A SAFETY CULTURE SHAPED BY COMMON SENSE

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A positive safety culture among construction firms is known to be an invaluable means by which accident prevention and employee safety on sites can be improved. Workers of small construction firms strive to create and maintain safe working environments for each other and for the safety of stakeholders. Based on the organisational and safety cultures developed within small construction firms, the workers have been known to incorporate informal and situational practices in order to improve site and project safety. This paper investigates the safety cultures found in small construction firms including workers' informal practices in relation to hazard identification and accident prevention. The paper is based on a research project that has an overall aim of investigating 'good' safety practices of workers of small construction firms in the East Midlands region of the United Kingdom. In this qualitative research, rich data was acquired through semi-structured interviews and non-participant observations from five construction sites. Findings from the empirical work suggest that owners and experienced workers of small construction firms significantly shape the outcome of the firms' safety cultures. For example, when they show initiative for producing safe working environments, other workers are compelled to follow suit and vice-versa. Furthermore, workers of small construction firms undertake 'informal' practices that help improve safety on site including informal risk assessment and subsequent management of hazardous events. In addition, new and less experienced worker receive effective guidance and vital on-the-job training in a way that is not documented. Unlike much research in the field, this project seeks to identify and encourage activities and approaches that help workers of small construction firms create working attitudes and environments.

Keywords: safety culture, small firm, common sense, informal practice.

INTRODUCTION

The debate on construction health and safety (H&S) approaches: common sense versus bureaucracy has divided academics, industry practitioners and policy makers as different opinions of this spectrum are held (see Lord Young of Graffham, 2010). Small construction businesses in particular tend to adopt a 'common sense' approach to H&S (Vassie et al, 2000). This could be as a result of finding the regulations complex and time consuming. Furthermore, the construction industry (small firms in particular) uses an unorthodox approach to employee development (informal training) and this can easily be confused for 'no training' at all (UK Commission for

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Employment and Skills (UKCES), 2012). The approaches adopted by small construction firms may have come about in response to resource limitations, for example not having specific departments or group of people solely responsible for training new workers as practiced by large firms (Health and Safety Executives (HSE), 2010).

Owners of small construction firms (who often work as site operatives as well) have a considerable amount of influence on the overall culture of the firm: if the owner is very conscious about good H&S practices (i.e. promoting a good safety culture), other workers in the firm tend to follow suit (Hinze, 2004). Furthermore, trust and a supportive environment amongst workers is helpful in developing a safety culture as workers believe they can rely on their colleagues when 'dangerous' situations arise and this also demonstrates workers genuine concern for each other's safety (Conchie and Burns, 2009; Mohamed, 2002).

The aim of this paper is to explore the safety culture of small construction firms and how this culture is influenced by a common sense approach. It utilizes in-depth interviews and non-participant observations. The paper is based on a larger research project which has an overall aim of critically examining the safety practices undertaken by workers of small construction firms in the East Midlands region of the UK, with particular emphasis on 'good' practices i.e. practices that lead to the prevention of accidents on site (see Aboagye-Nimo et al, 2012).This research does not seek to offer a 'best' and prescriptive approach to attaining site safety (as proposed by Choudhry et al, 2008), but instead seeks to highlight effective practices that aid in the prevention of accidents. This paper explores the safety cultures of small construction firms created as a result of the 'common sense approach' and thus sheds light on specific values and beliefs of workers of such firms that lead to accident prevention.

The paper begins with a literature review on safety culture before discussing the research methods and case study findings.

SAFETY CULTURE

Safety culture is a subculture found under the larger umbrella of overall organisational culture. Organisational culture can be explained as a pattern of shared basic assumptions that a group has learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein 2006: 17). There are two broad perspectives of organisational culture, namely: functionalist and interpretive perspectives. The functionalist approaches assume that organisational culture exists as an ideal to which organisations should aspire so that it can, and should be, manipulated to serve corporate interests (Waring, 1996). Interpretive approaches on the other hand, assume that organisational culture is an emergent complex phenomenon of social groupings, serving as the prime medium for all members of an organisation to interpret their collective identity, beliefs and behaviours (ibid). These contrasting perspectives on organisational culture can be used as a framework for appreciating how values, attitudes and beliefs about workplace safety are expressed and how they can influence directions that organisations take in respect of safety culture (Glendon and Stanton 2000: 201).

Researchers define safety culture according to shared values, understandings, belief patterns and expectations of members of organisations (Rousseau, 1990). While

numerous researchers and scholars (such as Berends, 1996; Geller, 1994) offer their versions of the definitions and explanations for safety culture, the underlying message among the definitions is that safety culture is fundamental to organisations' ability to manage safety-related aspects of their operations (Guldenmund, 2000). Geller (1994) explains a good and effective safety culture as a situation, or setting, where everyone feels responsible for safety and pursues it on a daily basis. In contrast, Berends (1996) describes it as the collective mental programming towards safety of a group of organisation members. The definition of safety culture adopted for this research is:

"...the product of individual and group values, attitudes, perceptions, competencies and patterns of behaviour that determine the commitment to, and the style and proficiency of, an organisation's health and safety management. Organisations with a positive safety culture are characterised by communications founded on mutual trust by shared perceptions of the importance of safety and by confidence in the efficacy of preventive measures." (Cooper 2000: 114)

The above definition essentially embodies other explanations of safety culture offered by scholars in the field (see Guldenmund 2000: 228). A concept broadly synonymous with safety culture is safety climate (Denison, 1996). While differences can be identified, both safety culture and safety climate research address a common fundamental phenomenon: the influence of social contexts on safety. Therefore, within this study this conceptual arena is considered in an integrated fashion.

Large construction firms tend to have several management layers, along with several departments and perhaps regional offices, and for this reason a firm ordinarily has formalised policies and procedures to cover its large number of workers (Hinze and Gambatese, 1996). On the other hand, small companies where the owner, superintendent, foreman and lead carpenter are all one in the same person, can likely do fine by following proper safety arrangements even though the arrangements may be informal (ibid). Small firms and projects do not require the types of procedures and practices required by large organisations as long as the firm's operatives incorporate measures that will ensure safe working conditions (HSE, 2010) and this is reflected in the difference in safety cultures. This is to say that small construction firms do not approach safety through formal policies as their often simple organisational structures do not have a top level management style and decisions are usually made by owners together with their workers (Ruben et al, 2008). In order for organisations to have a positive safety culture, the most important element that is needed is successful communication rather than safety policies and procedures (Hartley and Cheyne, 2009). Thus overly demanding and standardized official policies and procedures hinder the formation of a positive safety culture (HSE, 2003).

Changes frequently occur on construction sites, including varying activities and different craftsmen for the different tasks which effectively alters existing cultures (Dainty et al, 2007). In addition, values and assumptions of individuals and teams can also change as such assuming cultures (particularly safety culture) are a stable entity will be inaccurate (Maloney, 2003). Thus safety culture is dynamic.

As highlighted, common sense plays an important role in the safety practices of small construction firms. Unlike the everyday definition of common sense whereby a basic level of practical knowledge and judgement is enough to keep individuals safe (Cambridge Advanced Learner's Dictionary, 2008: 278), it can be agreed that a construction site certainly requires 'a little more' than just the basic level of knowledge for one to be safe. Thus it can be concluded that common sense in the context of a

construction site is different from the everyday meaning and may require some intricate form of knowledge. A novice to construction work may not have a clue about what experienced workers consider as basic knowledge or common sense (Baarts, 2009). Practical knowledge and judgement on site requires knowledge gained through training, experience, guidance by leaders, experiential learning in new situations and learning from individuals considered experts due to their experience in the trade. (Gherardi and Nicolini 2002: 192). Common sense is found in practices such as communication and risk management techniques.

The next section discusses the research methods chosen for this project.

RESEARCH METHODS

Interviews and non-participant observations were carried out on five construction sites - see table 1 for details of sites visited. Projects on the various sites were at different stages. The projects of case studies 2 and 3 were in the early stages while case studies 1 and 4 were about halfway complete. Case study 5 was near completion. Research participants included the owners and the workers of the companies thus helping the research acquire different perspectives on good H&S practices and an overall safety culture for that matter. The different trades and sites included in the study offered a broader understanding of the behaviours and attitudes of workers of different firms.

The two methods employed in the collection of data: semi-structured interviews and non-participant observations, helped acquire rich and in-depth data on the safety culture of workers of small construction firms. Interviews and non-participant observations were carried out on all five construction sites with great care and aim for minimal researcher influence. The non-participant observation method was meant to reveal hidden or unconscious practices that may not have been discovered or mentioned during the interviews, or alternatively practices that cannot be uncovered through the use of tools such as questionnaires. Table 1 below presents a summary of sites included in the case studies.

Table 1: Profile of case studies

	Nature of the project/ work	Activities on site	Trades of respondents	Workers on site
Case study 1	Refurbishment of existing structure	Electrical, plumbing, brickworks, screeding, ceiling works	Builders (carpenters, labourers, skilled labourers)	15
Case study 2	Preparation for new builds	Excavation, roofing, plumbing, building envelopes	Groundworkers	30
Case study 3	New building	Ground preparation, trench digging, foundation, building envelopes,	Brick layers	19
Case study 4	Preparation and laying foundation for new housing community	Clearing ground, reinforcing foundations, building envelopes	Steelworkers/ Groundworkers	15
Case study 5	Completing new building	Pavement and landscaping, external decoration, clean up	Builders, painters, labourers	6

General consents for the sites were obtained from site managers; due to the complexity of site arrangements, seeking individual consents would be problematic

and hence the general consent of managers was found more practical. Small businesses and small sites are known to fall within a category described by the HSE as the 'hard-to-reach' group (Willbourn, 2009) and as such access to research participants were negotiated through gatekeepers trusted by these firms.

Analysis of the data was conducted starting with a thorough thematic coding of the information (transcribed interview data and field notes from observations) with the assistance of QSR NVivo 9. Using qualitative data analysis software helped the researchers with the storage and organisation of their data (i.e. interview transcripts, observation notes, personal comments, relevant literature and personal reflections). Furthermore, this approach facilitated the coding process and helped researchers draw out patterns and refine the research ideas, and hence assisted in efficient data retrieving and handling (King, 2008).

CASE STUDY FINDINGS AND DISCUSSION

This section presents the case study findings on safety culture and the common sense approach from the five sites presented in table 1. As shown in the table, the site activities of the different cases varied considerably. Logically, responses and observations obtained from interviews and observations offered different perspectives with regards to common sense in site safety as well. Common sense was not a probe employed by the researcher in conducting the interviews but emerged as a topic of importance during the data analysis. Respondents used the term 'common sense' freely and frequently when discussing how they managed safety on site. The main themes presented in this section include workers' experience and informal risk identification, employee training and finally the influence of bureaucracy on site safety. The key participants that are presented in the findings and their job roles are as follows: Rick (case study 1- skilled labourer), Mark (case study 1 - labourer), Andy (case study 5 - skilled labourer), George (case study 3 - bricklayer), Scott (case study 3 - owner), Steve (case study 3 - bricklayer), Mickey (case study 4 - groundworker) and John (case study 1 - owner). The above were chosen as key participants for this paper due to their extensive experience in the construction industry, and their views towards the common sense approach to site safety.

Unlike common sense in the everyday context which is regarded as an uncomplicated form of knowledge, workers with extensive site experience believed that spotting certain risks and hazards would be difficult for some workers (particularly new ones). As far as informal risk assessment and experience went, some of the statements recorded included:

"Experience told you they're not safe. Somebody new on site might not see them [the same way]." (Rick)

"...you see things that you need like scaffolding, hand rails missing, you automatically know it's not safe. You'll have to point it out to the lads" (Mark)

Rick is one of the most experienced workers interviewed - over 30 years on site. While he does not point out exactly how experience informs him in relation to what is safe or unsafe, he points out that a newer person on site may not be able to spot the danger. Mark also uses an interesting word 'automatically' to describe the manner in which he ascertains dangers on scaffolds. As Mark clearly states, a newer worker will require some guidance in spotting this danger as they could probably assume the missing handrails are a part of the scaffold design and proceed to use it. Alternatively, a new worker could see this danger and if they are not warned about it, may assume

unnecessary risk taking is acceptable in the group. In other words, teaching new workers how to spot dangers does not eliminate the danger quite yet because a site with a negative safety culture can carry out works on the scaffold with missing handrails and disregard the risk and its potential consequences i.e. falling from a height. Thus teaching new workers to spot dangers is equally as important as teaching them to avoid the situation. Langford et al (2000) explain that when employees believe that the managers and leaders care about the safety of workers, the employees are more willing to cooperate to improve safety performance, thereby yielding a positive safety culture. Unlike the workers with years of experience, none of the relatively new workers on site used the terms 'common sense', 'general knowledge' or referred to any reactions as 'obvious' or 'automatic'. This begs the question: are new workers not aware of common sense? Maybe they are aware of the concept but do not refer to this kind of skill as common sense or general knowledge yet. Also, they may not be making reference to common sense because they are not confident enough to take this kind of knowledge for granted as expressed by the experts. Expert knowledge is the reward of years of concentrated effort (Bartholomew 2008: 21)

While most of the workers with the wealth of experience made similar claims in line with Rick and Mark's statements, a close look at the other responses reveals that not all the workers believe that new workers may not be able to sense the dangers.

"...people should just follow common sense. As you can see, it's all up and down. It's just common sense." (George)

"Everything, everything has got to do with common sense on site. This is what we do, this is how we do it. This is how I like to see this certain job done. That's the way we keep that tidy. If you stick to those guidelines everything will be fine." (Andy)

George and Andy (almost 50 years of experience between them) both discuss what they believe people should know and do. Expecting or assuming people know or understand issues can be extremely dangerous especially when issues of potentially fatal consequences are involved such as construction work (Bartholomew, 2008). The subtle difference between the two responses is that Andy's views are inclusive of some form of training and supervision and this can help him determine how much the new worker knows or understands. Furthermore, Andy clearly states that the new workers must join the culture i.e. 'This is what we do, this is how we do it'. He however does not state 'this is the right way of doing it and for this reason new workers must do it this way'. Therefore a new worker joins this culture regardless of whether their culture makes use of safe methods or otherwise. Andy also mentions that there are guidelines and as such he expects to see activities carried out in this manner something which goes to show that there will be some form of demonstration or display that the newcomer is expected to follow. In contrast, George shows more of a laissez faire leadership and also makes no mention of specific training strategies or guidance. Leaving safety matters to newcomers (without guidance), as suggested by George can result in new workers picking up wrong attitudes and unsafe practices that can eventually lead to the occurrence of accidents to themselves and workmates (Gherardi and Nicolini, 2002).

Interestingly, the above statement from George and other comments such as "…my basic opinion is that health and safety is a load of rubbish but people should just follow common sense" only show that site safety may not be his topmost priority. Also, his views may have been influenced by the views of the company owner (Scott). Scott had the following to say about health and safety on site:

"[health and safety on site] should be general knowledge really… [the workers] know what they're doing anyway"

The owner's views in this situation have clearly influenced a worker (in this case George) confirming the findings of Hinze (2004) who found that owners' views can be reflected in the views of their workers. Furthermore, Scott and George also mentioned that they did not interact with the workers of the other small firms (other subcontractors) on the site. This mentioned behaviour was also confirmed through observation. However, Scott and George's views can also be interpreted as a form of dislike for bodies of authority as health and safety as a concept is regarded by some workers as a bureaucratic initiative established by the HSE. Unexpectedly, not every member of their company shared the owner's views. Steve showed a view similar to that of Rick that even though he refers to something as common sense, he believes training and guidance cannot be excluded. He states:

"...you've got to keep an eye on [the newcomer] until you know he's alright to himself. It's just common sense really." (Steve)

Even though Steve discusses common sense as though it were obvious, his previous statement shows that common sense is not just 'a given' and thus guidance from more experienced workers is required. An interesting phenomenon observed in this group (case study 3) was that even though Scott was the owner of the business, Steve was acting as the leader of the team. He was observed giving instructions on how the team members (including Scott) should look out for truck drivers delivering blocks, because he believed the trucks could slip on the muddy roads and cause an accident. With regards to safety, he was his company's 'moral compass' (Mohamed, 2002). Another opinion Steve did not share with his colleagues was keeping to one's self as he believed that people could learn from workers of other teams on site.

Andy who initially stated that 'everything on site depends on common sense' later stated that he keeps a close watch on the less experienced workers and 'he would never ask them to do something that he was not comfortable doing himself'. This and previous statements allow the following inference to be drawn: even though common sense may be discussed as a basic level of knowledge, experienced workers know that it requires both skill and experience in order for people to be able to execute it efficiently. As such experienced workers monitor new workers until they (experienced workers) are sure of an improvement in the level of expertise of the newcomers. This traditional and yet informal technique of passing on knowledge about the way things are done in a particular setting or in a given culture is known as mentoring (Bartholomew 2008: 119).

Even though the experienced workers were confident of their own knowledge, it was surprising that they all believed in the idea of further training. They actually embraced the idea of further training for experienced workers and explained that such training is always good as it helps keep them alert to new risks and hazards and also keeps them constantly safety conscious. These findings are consistent with the findings of Reynolds et al (2008), which suggests that good and experienced workers admit that further safety training is always important as it enhances their safety awareness and also helps them to stay focused.

As far as contributing aspects of their safety cultures that can be valuable to the wider construction community, the respondents believe that they possess practical knowledge that can be beneficial to the whole construction industry but are hesitant to come forth with their opinions. Simon described voicing your opinion on this matter

as 'committing commercial suicide'. In other words, raising concerns and suggesting safer techniques (contrary to practices of principal/large contractors) can cause the organisation to lose their contract or even become 'blackballed' in their work circles. He recalled making suggestions on safety practices to a site manager on a previous project and that permanently severed his company's ties with the large contractor. Such revelations support recent reports that large contractors use blacklists to exclude certain companies from acquiring contracts (Taylor, 2013). While this may seem like a myth to outsiders, this fear surely exists among workers of small construction firms and during periods of economic downturn, workers consider it 'unwise' to cause one's own demise by 'complaining'. For this reason some workers stated that they would rather stay mute on situations they find unsafe.

Figure 1 summarises this research's analysis of workers' views on the differences in safety approaches adopted by construction companies with respect to their sizes.

Figure 1: Difference between site safety approaches for small and large firms
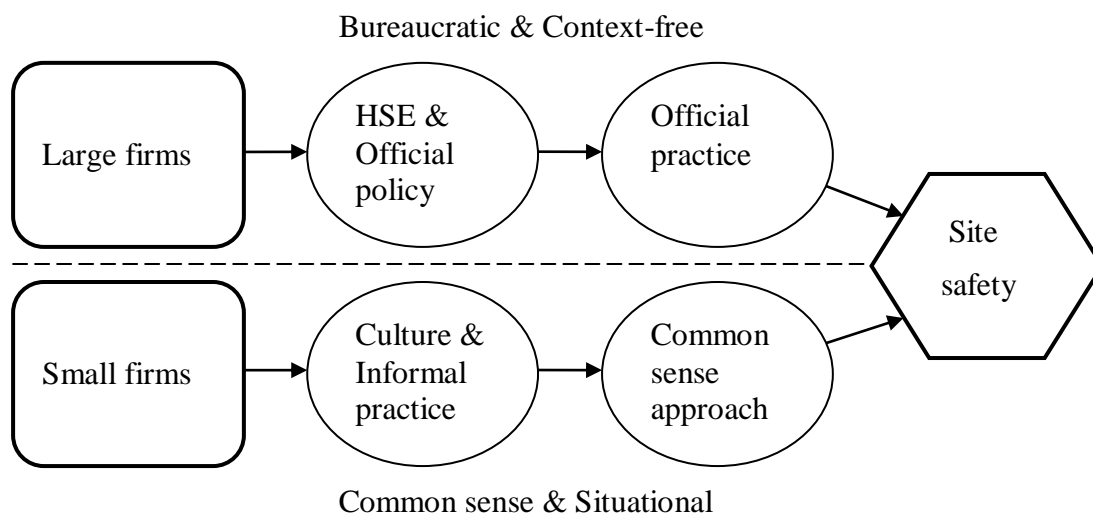
Workers of small construction firms approach safety through their culture and informal practices and this is what is being described as the 'common sense approach'. John explains that the reason why small firms are able to work without the need for formal policies and procedures is because of their small size and their ability to call for informal meetings to discuss implementing different strategies at any time of the project. He also added that he encourages his workers to bring forth their opinions as he believes there is no one way of carrying out tasks. He states:

"You have to be prepared to discuss the right way of doing it [as a leader] and you have to be prepared to say if you don't agree." (John)

However, such debates and discussions cannot be carried out in large firms especially when it comes to decisions made by top level executives as it would be going against company policies that have been strictly reinforced (Hartley and Cheyne, 2009) usually created as abstract and context-free policies. Such policies are also undertaken due to the challenging practicalities of employing and managing a large workforce.

CONCLUSIONS

This paper has presented findings on five small construction firms operating in the East Midlands region of the UK with respect to their safety culture and the common sense approach. Most of the findings from the various sites support discussions found in literature, such as experienced workers believe in implementing informal

techniques in identifying and assessing risks on site, and they also believe that their knowledge and experience in the industry is the basis for this quality. Thus, it can be inferred from this study that experienced workers from small construction firms use the common sense approach to attain a positive safety culture on site. A finding that was not consistent with literature showed another experienced worker had assumed the leadership role in the organisation as the owner was demonstrating less enthusiasm towards a positive safety culture; therefore the experienced worker was acting as the conscience of the group in relation to safety.

This research uncovered that small firms still fear to approach the HSE and large contractors with their safety concerns and this fear may have been worsened by recent economic crisis. Thus workers would rather work under unsafe conditions brought about by 'bureaucratic' measures of contractors rather than complaining as they could lose their present job as well as future contracts.

This paper acknowledges that there are other aspects that influence the outcome of safety cultures including leadership methods, site communication and training approaches and these themes will be explored in subsequent research.

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