Domination*, London, Sage.

Yoong, K. and Cervero, R. M. (2005), "Learning the boss' way: ownership, power and learning in practice and in workplaces", *International Journal of Lifelong Education*, vol. 24 no. 6, pp. 489-506.

Woods, P., Boyle, M., Jeffrey, B. and Troman, G. (2000), "A research team in ethnography", *Qualitative Studies in Education*, vol. 13, pp. 85–98.