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Negotiating safety practice in small construction companies

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ABSTRACT

Small construction companies have high rates of work related injuries and pervasive challenges in preventing them. This article examines safety practice from the employee perspective, taking into account the role of the owner–manager and interactions with customers in everyday work settings. Data were derived from a qualitative multi-case study of ten small construction companies (carpentry/plumbing/masonry) involving one or two-man work crews. The analytic approach is phenomenological, based on thematic content analysis of interviews and participant-observations. The employees' general approach to safety was "to take care of oneself", which, in addition to standardized rule-based knowledge, drew on individual feelings, personal experience and the balancing of various concerns in different work settings, e.g. workflow, customer satisfaction, good work relations and safety issues. In the context of small companies, safety practice was negotiated in the tension between owner–manager decisions and employees' self-administration, which also was reflected in the way safety was communicated and learned within the companies as a matter of professionalism and individual mastering. Safety was rarely in explicit focus among employees in the small construction companies. It was an intrinsic part of their craftsmanship, established and negotiated in work situations and in interactions, in particular with customers. Safety issues were rarely shared or communicated as a common issue within the company. Consequently owner–managers had limited impact on the employees' daily safety practices. Injury prevention approaches should take into account the limited impact that owner–managers had on the day-to-day safety practices, as well as the importance of the employees' relationships with the customers.

1. Introduction

The construction industry is a high risk industry with high incidences of injuries, sickness absence, and disability-retirement (Spangenberg, 2010). Safety research often focuses on large construction companies and sites (Robson et al., 2007), while less attention is paid to construction employees in small companies, working individually or in pairs at different smaller sites, and doing service tasks in both private homes and public buildings. Small companies account for the overwhelming majority of construction companies, in both the European Union and the USA (Eurostat, 2011; U.S. Census Bureau, 2011). At the same time small construction companies have higher rates of work related injuries than larger companies (McVittie et al., 1997). Technical, organisational and cultural efforts to improve safety in many branches over the past twenty years have been successful in contributing to reductions

in injury rates, however, similar reductions have not been seen in construction (Nielsen et al., 2012). Therefore, there is still a need for research into the specific challenges for small construction companies to improve safety.

Previous research on safety and small companies has shown that there are special conditions in small companies that may have important safety implications (Hasle and Limborg, 2006). The studies have focused on how the owner–manager's values and priorities affect the culture in the company, as well as the social relations and attitudes towards work and safety issues. Small companies are usually run by owner–managers, who are responsible for many different kinds of tasks simultaneously (planning, administration, accounting, bidding on tenders, doing practical work together with the employees, etc.). Safety issues are subsequently sometimes overlooked in favour of other more urgent and tangible tasks, including the struggle for the economic survival of the company (Andersen et al., 2007; Hasle et al., 2004). Moreover many countries have other, less demanding regulatory requirements for small companies than for large ones. E.g. in Denmark companies with ten or more employees are required to have an employee-elected

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occupational safety and health (OSH) representative, and companies with 20 or more employees are required to have an OSH organization. This means that safety is not formalized to the same degree as in larger companies, which in smaller companies often results in reactive and ad hoc problem solving rather than proactive, formalized and systematic injury prevention. Safety issues in small companies are thus mainly delegated to the employees, who themselves are responsible for their own safety (Eakin, 1992; Hasle et al., 2009). These studies focus on the owner–manager perspective, their attitudes to regulation and approach to accidents, and they take into account the work at the company site. The literature lacks a construction employee perspective: how safety practice is developed and maintained, and how safety is perceived and practiced in work situations and in interactions with the owner–managers and customers in the field.

The specific research questions in this paper are:

(1) How is safety perceived and practiced in small constructions companies – with special attention to how employees practice safety in everyday work situations?
(2) How is safety negotiated in interactions within the companies – especially between the owner–manager and employees?
(3) How do the interactions between employees and customers influence safety priorities in work situations?

2. Methods and materials

This paper is based on a qualitative multi-case study in small construction companies (with less than ten employees). Three different construction professions – carpentry, plumbing and masonry, were chosen due to their high incidence of work related injuries (Kines, 2001).

2.1. Methodological approach

From a phenomenological approach, seeking insight into how the world is experienced and meaning is constructed, the aim of our study was to gain insight into the employees' risk comprehension and everyday safety practice. In order to do so we used participant observation as the main data source, supplemented with semi-structured interviews and informal conversations, followed by a phenomenological inductive analysis. Through this engagement in the everyday work life of the employees, the purpose was to gain insight regarding work processes, tacit knowledge, how the days are structured, and interactions between the employees, i.e. how safety is understood, communicated and learned within the companies. In this sense, the researcher's learning process by participating can be seen as equivalent to how members of an organisation learn culture (Hasse, 2011).

2.2. Recruitment

The small companies were first identified through the national register of private companies, and then through company internet homepages. Selection was based on the following criteria: (1) size (less than ten employees), (2) professions (carpenter, plumber and mason), (3) geography (the greater Copenhagen and Aarhus area – the two largest cities in Denmark), and (4) accessibility. An email was sent to 39 potential companies, with the objective of having 3–4 companies from each profession. This was followed up by telephone calls, after which four plumber, three carpenter and three masonry companies agreed to take part in the study (Table 1). When 3–4 companies agreed to participate from a specific profession, no other companies were contacted. Not all companies were reachable by telephone, and some were assumed to have gone out of business. The companies that declined to participate gave various reasons for doing so: some simply refused, others did not return our calls, while others did not have time or felt that the research method (participant observation) would cause problems with their employees or customers.

The companies that agreed to participate were generally interested in OSH issues, and were glad to participate. Despite this, they still had many challenges regarding OSH. Most companies were not in any way extraordinary in regards to safety, but it is fair to say that they were not the ones with the greatest OSH challenges either.

2.3. Data collection

In the ten companies we carried out 19 days of participant observation, six days each with plumbers and carpenters, and seven days with masons. We accompanied one or a small group of employees from each company during the work day and 'shadowed' (Czarniawska, 2007) them on whatever task they were on. The participant observations varied on a spectrum from primarily observing to taking part in the actual work. By joining, working with, and talking to the employees during ordinary work days, driving with them back and forth to the workshop, to customers, to the wholesaler, etc., we sought insight into the practices, routines, norms and how employees come up with safety solutions on the spot and/or deal with safety matters in work situations, where they e.g. lack the proper tools or equipment – practices, that otherwise would have been difficult to gain insight into.

The first (sociologist) and second (anthropologist) authors carried out the data collection – each in about half of the companies – in the Copenhagen area and Aarhus area, respectively. The data material consist of 22 semi-structured interviews with employees, apprentices and owner–managers, (both individual and group interviews), observation notes and notes from conversations carried out during breaks, while working or driving from work assignment to

Table 1
Data collection sources from the small construction companies.

Companies	Participant observation (days)	Informants included in the study (observations, interviews, conversations or phone conversations)	Number of semi-structured interviews
Plumbing 1	1	4 Plumbers, 1 apprentice	2 (1 Plumber, 1 senior managing plumber)
Plumbing 2	3	Owner–manager, (secretary), 4 plumbers	3 (2 Plumbers)
Plumbing 3	2	Owner–manager, 2 plumbers, 1 apprentice	2 (1 Plumber)
Plumbing 4	–	Owner–manager, 1 senior craftsman	1 (Senior managing plumber)
Carpentry 1	3	Owner–manager, 3 carpenters + 1 apprentice, 2 subcontracted masons	4 (3 Carpenters and 2 masons)
Carpentry 2	2	2 Carpenters and 3 apprentices	2 Group interviews (2 carpenters, apprentices)
Carpentry 3	1	Owner–manager, 1 senior craftsman with managing responsibility, 2 carpenters	2 (Owner–manager, apprentice)
Masonry 1	4	Owner–manager, 1 mason	2 (With 1 mason)
Masonry 2	2	Owner–manager, 1 mason, 1 apprentice	2 (1 Mason, 1 group interview with owner–manager and mason)
Masonry 3	1	Owner–manager, 1 mason	2 (Owner–manager, mason)

assignment. Most interviews/conversations were recorded and transcribed, however due to extensive noise at some sites, this was not always possible. In such cases notes were taken. The questions in the semi-structured interview guide revolved around work practices, work procedures, norms and values of the company, risk comprehension and safety practices, experience with work accidents, and the social organisation of the company. The interview guide was used as a checklist, assuring that we covered the desired themes, and at the same time leaving room for the employee to convey the stories they found the most important (Kvale, 1996). Conversations differed from interviews by not following the interview guide. They occurred at the work site during work, were guided by more general themes, and were among other things used to get the employees to reflect on the practice we observed.

2.4. Data analyses

Transcribed interviews, field notes and notes from informal conversations were imported to Nvivo 9 (QSR-International, 2010) for further analysis. In accordance with the phenomenological inductive approach, we sought to let empirical concepts and categories guide the analyses. Following a grounded theory approach the data material were coded by thematically dividing it into emergent categories based on the craftsmen's own expressions, perceptions, experiences of risk and safety (e.g. 'taking care of oneself', 'stories of accidents') as well as categories of different social contexts ('hierarchy', 'being a good colleague', 'interaction with customers'). The coding was conducted and discussed continuously by the first and second authors, as well as in collaboration with the other authors.

2.5. Theoretical framework

In the analysis and discussion of the empirical finding, we draw on concepts from symbolic interactionism, such as 'social world' and 'negotiated order' (Strauss, 1978a,b). Within this perspective, the focus is on social process and the dynamic organization around an activity, instead of looking at organizations with closed boundaries, formal membership and top-down activities. The perspective is useful in order to explore how safety is negotiated in situations and relations as a legitimate action.

We also use the theory of learning in the *community of practice* (Lave and Wenger, 1991), *organizational learning* (Gherardi et al., 1998a) and *situated safety* (Gherardi et al., 1998b). In this perspective we will focus on how safety is established in a learning process, not just as an individual bodily and cognitive process, but as a *social practice* closely linked to the socialization of newcomers into the community of practice.

3. Results

The main thematic outcomes of the interviews, informal conversations and participant observation notes are summarized in Table 2 in relation to the research questions, and are discussed in the following sections.

3.1. The perception and practice of safety in everyday work situations

The employees in the small companies we have studied have a generally positive approach to safety, and they apparently give it high priority. "*Here safety is under control*" and "*Safety first*", are

Table 2
Thematic coding themes for interviews, informal conversations and observation notes with workers in small construction companies.

Research question and related analytical themes	Main coding themes emerging from the data (alphabetical order)
1. How is safety perceived and practiced in small constructions companies – with special attention to how employees practice safety in everyday work situations? Perception and practice Safety first, safety as a compromise, safety as mastering and feelings, personal experience and individual responsibility Translating and evaluating laws	• Accident narratives • Consequences of accidents • Evaluating safety rules • Ignoring risks – "it's just a simple little task" • It is my own fault – own responsibility • Knowledge about rules and safety procedures • Tempo and time pressure • To take care of oneself – injury/accident prevention • Use of and lack of safety equipment
2. How is safety negotiated in interactions within the companies – particularly between the owner–manager and employees? Doing it your own way Learning Negotiating hierarchical positions: Freedom and control Safety communication To make decisions regarding professionalism and safety	• Communication and safety • Company values • Economy • Good and bad work tasks • Hierarchy and positioning • Injuries as part of the job • Learning • Professionalism and pride • Relations with colleagues • Story telling – reflection on the past • To take care of oneself – social context
3. How do the interactions between employees and customers influence safety priorities in work situations? Being service-minded Concerns (economic, professional, good relations, customer service, workflow, tradition, safety) Finding solutions on-the-spot Maintaining good customer relations Non-standardized safety practice Social competences The logic of workplaces	• Customer relations • Difficult and awkward working conditions • Finding solutions in spite of conditions and context • Ignoring risks – "it's just a simple little task" • Organising of work • Professionalism and pride • Rooted in the local community • Something unpredictable occurs • Tempo and time-pressure • To take care of oneself – social context • Workflow

some of the ways this is expressed. If you look further into these attitudes and study *how* safety is practiced in everyday work situations, safety appears to be a very complex and non-specific practice, which is consistently referred to as "*to take care of oneself*", "*to think twice*" and "*to use common sense*", which is a very individual practice that refers to many different aspects.

Firstly, to take care of oneself means taking personal responsibility, meaning the employees regard it as their own job to provide safety during work in that they mostly work alone, and they rarely know the working conditions in advance. In providing safety they draw not only on standardized factual knowledge of safety rules, but they also involve experiences and feelings, which guides them in what they can master.

> "*Sometimes you do things that you yourself know may not be exactly as required, but where you know that you can save an hour or two. For example, standing on a ladder on top of a piece of plywood that is loosely laid over some beams. Some can do this, and others cannot - that is, as long as you feel safe about it. It is often those who try to push themselves when they feel unsafe ... it is often those who are injured.*" (Mason)

In line with this, what is perceived as dangerous by one employee is not necessarily perceived as dangerous by another, as safety is a matter of the individual's mastery of the craft, the tools, work positions, etc. Thus, the individual's experience with accidents also affects which specific risks he/she is aware of.

> "*I try to learn from it (referring to a cut injury). I need to be a little more aware of wearing gloves when I work with glass.*" (Carpenter)

In contrast, these experiences were rarely shared or used for common learning within the company. Personal experience with what goes well and what does not are thus central to the craftsmen's safety practices. However, it is not only experiences with accidents, but also, for example, experiences of the necessity of being efficient, an owner–manager's demands and mood, or the customers' demands and mood, which affects what the employees are concerned with.

Secondly, safety as seen from an employee's perspective is very much a matter of translating legislation, regulations and standards into specific action in work situations, as the legislation is perceived as something that does not fit into various work situations. A senior plumber says:

> "*Well, I would say that we take safety quite seriously, but I am certain we don't comply to the letter with everything. It depends on what is to be done and how so-called 'dangerous' you perceive it to be. You shouldn't lift more than 15 kg, and then I ask them (colleagues) to carry a 30 kg heater up to the 7th floor, right. That's the way it is. What else can we do? We can't be eight men to carry a heater up the stairway.*"

To take care is thus a comprehensive practice based on assessments and prioritization including experiences and feelings.

3.2. How is safety negotiated in interaction between employees and the owner–manager

In the following we will focus on three aspects of interaction between the owner–manager and employees – namely the negotiation of positions in the hierarchy, the safety communication and the learning of safety. On the one hand, the employees perceive their work as free and independent, but on the other hand they are in no doubt that it is the owner–manager who is in charge, and who makes the overall decisions The way in which the employees take responsibility for their own safety must be understood in light of the way freedom and control are continuously negotiated between the owner–manager and their employees. The following case example is from a masonry company, where a recently hired employee and the owner–manager had disagreements about pay, holidays and how best to perform the craft.

> *The employee is putting up tiles, but the tiles which the owner-manager has ordered do not fit. The owner-manager questions it on the phone, and says they fit and he tells the employee to do the work. The employee does not want to put up the wrong tiles and he tries continually to get hold of the owner-manager on the phone. Much of the working day is spent waiting and considering the consequences of either not doing the work, putting up the wrong tiles, spending time buying new ones or doing work for other customers.* (Extract from observation notes)

The interaction between the owner–manager and employees in this example is marked by the tension between trust and control and negotiations about who is in charge, who can make decisions and how to perform the work.

In many ways the employees describe interactions with the owner–manager as something they try to avoid, as it is associated with control, being accountable and the risk of being assigned annoying tasks, e.g. if you seem not to have enough work to do. Therefore, the owner–manager's absence is a good sign and is perceived as a sign of trust and recognition. "*He did not even bother inspecting my work*", a mason proudly says, referring to the fact that the owner–manager of the company did not bother to check if the tiles were set up nicely when making inspections. To the mason this indicated that the owner–manager trusted him and was confident he did his job well.

Safety practice is hence negotiated in the tension between management (doing what they are told) and self-administration (doing it your own way and taking responsibility). The owner–managers demand and depend on the employees to *do the right thing*, even though it is often unclear what exactly the right thing to do is. An apprentice puts it this way: "*Safety depends on whether you have an X or Y employer – whether it is one cracking the whip over you, or one who just gives good advice* ". The owner–manager's attitude, orders and priorities are not always perceived as something that helps protect the employee, but as something that can help improve the workflow or make it difficult.

The fight for positions, recognition and professionalism is also reflected in the way safety is communicated in small companies. In the next quote a carpenter explains the limits of how to talk about safety.

> "*It may well be that I ask where people's helmets are if they have just forgotten them... but it's not something I can go and say to adults that ... well, that they must wear it, right, but that should be said by their respective companies. They are pretty much responsible for their own people, aren't they?*"

The quote emphasizes that we cannot rebuke *adults*. You can rebuke an apprentice, but not a colleague – and certainly not an employee from another company. Boundaries of what can be said to whom and how are hence reflected in the quote. A bricklayer provides another example of 'the dictator' – a very officious safety manager at a construction site where the bricklayer had worked. The nickname is very indicative for the perception that safety communication can be seen as dictatorial.

The ability to share experiences and communicate about safety is not consistent with the hierarchical understanding of competence and communication as something that primarily involves giving orders down through the hierarchy. This is also illustrated by the following quote from an interview with a carpenter:

> Owner-manager: "*Young people are good at using safety equipment. They have it in the company cars and they often use them.*

You can clearly feel that the old-timers, they think, it's just a single sheet of plywood I have to cut – it doesn't create too much dust or noise. But the others - the apprentices, they are far better at it (using personal protective equipment), and I think that's great."

Interviewer: *Do the apprentices say anything to the rest of you - "Hey, remember to ..."?*
Owner-manager: *"Well ... we have a free and open tone. It's not like you are the bottom of the hierarchy. You can easily say things like that. And then the journeyman says, 'No, that is something I decide. I don't want to do that now - it's just a single sheet of plywood', or he can say, 'Yes of course, I need to have earplugs on when I am cutting plywood."*

Although the owner–manager in the above quote believes that the younger employees can encourage the older employees to use protective equipment, he describes it as legitimate for the older employee to do as he pleases. This understanding supports the perception of safety as an individual matter and not shared or communicated as a common issue.

Further to this, there are specific expectations for how safety is learned in this context:

"The younger ones (carpenters) have to know their own limitations and say: 'I can do this, but I can't do that'. When you have hurt your back once by doing something - then you know that this is something you should not do again." (Senior carpenter)

At the same time the older employees and owner–managers meet the apprentices with special expectations and attitudes, which are influenced by their own experience from a long life working in construction, stories about how dangerous the profession was in the past, how pampered young people are today, etc. A senior plumber tells:

"Young people are wimps if you ask me. For instance, if they have to carry a heater, they'll say: 'No, we must get a moving company to do that', and 'Ohh, it's so cold outside and the other guy won't dig when we do sewer work. It's lousy work'. There is a lot of complaining. Ya, it's crazy, but it is also how they look at it. I think it's the best job in the world being a plumber, and I have felt that from the very first day I started as an apprentice. So I'm damn proud of being a plumber when I go home. The young people don't have the same approach. They are just here because they want to earn some money, and then in four years they have a journeyman's certificate, are qualified to do something, and then everything's supposed to be fine and dandy. And they're damn well always sick. They have no sense of responsibility."

The examples show that young people on the one hand are expected to conform, learn the lessons and contribute by doing the dirty and hard work without complaining. At the same time they are expected to take responsibility for their own safety, to gain experience and speak out at the right time. There are some special expectations and ways to learn the craft safely, and become a real employee through participation in the community of practice – a condition and process that the apprentices do not question.

3.3. Interaction with customers at the working sites – and how it affects safety

Customer relations and the craftsmen's striving to be service-minded is a common thread throughout the interviews and observations. Good customer relations and personal contact are essential for small companies in order to get new contracts, as they can rarely compete on price as larger companies do.

The owner–manager rarely has great knowledge of the specific work and safety tasks to be solved at the work sites, and he is not present there. Therefore, each employee must find solutions and establish safety on the site under varying conditions in interaction with the customers. The following examples show how the interaction between employee and customers can affect safety priorities.

"There are so many rules in this area now. For example, you are not allowed to stand on ladders and work, so you have to stand on a scaffold etc. Also, you can't lift anymore. There is lifting gear you have to use, but it is not always possible. If you have to bring a toilet up to the third floor, you actually shouldn't carry it, if you are to go by the book. But it's just one toilet! If the customer suddenly realizes that he has to pay 100 Euro extra because we have ordered a lifting device, he won't be happy - it has always something to do with the price and the competition." (Plumber)

In this quote the plumber weighs the customer's needs against safety regulations. The next quote shows how another plumber has to negotiate safety in interaction between the customer and the owner–manager to get the necessary assistance to lift a heavy washing machine.

"I was recently out doing something for a customer, and suddenly the customer thought that I also should move a washing machine, and that it was included in the price. I had no sack truck with me, and I didn't have that much time. So I called the company and my owner-manager said I had to do it, otherwise he was afraid that the customer would probably not pay. Luckily, I got hold of an extra man and we were able to move it carefully."

In another example a plumber states that safety depends on the confidence of the customer:

"Sometimes the customers pour several bottles of drain cleaner chemicals down the drain before they give up and call a plumber. When I ask if they have put something down the drain and if they lie about it. [...] I've gotten burns when I have put my fingers into such a drain, and it is also dangerous for the eyes, e.g. if it splashes up into your face. You can't always trust the customers."

In the field, the employees may see the customers as difficult and with unreasonable demands. They interfere in the work, they have an opinion on how things should be done correctly, and sometimes they refuse to pay the bill if there is a disagreement about the price or quality. In these highly variable and unpredictable work situations, employees do not always think that safety rules, work place assessments and the owner–manager's good intentions are of much help. At the same time, safety is just one of many different concerns that the employee must balance and fit into other things. In addition to safety, time money, workflow, quality, customer satisfaction, and particularly maintaining good working relations and customer relations are essential aspects for the employees. Within this balance, safety is not a standardized, but flexible matter, which they try to prioritize as well as possible. Therefore, safety is not a question of *either-or*, but *more or less*, as the employees may often find solutions which are seldom optimal. *"You can't wear both belt and braces"*, a carpenter explains, and thereby indicates that safety is about finding a proper safety level in a given situation.

The employee's social skills are important, and it is a great part of the job being able to decode the logic of the workplaces, e.g. among private customers it is important to talk nicely and clean up, show consideration and be flexible. Other places, like public institutions, schools, hospitals, etc., it is more important not to be in the way, stay on good terms with the caretaker and adapt the work so it interferes as little as possible, as there are usually other important activities going on. The working day is highly structured around specific issues that the employee cannot decide himself, e.g. when to gain access to the to the worksite (between operations at the hospital, when the kids are not asleep in the kindergarten, when

the residents are at home, when the janitor comes with the key), parking, rush hour and traffic jams, the waste site's opening hours, visits to the wholesaler, the possibility to eat lunch and go to the bathroom, etc. Common for many of the craftsmen's working sites is that they are different from construction sites with standardized safety solutions. Adaptation, creativity and social skills in relation to communicating with the customers and getting the job done easily are crucial for performing the work and establishing safety.

4. Discussion

The analyses of safety comprehension and practice among employees in small companies shows that the employees want to prioritize safety, but at the same time view it as a compromise and a balance between different concerns, which often is a task they have to solve in the specific work situations. The employees continuously transform rules into practice, and do not think that legislation is of great help. In contrast, experiences and emotions are guidelines for conducting the work safely. Safety as experience-based, as situated (context specific) and as an imbedded part of *professionalism is also described by* Gherardi et al. (1998b), Knudsen (2009) and by Grytnes (2014) as '*creating a feeling of security'*. From this understanding safety is not a separate object of knowledge, which employees can easily apply in various situations, but a very context specific practice. Safety knowledge can thus be understood as a social and cultural phenomenon situated in practices, acquired through participation in a community of practice, and continually reproduced and negotiated in interactions (Gherardi and Nicolini, 2000). The implications of this may be that in order to give individuals better tools to translate rules and knowledge into practice, it is necessary to extract the employees' individual knowledge and experiences and make use of it as a basis for knowledge sharing, communication and common learning, taking the specific situations that they work under, into account. This is particularly challenging in that communication in the companies has a different character than to share knowledge and help improve the company, as the standard internal communication is mostly about giving orders or clarifying facts.

In continuation of the difficulties of applying and sharing safety knowledge, the learning of safety within the small companies is also an important issue. This can be understood as learning safety in a '*community of practice*' (Lave and Wenger, 1991), adapting norms, values, and practices by attaining an identity of a skilled craftsman. As we have seen, there is a very limited expectation that young apprentices with new, good safety habits can affect the older and more experienced employees and their practice. At the same time, the older employees do not see themselves as role models who should pass on good habits to the younger employees. This is consistent with both owner–managers' and employees' understanding of safety as something you do in your own way depending on individual mastering. The apprentices sometimes have more knowledge and better safety habits than the older employees. Nevertheless, they are often met with the attitude that they are too independent and too whining, and should be more willing to conform. Gherardi and colleagues use the notion '*situated curriculum*' (1998a) to describe this certain path that everyone has to take to learn and to integrate in the community. There is a lag in relation to change and innovation in small companies where traditions, norms, identities, understandings and practice are inherited through generations.

This leads to the next problem of management in the small companies and the owner–manager's role in safety. Management commitment is often seen as central to safety climate (Zohar, 2010). However, like other studies have shown, safety is often delegated to the employees by the owner–managers (Eakin, 1992). We find

in our study that, e.g. the employees do not see the owner–managers as a supervisor or sparring partner, who can help, but rather as a controlling authority, which they try to deal with and to have as little contact with as possible. The interaction between the owner–manager's planning and decisions and the employees' ability to solve the problem thus complicates safety even further.

As was exemplified in the results section, safety is constantly negotiated in the interactions between owner–managers and employees as part of a struggle of independence, the right to make decisions and to do things one's own way, alongside with negotiations about wages and working conditions, etc. Looking at the small companies from a '*social world perspective*' (Strauss, 1978a) one can understand how safety practice is developed and maintained as part of the ongoing tensions and struggles taking place in the '*social arenas*', where legitimacy and authenticity are negotiated in an ongoing process. This means for example, understandings of good craftsmanship, professional pride, how to be a good employee and colleague, how to be included in the company and to what degree safety is negotiated. In this perspective, safety is a negotiated practice, where many different concerns are balanced, and where the positions within the hierarchy have an influence on who can make decisions. This negotiation of safety occurs not only internally in the companies – but also externally when the small companies interact and compete with other companies in the constructions industry, and when the employees interact with customers on the many different work sites. The owner–manager can ensure personal protective equipment is available, and can prioritize safety issues, but he has no direct influence on safety conditions in e.g. the private homes, where his employees carry out the work. Many different particular concerns are balanced, and the employees need social competences to do this. Implications could be that the owner–manager is aware of this negotiation context (Strauss, 1978b). Future interventions to help improve safety work practices in these kinds of small businesses should thus take into account the limited impact that the owner–manager had on the day-to-day safety practices, as well as the importance of the relationship with the customer.

Carrying out this study has had its challenges and limitations. Firstly, the difficulty in attaining access to small companies and for them to take part in research projects due to short-term planning and limited resources, means that our data material is not a representative sample, but is based on a convenience sample. The difficulty in recruiting also resulted in reduced access to the companies for participant observations. Our conclusions are therefore based on a less extensive material than intended. It is also worth considering whether the participants in the study relate particularly positively to OSH issues. Although they all basically wanted to prioritize safety, and therefore might perform more safely than others, the study points to some general dilemmas and issues that cut across '*good*' and '*bad*' companies.

It is also is worth noting, that the data material is from two relatively large cities in a single country (Denmark). This is of course important to emphasize when one claims that the social and cultural context is of great importance in understanding and identifying solutions for safety issues. While specific characteristics of conditions regarding works settings may be unique to a Danish context, the analytical findings point towards more general conclusions.

5. Conclusions

While previous studies on safety in small companies focused on the owner–managers' priorities, attitudes and practices, the present study described safety practices and the tension between employees, owner–managers and customers in plumbing, masonry and carpentry work sites in the construction industry. From an employee perspective, the general approach towards safety was

positive despite the fact that it rarely had an explicit focus. The employees' understanding of safety can be summarized as "to take care of oneself". This was interpreted to mean bridging the gap between laws, regulations and safety standards on the one hand, and practice in specific work situations on the other. This practice was largely based on feelings, individual experiences and assessments and balancing of different concerns, e.g. workflow, customer satisfaction, good work relations and safety issues. Safety practice in small construction companies was thus situated in a dynamic and changing context in which the employees found ad hoc solutions. The owner–managers provided the overall physical equipment (safety equipment, tools, etc.), but their impact on daily practices was limited, as the employees primarily worked alone and constantly had to negotiate and balance a variety of concerns. Furthermore, safety was generally not a subject of communication, nor perceived as a common responsibility. Overall, safety practice was a negotiated practice established in both internal and external struggles for legitimacy, identity, positions and craftsmanship.

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