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Safety and Volunteer Construction Workers

Abstract

The construction industry is dangerous, with 39 fatalities at work in the UK in 2012/13 and comparable and even larger figures reported worldwide. People also take part in construction on a voluntary basis; most volunteers have limited training and no technical qualification, whilst safety regulation frameworks range from being comparable to professional sectors to zero regulation in some international contexts. Unstructured interviews were undertaken with volunteer construction workers from two areas; those returning from international development projects and those regularly volunteering on UK heritage railways. Taking a social constructionist perspective, data were explored using discourse analysis to illuminate 'safety' within this unique construction 'industry'. Those with engineering or technical backgrounds developed more tangible constructions of safety, around risks and hazards, within their activities, yet volunteers without this experience also acknowledged a wider context of danger. Volunteers on overseas projects developed discourses of 'difference' between safety at home and safety outside of the UK; associated with negative practices overseas yet with acceptance of their inevitability as part of the voluntary experience. Further work is proposed to determine whether these insights can contribute to improved safety management within the voluntary construction context.

Keywords

Developing country, Discourse analysis, Heritage, Railways, Safety, Volunteer.

1 Introduction

The construction industry is recognised to be one of the most dangerous in the world.

Within the UK, although only accounting for only about 5% of the workforce, it reported 31% of all fatal injuries and 10% of all reported major/specified injuries to employees at work within the period 2013/14 (Health and Safety Executive, 2015a). As a consequence the industry has been subject to much research, seeking to support improvements in health and safety management, and reduce incidents and accidents on sites.

Governments, construction companies, industry bodies and various agencies have been involved in driving the health and safety agenda, and both supporting and providing platforms for this research. As a consequence, the vast majority of research has focused on salaried construction workers on commercial projects. However, there are a number of situations in which construction activities are undertaken on a voluntary basis.

People volunteer for a number of reasons including altruism, making a contribution to a community, to improve their own self-esteem, for learning and personal development, for social reasons, or to learn new skills and improve employability (Rhoden et al. 2009). For students, research has found that volunteering has many positive attributes alongside improved employability, '... that it can be fun and scary; it can take students outside their comfort zones, to meet new people and experience challenging situations.' (Holdsworth, 2010: 435)

In the UK there is a substantial voluntary effort in restoring heritage projects, including railways (Rolt, 2010), waterways (Squires, 2007) and buildings, using voluntary and often unskilled labour. Overseas, many volunteers travel to developing countries to participate in the construction of roads, water and sanitation projects (Furber and Crapper 2011) and river bank stabilization (Akter et al. 2012) alongside the members of the local communities.

Such volunteering can involve school or university students on 'gap years', or more mature travellers participating in 'volunteer tourism' (Tomazos and Butler, 2009).

Despite the well recorded hazards and risks surrounding construction work there has been little research carried out into volunteer construction workers and safety. Yet in order to sustain such volunteers' contributions, it is important to guarantee individuals' safety during their voluntary construction work. Accident data for the voluntary sector is difficult to determine, and no firm statements can be made as to the number of incidents per volunteer on an annual basis. This is due to a number of reasons: the fragmentation of the voluntary construction sector, a lack of identification whether work was voluntary or paid within accident data-collection mechanisms and in the cases of those working overseas there is often a lack of formal reporting channels.

This paper presents early findings of a larger project aiming to explore 'safety' within the context of volunteer construction workers. Utilising a social constructionist methodology this project seeks to examine how such workers socially construct safety on their projects, building upon previous studies of salaried workers, conducted using the same methodology (Sherratt *et al* 2012, 2013). Whilst only preliminary findings are presented here, drawing on two 'case study' groups of volunteers, they are able to demonstrate subtle but significant ways that safety is positioned and used by the volunteer workers within the two groups explored, and enable suggestions to be made towards improved practices amongst volunteer safety management.

2 Contexts

2.1 Safety and Volunteering

It has been identified that volunteers often require specialist skills for the tasks they perform (Kilpatrick *et al.* 2010: 196), including those relating to safety management. Yet

for volunteers, formal training in health and safety can be seen as a deterrent to their participation; and 'areas where safety and quality imperatives are present... require a delicate balance between providing necessary training and alienating volunteers (Kilpatrick et al. 2010:205). Issues around formal training for volunteers has been clearly identified within the research on volunteering, as a dilemma emerges '... between increased efficiency and professionalism achieved through structured management systems, versus 'the spirit of volunteering' (Rhoden et al. 2009:20). Volunteers can feel they already have the skills required for their voluntary work, and less formal training is often seen to be more acceptable, as volunteers learn '... on the job or 'as they go' ... in many voluntary organisations (Kilpatrick et al. 2010:201).

However, with regard to safety management, research has found that volunteers approach their voluntary work in a sensitive and responsible way, Newnam and Watson (2011) identifying them as 'pro-social', and as such they seek to align their behaviour to the altruistic identity of the 'volunteer'. In their research of driving behaviours, Newnam and Watson (2011) found that socially responsible perspective of volunteers, as opposed to a task-based or speed of production focus, meant that volunteer drivers were safer than those whose paid work included activities involving driving. As a consequence of this, although there may be potential issues around the formalisation of safety training and assessment, the very nature of the volunteer role may positively influence the approach made towards safety within the voluntary environment.

Within the UK, legislation is also in place to address health and safety management, and this applies to volunteers as well as paid employees. Under common law, volunteers and voluntary organisation have a duty of care to each other and others who may be affected by their activities. With regard to criminal law, the UK enforcing body, the Health and Safety Executive (2015b) clearly states that 'The Health and Safety at Work etc. Act 1974

and the Regulations made under it apply if any organisation, including a voluntary organisation, has at least one employee.’ Legislation also exists for construction work in the UK, and so these construction-specific Regulations also apply to voluntary construction projects.

UK volunteer participation in projects overseas is not subject to UK legislation, but rather the legislation of the country being volunteered in. Although legislation is present in many countries around the world, it can be lacking, especially in the developing countries that host many volunteer projects. According to LaDou (2003), occupational health and safety laws cover only around one tenth of people in developing countries. The recording of accidents and fatalities in such countries is also less rigorous. In their review of global health and safety trends, Hämäläinen et al (2009:127) reported that their calculated fatal accident rates for Africa were based on information for Zimbabwe (figures of 1996) alone, because this was the only country for which all the information needed was available.

However, as should be noted with all legislation, its existence does not necessarily equate to full compliance and implementation. In 2014, the UK Health and Safety Executive’s construction inspectors (2015c) served over 2500 notices, with approximately 1600 of these being immediate prohibition notices. In these latter cases, the violation of health and safety legislation was deemed so serious that work was immediately stopped on the sites served.

2.2 The Case Study Groups

Two areas of voluntary construction are explored here: heritage railways in the UK and civil engineering projects in developing countries. Although there are significant differences between them in many aspects, they both form common examples of voluntary construction in practice.

2.2.1 Heritage Railways

There are over 100 heritage railways in the UK, and taking journeys on them is an increasingly popular activity, indicated by the growing number of passengers they convey (Heath, 2013). UK heritage projects as a whole rely significantly on volunteer labour to maintain and operate them (Rhoden et al. 2009), and heritage railways are no exception. In 2013, 18,528 individuals were recorded as volunteering on heritage railways through the UK (Heritage Railway Association, 2013). Of these, an estimated 1200-1500 are involved with what could be termed voluntary construction work, vital for the safe operation of trains. This involves track maintenance, ditching and vegetation clearance. Occasionally more significant projects are undertaken, for example platform construction or major track relays, which can involve large items of plant (Figure 1).

In addition to national health and safety legislation, the Office of Rail Regulation also further operates as an 'independent safety and economic regulator' (Office of Rail Regulation, 2014) which, following the Railways Act 2005, includes heritage railways (Butcher, 2012). The Office of Rail Regulation addresses health and safety of both the travelling public as well as railway workers (salaried and non-salaried), and ensures that those whose obligation it is to safeguard health and safety on the railways are fulfilling their duties and are otherwise held accountable for any safety shortcomings (ibid).

Heritage railways must also comply with the Railways and Other Guided Transport Systems (Safety) Regulations 2006, again enforced by the Office of Rail Regulation, which specifically defines work and voluntary work throughout, including the need for a Safety Management System, and to ensure that all staff, including volunteers, are adequately trained and possess the necessary skills for the work they are to undertake.

In their research examining the motivation of volunteers on a heritage railway, Rhoden et al (2009:20) suggest that volunteers within heritage tourism projects have been neglected

in terms of academic research. This naturally includes research of their understandings and approach to safety as part of their volunteering role. Although Rhoden et al (2009) did not specifically explore safety within their work, they were able to establish '... a significant association between volunteers' occupational fields (transport and engineering versus service sector and others) and their roles within the heritage railway (including drivers, signalmen and station, track and carriage maintenance)' (ibid, 2009:27). They suggest that these volunteers bring a skill set not found within the wider population, skills vital to the maintenance and operation of rolling stock, track and stations, and some bring skills from the 'steam age'. Such volunteers were also willing to share their skills and knowledge with less experienced volunteers, and enjoy '... using skills to master challenging and possibly novel situations (ibid, 2009:32). This suggests that the heritage railway volunteers are closely aligned in practices to the public railways, and therefore the safety management practices may closely align.

However, this transposition of a professional workforce to the voluntary sector may not be entirely beneficial. Safety research has been carried out for railway operations and maintenance on the public rail industry, and often as a consequence of safety failures and serious railway accidents (c.f. Health and Safety Executive, 2002). Investigations of the Southall and Ladbroke Grove train crashes of 1997 and 1999 respectively, revealed that safety management, specifically safety culture in the industry, required improvement. The resulting 295 recommendations set 'necessary and challenging criteria to change the state of the railways', with a particular focus on 'culture, safety leadership and health and safety management' (Health and Safety Executive, 2005:5). Since these recommendations, the UK rail industry has been privatised, which led to many different franchisees, companies and sub-contractors gaining responsibility for the rail network. Whilst track maintenance has recently reverted to holistic control, separate sub-contractors remain responsible for sections of the public railway industry (Health and Safety Executive 2005).

Other research has focused on specific aspects of rail construction work, for example to ascertain 'why track workers sometimes behave unsafely and what factors could be contributing to a negative safety culture and unsafe behaviour?' (Farrington-Darby et al. 2005:41). This study identified the existence of a positive correlation between safety culture and major accidents on the railway, something also suggested by other work in this sector (c.f. Cooper, 2000; Cullen, 2001), as well as that carried out in the wider construction industry (c.f. Wamuziri, 2008). Indeed, from his work investigating Ladbroke Grove, Cullen (2001) suggests that creating a positive safety culture should be a key strategy for risk prevention and accident reduction, and all individuals within a rail organisation should participate in the process.

With regard to the heritage railway sector specifically, reports investigating specific incidents, including a fatality in 2012 (Rail Accident Investigation Branch, 2011, 2012) have highlighted the need for safety and competence management with a focus on train operations. Corresponding safety initiatives led by the umbrella organization the Heritage Railway Association with the support of the Office of Rail Regulation have continued to include all activities relating to the sector, including asset maintenance and construction.

2.2.2 Volunteer Projects Overseas

As noted by Tomazos and Butler (2009), it is very difficult to say precisely how widespread volunteer tourism is. Indeed, the total number of volunteers participating on construction projects in developing countries is very difficult to formally quantify, due to the fragmented nature of the volunteer tourism industry and the growing number of providers of such experiences. Sources for such data are often commercial so the 'numbers' of volunteers may only be roughly estimated, and it must be kept in mind that these figures are also in part used to entice and reassure potential volunteers, and so may be exaggerated.

However, according to *The Student Times*, quoted by Statečná (2012), 2.5 million young people in the U.K. were planning a gap year in 2012. Such gap years and working on voluntary projects overseas for smaller durations can incorporate many different activities. Although construction is not the most common type of volunteer tourism, construction or renovation projects, including water management projects with the construction of sand dams etc. are still prominent in the offerings of many volunteer project-management organisations (Tomazos and Butler 2009).

Focusing on specific providers, construction-related activities are specifically advertised by some organisations, such as Real Gap Experience (2015), whilst Engineers Without Borders UK (2014) offer a wide variety of construction specific placements to engineering students and graduates to work in developing countries with a variety of aims, such as improving local infrastructure, developing water and electricity delivery systems or supporting local engineering education and knowledge. Indications of scope can be suggested by one established UK voluntary organisation, Voluntary Service Overseas, which states that 1,845 people volunteered abroad with them in 2012 alone (Voluntary Service Overseas, 2013).

In their review of volunteer tourism provision, Tomazos and Butler (2009:208) found that training provision was not an explicit aspect of volunteer tourism providers, and over half of the organisations examined did not clearly offer pre-project training, rather there was the offer of '... pre-departure briefing material after registration.' This is something of a concern given the high risk nature of many construction activities, alongside the potential that legislative controls may not be fully enforced, if they are established within the host country at all.

The aim of such overseas voluntary construction projects is often to work with a local community in a developing country, to help them develop resources or infrastructure to improve their local facilities. This can involve working on construction projects alongside

members of the community, whose main or 'professional' role is primarily farming or fishing, with the help of only a few paid labourers where specific construction skills are required. (Furber et al. 2012) (Figure 2). It is therefore possible that the safety management of such projects can be lacking, given the workforce composition of local people who are not construction specialists and eager students, who have received a minimum of safety training specific to construction work.

Research of health and safety within this context is rare, although a relevant exception can be found in the work of Furber *et al* (2012), exploring the health and safety of community development projects in Ghana. Although Furber *et al* explored the socio-cultural motivation factors behind the participation of local community members in construction projects, the illumination of the number of different pressures to conform to work perceived as hazardous by the participants is highly revealing, and suggests that this context remains the same for those participating on a voluntary basis, although the types of pressures to participate are likely to differ.

3 Methodology

This study builds on similar work previously carried out within the commercial construction sector by Sherratt et al (2012, 2013). This work revealed the potential for a social constructionist approach to reveal safety in a meaningful and relevant way, through the discourses around safety found within large UK construction site environments. For example, the discourses of safety as enforcement and engagement illuminated the conflict between these two approaches commonly made within safety management programmes on such sites, and suggested how practitioners could use these findings to develop more appropriate and effective management interventions within the site context.

Discourses represent shared understandings, developed as people come together through constant social interactions and through shared practices, within their particular communities and specific contexts (Gergen and Gergen, 2003; Burr, 2003). As a result of this, individuals construct their own realities through linguistic exchange, which are in constant flux as they move between social environments. Therefore there is no 'truth', but rather multiple realities and therefore multiple truths (Taylor, 2001). 'Truth' simply becomes the current accepted way of understanding the world (Burr, 2003) within a specific context, and will necessarily be in constant flux (Gergen, 2009) as interactions and contexts change. This approach therefore accepts the notion that different understandings of the world exist, such as those around safety, which can be presented through discourses, and can thus be discovered through the analysis of language formed by different people (Paltridge, 2006).

Due to the relativistic ontology of this social constructionist approach (Gergen, 2009), traditional positivist parameters of academic judgment cannot be applied. Generalisation of these findings is not possible (Lincoln and Guba, 1985) and there can be no generation of theory, instead the validity of the work can be found through its 'fit' with the experiences and understandings of those who work within such contexts (Burr, 2003), and its reliability judged through explication of the analysis, exemplars of which are included within the next section to illuminate and reveal the process in detail. Concerns around errors of interviewing technique, such as researcher bias, are also challenged by this approach. Bias becomes unavoidable and therefore accepted; as there is no quest for truth, the objective processes of the traditional interview can be set aside (Potter and Mulkay, 2007) and the interviewer becomes an integral part of the process.

For this project, this social constructionist approach does not claim to 'tell the truth', rather it seeks to 'tell the truths' of a specific context; the truths of safety within volunteer

construction work, as the volunteers generated their accepted and agreed versions of 'safety' within the different case study contexts.

3.1 Sample and Data

Initially, a purposeful sample of convenience was taken, due to the timescales of the project, and the exploratory nature of the work. Two 'case study' groups of volunteers were identified that were highly accessible to the researchers; heritage railway volunteers and students returned from voluntary projects overseas. Three heritage railways in the UK were visited and 13 volunteers interviewed in total across these three sites. Following initial identification through the purposive sample, the overseas project volunteers were sought through a snowball process (Walliman, 2006:79), which resulted in seven volunteers from two voluntary organisations and four different projects. All projects were construction based but differed in length, number of volunteers and location: two rural towns, one in South Asia (1 volunteer) and one in East Africa (1 volunteer), and a house construction project in Eastern Europe (5 volunteers, although they visited the project in different years). The intention behind two 'case study' groups was not to carry out a direct comparison between them, but rather to explore similarities and differences between them in terms of their discourses of safety.

Whilst naturally occurring data would arguably be most valid for this study, the practicalities and ethical issues of its collection were deemed prohibitive. Consequently, unstructured interviews, or conversations (Potter and Hepburn, 2005), were employed in settings convenient and comfortable to the participants, including informal café settings and on railway platforms. Following an initial introduction to the project, the conversations were entirely participant led and no formal questions were asked, the interviewer only interjecting to ensure safety remained the topic of conversation and to ensure the conversation itself continued. The conversations were digitally recorded and transcribed as

'verbatim with dialect' (Gibbs, 2007:14). The transcripts used the common notation of R for respondent and I for interviewer.

3.2 Method of Analysis

The interview transcripts were uploaded to NVivo 10 for management and coding (Bernard and Ryan, 2010; Creswell, 2013). Coding was used as a precursor to analysis rather than analysis itself, and was the preparatory process for organisation of the data into manageable sections (Gibbs, 2007). A process of discourse analysis was then undertaken, however this does not have a fixed set of analytic strategies to be followed in sequence; rather the researcher draws on the theoretical framework established by the methodology, through which textual data can be explored (Tonkiss, 2004).

The approach is interpretive (Wetherell et al. 2001); repeated passes made of the data from various perspectives. Different patterns were sought (Taylor, 2001), including elements of variability, consistency and inconsistency, function, construction, representations and other themes that could be identified and developed (Potter and Wetherell, 1992). From such patterns, discourses emerge, reflecting the way people talk about safety, how they construct and position it within their own experiences, and revealing their shared understandings of safety within a particular context.

Analysis was undertaken within both case study groups and between them, although not in a comparative way. Rather, discourses were explored and examined with regard to their specificity within a particular context, or indeed shared similarities across the groups. The effectiveness of this process can be judged from its explication, and the skill of the researcher in illuminating the emergence of the discourses from the data.

4 Analysis and Discussion

Previous social constructionist work around safety has established some dominant discourses drawn upon by participants with regard to safety in their commercial construction work, including the associations of safety with practice, safety with Personal Protective Equipment (PPE) and safety invoked as a tool of enforcement or engagement (Sherratt et al. 2012, 2013). Whilst these discourses also emerged during the analysis carried out for this study, alternative discourses were also drawn upon by the participants that were unique to their voluntary construct context. It is these unique findings which are presented in detail here, drawing on representative extracts from the conversations to illustrate the analysis undertaken and how these discourses were formed and shaped by the data.

4.1 Safety from experience

Constructions of safety within the data were found to closely associate with the individual volunteers' own experiences and backgrounds. Those with engineering or technical backgrounds developed more tangible constructions of safety, around risks and hazards within their activities, yet volunteers without this knowledge also acknowledged the wider context of danger although without recourse to formal safety management practices. This discourse of 'safety from experience' was drawn upon by both sets of volunteers.

Within the overseas project data, the discourse manifested from two alternative perspectives; consideration of the individual's own safety knowledge and comparable consideration with the knowledge of others. This can be seen in the extract below:

R: ... sometimes it's argue to, it's hard to argue with them if you can't hammer a nail properly, that you should be doing something in a safe way.

I: if the volunteers can't.. yeah,

R: as a volunteer, you're very much in, in, well they are responsible for you, they have the kind of position of power and authority.

Here, the speaker is happy to make a judgement from their own understanding of what is a 'safe way', yet he does not position his own knowledge as able to challenge that of the 'professional' as constructed here, i.e. the person with the manual skills to 'hammer a nail properly'. This is an interesting shift from management taking the lead on safety; here professional safety is assigned to those physically carrying out the work, suggesting that, within this context, 'professional safety' is not restricted by the usual hierarchical constraints found on sites.

Here, the speaker draws on the discourse of safety from experience to position himself in a passive place, in which he abstains from safety responsibilities by following the lead of the local workers. This is a recurring aspect of the discourse amongst the volunteer data, in which the knowledge and experience of the local workers supports 'unsafe' working practices, and thus volunteers abstain from safety responsibilities. The majority of volunteers in these projects are relatively young, many of them students, which may have considerable influence on this discursive development.

A further consideration can be identified in the way in which some volunteers position unsafe practices as negative to their own environments, whilst others draw on the discourse of safety from experience to justify and validate unsafe working practices in this context, due to the value ascribed to the locals' knowledge and experience. An example can be seen in the extract below:

R: It would be that the way they do construction in, in ((country)) I think is, in general a bit more cutting corners

I: OK

R: *and they don't have the health and safety kind of restrictions and legislation we have here. Therefore these people who'd, some of them have worked for construction companies before had got used to these kind of*

I: *Yeah*

R: *ways that didn't have the proper health and safety.*

I: *OK.*

Again, the speaker has created a construction of safety from experience, with referenced to people who have worked for 'construction companies'. This experience is set within a context of difference, where the lack of safety management and legislative frameworks and practices are used as justification for improper health and safety practice. The speaker identifies these experienced workers as 'used to' the way they perform work, which in turn diminishes their own individual responsibilities for safety, which has been shifted to this wider context, 'the way they do construction in...'

Specific aspects of safety practice were also justified by the discourse of safety from experience, as seen in the extract below:

R: *Um so, and um I, I think it was a trouble with the ((nationality)) community not want-, yes they don't, didn't want to wear any of the safety material*

I: *Yeah*

R: *Umm and they're used to working manually all the time, so they didn't see it as an issue.*

I: *OK*

R: *And then the workers from the charity umm they're, they haven't done any studies but they have been working in construction for a while.*

I: OK

R: *So um they're, I mean they do know how to do construction work and they didn't really want to wear health and safety um gear because, I presume that they were taught by other people who had the same idea and it just keeps going.*

Here, the speaker is drawing on the common discourse of 'safety as Personal Protective Equipment' (PPE) to further illustrate his construction of safety. Two types of experienced people are invoked, the first workers are local and 'used to working manually all the time...', positioned as the reason for their lack of PPE. That this previous work may have been carried out without the benefit of PPE, a likely situation given the context of the volunteer placement, is not considered by the speaker. The second workers are considered 'experienced' for two reasons, they are labelled as working for 'the charity', the managers of the project, but also that they have been '... working in construction for a while.' The speaker develops the position of safety from experience for these workers through both associations; their position within the site team and their experience. The speaker then justifies the lack of PPE as a lack in education which is then perpetuated within this context. Within this extract, the discourse of safety from experience is used to contextualise something the speaker considers incorrect in terms of safety management, 'trouble' about the use of PPE on their project site, illustrating the potential dominance and influence of this discourse within a voluntary construction context.

Within the volunteer projects overseas, the discourse of safety from experience illuminates the power relationships in operation; although the local workers may not seek such responsibility, the speakers readily assign their own fate, despite the fact that they also ascribe the professional local workers with negative considerations of safety. Through the discourse of safety from experience, the volunteers are able to remove themselves from responsibility for their own safety and that of others, positioning themselves as 'other' and

therefore lacking in knowledge of both industry practices and the wider national context of their placement country. This discourse therefore is closely linked to that of 'safety as different', which is examined in detail in the next section.

Safety from experience was the dominant discourse identified in the heritage railway data. Associated with this master discourse were constructs of the skills and knowledge (or lack thereof) that the individual volunteers brought to the railways from their professional backgrounds, as well as the way volunteers' professional backgrounds influence the 'roles' they are consequently allocated. An example of the former can be seen in the extract below:

R: So, so that - we developed all that stuff ourselves. But I was just saying before then because I'm an operations manager in the aerospace industry, I'm –

I: Yeah

R: I've, I've - this stuff's no bother to me ... I use my skills I've got and I transfer it across to the railway

The speaker here creates a direct association between his professional role in the aerospace industry and the work he carries out as a volunteer on the heritage railway, safety becoming an objective, mobile 'entity' which can be transferred from one industry to the other. In contrast to the previous text from the overseas volunteers, there is a strong ownership of safety, the speaker personalising his involvement in safety and, along with others, taking responsibility for its management.

The experiential status of the volunteer construction workforce was also illustrated in the extract below:

R: ...and, I mean when you get talking to them all like, they are all retired but you.. a lot of them have been professionals or you know, so qualif-, you know they will have qualified in different fields

I: Yeah

R: They are not just a volunteer. I'll put it that way, you know

I: Yeah

R: But they, they just happen to want to do this as a hobby really.

Here, the speaker constructs two different volunteers; 'just volunteers' and 'professionals'.

The latter are attributed with qualifications, and despite recognition that these qualifications may be from many 'different fields' this is still used as justification to elevate their status. Within this context, different professions were evaluated by the volunteers, and approval given for occupations that were seen as relevant to heritage railway work.

Although the status of the 'professional' was also seen to cloud this relevance and volunteers were inclined to transfer safety from a working environment they knew well and to whose safety practices they are accustomed to the heritage railway context. Yet this wholesale construction of 'mobile' safety contains inherent risks and flaws since every industry possesses its own particular set of risk and hazards, which is why, for example, the HSE provides separate health and safety guidance for different industries in the UK.

The volunteers are potentially constructing an assumed reality of safety on heritage railways closely associated with their previous experiences, which is not necessarily consistent nor appropriate to the reality of railway practice. Indeed, within the texts, the volunteers also developed a minor discourse of 'safety as different' between heritage railways, which affirms the necessity for differential safety requirements between organisations of the same industry, let alone between different industries. There is a need

for volunteers to acknowledge differences in safety practice between their own constructions and reality, and adjust accordingly. However if such differences are not acknowledged then, incongruously, it is possible that 'unsafe' behaviour occurs from those who are professionally knowledgeable about safety.

Safety from experience was also drawn upon to influence the way roles were assigned within the heritage railway teams, as illustrated in the extract below:

R: uh ((name)) is the expert

I: OK

R: on the switches

I: so for everything someone - I mean how, how has everyone got their knowledge on this? Or was it just through –

R: ((name)), ((name)) with eh, eh ((acronym of freight operating company))

I: O hhh

R: ((full name of freight operating company)), ((name)) was in charge

The above evolved from a question posed about who decides what and how things are to be done on the railway. The speaker responds through the identification of an individual, and draws on the discourse of safety from experience to justify his attribution of 'expert' due to his previous experience. As suggested as likely by Rhoden et al (2009) the named volunteer was previously employed within the rail industry, which has created a new facet of the discourse within this particular context; that of the 'expert' rather than simply the 'experienced'. Safety has again been constructed in a way that allows it to be readily transferred, in this case between the public railway and the voluntary heritage railway. Through such associations, the speaker diminishes the existence of a difference in working

practices and safety between the paid public railway and the voluntary heritage railway, and strengthens the justification behind the discourse.

Another volunteer specifically addressed safety within the extract below:

R: I think there's – there's also some issues round – round – it's - you know it's really back to the point we were making about someone being in charge of health and safety here

I: Mhmm

R: Only it's not quite as formal as that it's eh – eh – it's beyond looking out for one another, it's how within a group which doesn't have an authority structure, ((Volunteer 6)), you've met ((Volunteer6)), eh, ((Volunteer6))'s our leader right? Because ((Volunteer6)) actually knows which end of a spanner to use, so he has a kind of has legitimate authority. Uhm uhm, when ((Volunteer6))'s not here –

I: Yeah

R: we kind of muddle along and we'd maybe look towards ((Volunteer1)) –

I: Yeah

R: because he has an engineering background in that kind of thing and ehm but um we've never spoken as a group about whether one of us ... would be the leader

This conversation around the structure of safety management was developed by the speaker himself, constructing safety around authority and structure, or more specifically the lack of structure. The speaker justifies the allocation of safety management responsibility to an individual based on their skills, despite the fact that these skills are related to technical rather than safety competence. The speaker then draws further on the discourse of safety from experience, and professional experience is again used to justify the

substitution of safety management. Responsibility for safety management is constructed as fluid, yet there are constraints linked to professional safety emerge informally as required, and result in the allocation of roles on the railway.

Throughout the heritage railway data, individuals constructed a close association between roles and past experiences, professional or otherwise, reaffirming a transferable construct of safety, potentially generating a management structure which is the product of transferred knowledge from other industries. However, such constructions also enable many of the volunteers to abstain from safety responsibilities themselves, assigning this charge to those with relevant employment histories or professional backgrounds. Such abstention from responsibility is justified through the knowledge they presume others to have, often accepted on the individuals own cognisance. Potentially, such constructions are detrimental to safety in practice, both the shifting of responsibility for safety away from a holistic approach and its reliance on perceived rather than actual competence and knowledge within the volunteer workforce.

4.2 Safety as 'Different' Overseas

The master discourse identifiable in the overseas voluntary data was that of 'safety as different'. The titling of this discourse may be problematic, however difference is not between the case study groups, or UK and overseas construction workers. The discourse of Safety as 'different' overseas emerged from the overseas UK volunteers, through their constructed understandings and comparisons of safety during the volunteer projects and safety within the UK context.

The volunteers constructed this difference in a variety of ways and at a variety of social levels; on both a personal level, often drawing on examples of incidents that had been witnessed, and on a national level, the latter often used to 'culturally' justify the unsafe actions of the local workers. This difference was juxtaposed with the volunteer's own

understandings and experiences of safety in the UK through either their education or professional backgrounds, as the volunteer below illustrates:

R: Well we, well we wanted to, to do it a different way. 'Cause we, we have a bit of experience, a few of us knew that this was not how things should've been done. It's just the people, the construction workers with us were used to cutting corners, taking those kind of risks.

I: Mhh.. That's interesting

R: And there's kind of a, there's a pressure on you then to take those risks.

I: OK

R: So we kind of mentioned it to them and they were like "You know, this is how we have to do it". Eventually don't want to lose time from working by having to argue with them or... especially if they speak a limited amount of English.

In this extract the respondent constructs safety through the discourse of safety as different.

An example of when the speaker wanted to go about a task in a different way to that in which it was being performed is drawn upon to illustrate the difference to their own understandings. Yet the speaker is willing to justify and accept this difference as inherent in the context in which they have been placed. The workers are more 'used' to unsafety than the speaker, although he does not blame or consider them responsible for this lack of safety, rather they are working in the same construction contexts of time and pressure as the speaker, which are used to justify the lack of ability for either workers or volunteers to develop safety within this context.

Safety as different is constructed as a fixed entity; the volunteers positioned it as an unchangeable context that was perpetuated by the local workforce, themselves unwilling to change, either in their actions or their own considerations of safety. The resolution of

the speaker that this was "how we have to do it" is further justified by language issues, notably as a lack on the part of the workers and not the volunteer, despite the non-English speaking country in which the work is being carried out.

Throughout the text, the speaker refers to himself in the plural 'we', bringing others into his understandings, but also enabling the avoidance of personal responsibility. This is found throughout the text, as although the speaker has positioned himself at the centre of the discourse, he does not want to associate himself with the unsafe practices taking place, the lack of action in terms of change, or the lack of ability to overcome any issues.

This develops notions of resolution, associated with the different context and its inflexible nature, and resulted in the volunteer's discourse of safety as different developing a facet of 'acceptance', as shown in the continuing talk of the same volunteer:

R: maybe they were fine with them but then when it came to volunteers like us, we might not have been as used to them.

Here, the speaker is further developing discussions around 'cutting corners' as common practice, but interestingly positions himself, identified as a volunteer, as 'not ... used to them'. Again, the speaker is resolved to the context in which he as a volunteer is being placed, constructing himself as 'other' to this environment.

In this extract the respondent constructs safety through the discourse of safety as different, the speaker ascribing this difference to global location as compared to his home country.

Yet the speaker is willing to justify and accept this difference as inherent in the local context. The speaker positions the workers as more 'used' to unsafety, developing a relationship with the discourse of professional safety as previously identified. Here the professional workers have been negatively influenced by their profession, and the speaker ascribes this to the practices of their industry, 'cutting corners', rather than the

construction workers themselves, developing a complex discourse of 'professional safety as different' within this overseas context. The speaker positions himself as other to this profession, and within the company of others, referring to himself in the plural 'we', which also enables the avoidance of personal responsibility.

This can be found throughout the texts; although the speakers often position themselves at the centre of the discourse, they do not want to associate with the unsafe practices taking place, the lack of action in terms of change, or the lack of ability to overcome any issues. Rather, as found here, the speaker is resolved to the context in which he as a volunteer is being placed, constructing himself as 'other' to this environment and simply 'not ... used to them'.

Another example can be seen in the extract below:

R: But the workers that are hired by the charity did not really respect health and safety and to be honest, I don't think ((country)) has the, that much of a policy on health and safety. Maybe in big sites but not smaller sites and it's not really that applied. Umm and we were trying like, we tried to talk with the charity workers and convince them to, just even for a simple, they had some sort of gloves on when they were mixing concrete. Uh but they weren't wearing masks or anything. And if the people from the village would help them out, they would mix concrete with their bare hands. Ahh and because I spoke ((native language)), I kept asking them to just stay away from mixing

I1: Yeah

R: the concrete if, 'cause they, they wouldn't, they didn't want to put gloves on and they didn't want to stay away. I kept, we didn't manage them, to convince them not to do that.

Here, the speaker constructs safety as different with reference to the lack of formal legislative and management practices. He also readily draws on a discourse of professional safety to position the charity workers as the professionals within this context, separating them from the local workers. Using an example of practice, and drawing on the highly illustrative discourse of safety as PPE, the speaker constructs frustration with the lack of safety management within this work context and the practices being carried out. The volunteer considers himself amongst others with these concerns by the use of 'we' throughout the discourse except where the use of language necessitates his own individual intervention. Yet in the failure of this attempt to improve safety on the project, the speaker again reverts to the plural, constructing this event as a 'them' and 'us', the volunteers seeking to change the common practices. Yet despite the speaker's ascribed efforts, safety remained constructed as different within this particular context.

The discourse of PPE as an enabler of the discourse of safety as different could be found throughout the data. A further example can be seen in the extract below:

I: And did you wear PPE?

R: Ehm, yes we did.

I: But, like all the time?

R: Yeah, we wore, well I made sure before we went, that everyone had the boots and the gloves and the eye gear, as well. There was never anyone working above us

I: OK

R: so we never, we didn't have to wear our hard hats.

I: OK, OK

R: *But, I know that's not right but still you look, it's one of these things you where, you looking like an idiot if you're the only one that's wearing a hard hats and everyone else there..*

Here, the speaker is constructing a specific reality around the discourse of safety as different. Whilst PPE within the UK context necessitates the use of hard hats, the speaker's own experience of PPE within the voluntary context was different. Initially, the speaker justifies this through the work context itself, '... never anyone working above us.', however this is then further developed with reference to safety as different, and the lack of PPE use on the overseas projects. By constructing himself as '... looking like an idiot ...' for wearing PPE that would be considered correct in the UK, the speaker draws on notions of conformity and its associated pressures, and again the potential influence of the discourse of safety as different can be seen.

Safety as Different was identifiable throughout the overseas volunteers' talk. It often originated at a general level around the safety standards of the host country, juxtaposed with UK safety practices to highlight difference, and then developed more personal levels. Speakers often considered their own participation within this different context and throughout the texts an inevitability of negative safety practice was constructed; in some cases volunteers positioned their own safety compliance to these contextual levels, and a resolution that this context was unable to be changed could be identified as an inherent part of this master discourse.

In consciously possessing such safety knowledge, the volunteers are effectively revealing themselves to be in a position of safety conscientiousness, which is arguably tied to responsibility. The implication to practice therefore, is that they should try and ensure safe working practices are implemented, or at least improved to the safety standards with which they are comfortable. However, as the above analysis illustrates, although some

volunteers considered change, the majority stripped themselves of these responsibilities by normalising the 'unsafe' ways of work, or even submitting themselves to these. In doing so the volunteers are effectively transferring all (safety) responsibilities to the local workers, with potential repercussions for their own safety and others participating in the work. The volunteers constructed a context in which safety is dependent on the environment in which it is being carried out, or more specifically dependent on the way people 'belonging' to that environment construct safety, which in turn determines the safety environment.

5 Conclusions

In exploring the discourses of safety within these two areas of voluntary construction, the two most dominant discourses, those of 'safety from experience' and 'safety as different', were identified. The discourse of safety from experience emerged within both case study environments, although associated with different constructions and applications. Within the heritage railway sector, safety from experience created a mobile and transferrable safety. This was drawn from individuals' previous professional experience in a wide variety of sectors, which was constructed as applicable and harmonious with railway construction work. Although this created a strong personal associations with safety in this context, the suitability of such direct application from very different industrial environments or public rail networks with a 'poor safety culture' can be challenged. An alternative aspect of this discourse was also present, drawing on others' knowledge and competence to shift responsibility for safety from individuals, despite a lack of evidence for the relevance of that knowledge to the context of the heritage railway. This has several implications for management practice in the heritage railway sector: allocation of safety to roles with those with 'experience' should explore the relevance of that experience, whilst the readiness to shift responsibility by some volunteers could further exacerbate poor practices of

allocation. Furthermore, management should also be aware of the potential for complacency that a dominant discourse of 'safety from experience' also implies.

Within the overseas volunteering sector, safety from experience was again used to shift responsibility and ownership to those with professional credibility within the work context, and was often associated with a lack of professional knowledge, perceived or real, on the part of the volunteers. Safety from experience was also linked to the discourse of 'safety as different overseas', through which the justification of working within unsafe environments was developed through its inevitability and inability for change. The role of power relations developed from the discourse of safety from experience was influential in the resignation of the volunteers to this unsafe context. This has implications with regard to the safety of the overseas volunteers and their ability to challenge and change safety on their voluntary projects. This is cause for concern, given the number of participants in such overseas schemes and their potential exposure to health and safety risks. It is suggested that voluntary organisations seek to develop and enhance their training for volunteers sent overseas, to enable them to gain confidence to challenge poor practices, and also to ensure their own representatives are also aware of the risks involved in construction work and the repercussions of poor safety practice.

Whilst less prominent discourses were identified within the texts, similar to those which have previously been identified from research undertaken in the professional construction sector, for example 'safety as PPE', the two master discourses developed here reveal issues significant and exclusive to voluntary construction sector. The considerations of safety from experience, the responsibility and ownership of safety, and the resignation to poor safe practices identified within this context have the potential to impact the safety of those participating in such voluntary ventures. It is suggested that these findings support the need for further work in this field, to develop improved insights, and potentially contribute

to appropriate management of safety in voluntary construction contexts, relative to practice in the commercial construction industry.

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