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Engagement of micro, small and medium-sized enterprises in occupational safety and health: "Project know-how"

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Engagement of micro, small and medium-sized enterprises in occupational safety and health: "Project know-how"

Final report for the Institution of Occupational Safety and Health

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ABSTRACT

Despite the fact micro businesses and small and medium-sized enterprises (SMEs) comprise the vast majority of companies in the United Kingdom, comparatively little is known about how such organisations approach occupational safety and health (OSH). This study therefore investigated: the perceptions of OSH in SMEs and micros; their sources of OSH knowledge and how they use this knowledge in practice; the enablers and barriers to accessing and applying OSH knowledge in SMEs and micros; and how OSH knowledge and practices in SMEs and micros compare with those in larger organisations. These issues were explored using a mixed-methods approach comprising 149 structured interviews and nine short-term ethnographies with owners and employees in smaller organisations from a range of industry sectors, including logistics, agriculture and retail. We also undertook 21 semi-structured interviews with owners and employees in the construction and healthcare sectors. This approach provided a balance between breadth and depth of insights into how and why owners and employees of SMEs and micros: learn, modify and communicate their knowledge about OSH in the workplace; and enact, or put into practice, their knowledge of OSH and the contextual factors that influence this.

In contrast to many previous studies, this study paints a more positive picture of OSH in smaller organisations: many participants viewed OSH as the responsible thing to do, an intrinsic part of their work and a key aspect of operating their business. SMEs and micros use a wide variety of formal and informal sources of OSH information, often in combination with each other. Tacit ways of knowing, drawing heavily on common sense and experience, were particularly important and trusted sources of knowledge. There was evidence to suggest that SMEs and micros benefit greatly from the OSH knowledge that owners and employees carry with them from previous jobs, including those with larger organisations. Larger organisations also play a role in encouraging SMEs and micros to take on board new OSH information, usually as a requirement of being able to do business with them as part of a supply chain or network. The desire for reassurance and peace of mind was another important motive for seeking new OSH knowledge in SMEs and micros, however there were also a number of barriers to acquiring new knowledge, not least the perception that information is in a language tailored for OSH specialists in larger organisations, rather than for non-specialists in smaller organisations.

A key insight from this study is that many workers in small and micro enterprises do not see OSH as something that is 'owned' by their organisation - instead OSH is seen as an intrinsic part of their personal job and a key part of being a responsible practitioner. Participants enact OSH knowledge through their everyday actions or routines - working practices that make sense to the people that use them and are deemed, by them, to be safe in the specific context that they are being used, even though they might not be considered to be compliant by OSH practitioners. Personal, tacit ways of knowing should not be assumed to be incompatible with formalised OSH - the challenge for OSH practitioners and legislators is to acknowledge this and understand the ways that they are complimentary and the ways that they are not. Acknowledging the myriad ways that workers already do their work safely may provide scope for applied interventions other than merely seeking to make OSH better through more comprehensive or tighter regulations, for instance by helping SMEs and micros to direct their judgements, responses, and adaptations towards safety outcomes. Although there is clearly a need for formally codified OSH guidance (especially in high-risk work contexts) there is also a need to acknowledge the diverse ecology of knowing and practicing-OSH that characterise the workplace in smaller organisations.

EXECUTIVE SUMMARY

Objectives and approach

Comparatively little is known about how micro enterprises and small and medium-sized enterprises (SMEs) approach occupational safety and health (OSH) in the workplace, despite the fact that they comprise the majority of businesses in the United Kingdom. Although there is an increasing amount of literature on the subject, the body of empirical evidence is still relatively small and spread thinly across a wide range of sectors and geographical locations. Most studies of OSH in smaller firms have tended to examine the issue from the perspective of business owners, rather than employees, and there is very little overlap between the OSH literature and the literature on growth and learning in SMEs and micros.

Our objectives in this study were therefore to:

1. Investigate the perceptions of OSH in SMEs and micros in the UK;

2. Determine the sources of OSH knowledge in SMEs and micros;

3. Identify the enablers and barriers to accessing and applying OSH knowledge in SMEs and micros;

4. Examine how OSH knowledge is applied in practice in SMEs and micros; and

5. Compare OSH knowledge and practices in SMEs and micros with those in larger organisations.

We adopted a mixed-methods approach comprising 149 structured interviews and nine short-term ethnographies with owners and employees in smaller organisations from a range of industry sectors, including logistics, agriculture and retail. We also undertook 21 semi-structured interviews with owners and employees in the construction and healthcare sectors. This inductive, qualitative approach to data collection provided a balance between breadth and depth of insights and enabled us to compare our findings with those from our recently completed IOSH funded study into OSH knowledge in larger, networked organisations (Gibb et al., forthcoming). It also allowed us to foreground the views of employees as well as those of business owners.

Key insights

Sources of OSH knowledge

- **Tacit sources** of OSH knowledge – common sense, experience and learning by doing – were by far the most frequently cited sources in our study. However, these ways of knowing were often not easily articulated by participants because of their routine and taken-for-granted status.

- People also reported **carrying knowledge with them** from their previous jobs, and then adapting and using that knowledge in their current role. In many cases those previous jobs were with larger organisations, suggesting an indirect 'trickle down' of OSH knowledge from larger to smaller organisations.

- There was no clear association between size of organisation and internal sources of knowledge; in other words, learning from sources within an organisation was very much context specific, depending on both the culture of the organisation and the type of work being undertaken.

- Owners and employees in SMEs and micros obtained their OSH knowledge from a diverse range of sources external to their organisations, including professional relationships, regulators, educators and intermediaries.

- Clients were a common source of OSH knowledge for SMEs and micros, particularly in the construction and logistics sectors where sole traders and micro businesses form part of the supply-chains of larger organisations, who in turn influence how those smaller businesses go about their work.

- However, where very small organisations worked directly for members of the public, the client (often the home-owner) was unlikely to have enough knowledge and expertise sufficient to provide any direction on OSH.

- Informal networks of peers and industry contacts were also a source of OSH knowledge for SMEs and micros. Networks may be created through online and digital-electronic media where proximity (or closeness) to others, especially for independent workers, is virtual rather than physical.

Channels for communicating OSH knowledge

- SMEs and micros received OSH knowledge through a combination of formal and informal channels, with formal training being the most frequently mentioned method through which smaller organisations received new OSH knowledge.

- Face-to-face verbal communication was the most commonly used channel for sharing OSH information within SMEs and micros. The verbal communication that took place was both formal, for instance through briefings and meetings, and informal though ad hoc or impromptu conversations with work colleagues.

- There were some noticeable differences in the channels of communication used by different sizes of organisations, with micro organisations relying more on informal face-to-face verbal communication and SMEs using multiple channels, with more of an emphasis on formal written communication.

- In SMEs OSH information tended to be cascaded down through the organisation, however information was also transmitted up the organisational hierarchy – from employees to managers and owners, for instance when reporting problems or suggesting improvements to working practices.

Enablers and barriers to acquiring new OSH knowledge

- For some people, the desire for new OSH knowledge was about seeking reassurance that they are compliant and to indemnify themselves. This was either because they were inexperienced or due to some external change, such as the introduction of new legislation or equipment.

- In some SMEs and micros, awareness of the wider regulatory and legislative environment was peripheral to their work, whereas for others it was more central. Such differences in levels of awareness were influenced by the type of work undertaken and the personal interest of the individuals concerned.

- Clients or customers can also create a need for new OSH knowledge, particularly when clients are larger organisations that have specific OSH requirements. In some cases clients can be very prescriptive about the way in which their subcontractors acquire new information.

- The most frequently mentioned barrier to acquiring new OSH knowledge was that the person in question had no perceived need for it, either because they felt that their working practices were already safe or that they had sufficient OSH knowledge, based on their experience and years spent in the job.

- Some business owners felt that they were already subject to too many rules and regulations and that further OSH information would simply be an unnecessary burden, particularly since such businesses are often 'time-poor'.

- The nature and lack of accessibility of the information available to SMEs and micros can be a barrier to seeking and acquiring new OSH knowledge – there was a perception that information is often tailored for OSH specialists in larger organisations, rather than for non-specialists in smaller organisations.

- Some participants expressed a view that OSH information did not 'flow' to them like other forms of information relevant to their businesses – the wider regulatory and legislative context was something that they had to seek out.

Reasons for working healthily and safely

- At an individual level, a fear of being hurt or injured was the most frequently cited motive for taking OSH seriously in the workplace. This was a particularly important issue for sole traders and smaller micro organisations, for whom being unable to work would mean lost income.

- Peoples' desire to work in a healthy and safe manner was also motivated by concerns for the wellbeing of others - colleagues, employees, customers or members of the public. Indeed, for some people, the fear of hurting or injuring someone else was their primary motive for healthy and safe working. This was particularly strong in very small organisations where the workers had close, often familial, relationships.

- Concern for OSH was partly about the fear of being prosecuted or sued but was also about peoples' pride in their work and a genuine desire to operate professionally and responsibly – not just a legal duty of care, but a moral responsibility to do the right thing.

- Clients and customers were also seen to be an important driver behind healthy and safe working practices in smaller companies - smaller organisations are required to take OSH seriously if they want to work on larger contracts.

- Legislation and regulations were mentioned frequently as a driver for healthy and safe working, although this obviously raises the question of whether companies are trying to stay safe or just trying to stay compliant (particularly in cases where regulations are backed up by audits and inspections).

- There was a sense that OSH had become increasingly legislated and many people had mixed views about the regulations affecting their work, which in some cases were said to be draconian, restrictive and impractical.

- Employing people was considered to be an important internal driver of OSH in SMEs and micros, primarily because of the legal obligations of being an employer, but also because of the sense of responsibility that employing people brings with it.

- The employer/employee relationship in SMEs and micros was not always clear-cut, which can create a grey area when it comes to peoples' legal and ethical responsibilities, and ownership of OSH. It can lead to small business owners abdicating responsibility for people that are, in essence, acting as their employees.

Approaches to enacting OSH kowledge

- Gathering information about one's working environment, and the people around, was a common form of enactment – assessing risks and being aware of and thinking about what you are doing when carrying out a job. Such enactments were often seen to be intuitive - a function of common sense and experience.

- Our work has also identified the strong link between the worker and their environment, largely through 'bodily sensation' - e.g. 'feeling' how best to lift an unusual heavy object or recognising when to take a break from reading signs of tension in their own bodies.

- Working healthily and safely was also seen to be about sharing information with other people, usually by talking to them or conveying information in writing. Sharing OSH information verbally was found to be more difficult in situations where people are disconnected temporally or geographically.

- Some micro business owners believed that their colleagues were experienced enough not to need telling how to do something whilst others felt that they could not force people to do something, particularly when the person concerned was not an employee.

- The most frequently cited way of staying safe was to follow rules or procedures - indeed, people not following rules and procedures was seen to be a barrier to healthy and safe working. In some cases these rules and procedures were unwritten and had been developed and adopted over time.

- Participants also made reference to actions that they undertook or avoided doing in order to remain safe in the workplace. For some people this was how they were expected to work by their employer, for others it was how they had chosen to work based on their personal experience or fear of being held liable.

Enablers and barriers to OSH

- At an individual level, participants in our research stressed the importance of common sense and experience as enablers of healthy and safe working – being able to use their own skills and personal judgement to determine when something is safe or unsafe.

- Personal protective equipment (PPE) was a commonly mentioned enabler, although some participants suggested that they used their personal judgement about when to use PPE, by being mindful of the task in front of them and the most appropriate protective equipment required to complete that task safely.

- Formal processes and procedures were seen to be important enablers of healthy and safe working, particularly in larger SMEs but also in smaller organisations in more highly regulated sectors, such as healthcare, and higher risk industries, such as mining and agriculture.

- Other organisational enablers of healthy and safe working were good communication, good working relationships, and staff engagement; indeed, a distinguishing characteristic of SMEs and micros was the ability for workers to make suggestions not only to co-workers but also to management.

- Attitudes and behaviours were seen to be the main barriers to OSH in smaller organisations. People pinpointed behaviours such as cutting corners, rushing jobs, not following procedures and not wearing personal protective equipment.

- The working environment was the most frequently mentioned barrier to OSH, particularly for workers that are 'out in the field' and have less control over their working environment. In these contexts the ability of workers to adapt and improvise towards safety is perhaps especially heightened.

Triggers for changing OSH practices

- Incidents and near misses were the most commonly mentioned reason for changing OSH practices in smaller businesses, however in some cases the reasons were more subtle and proactive – not necessarily a specific incident or near miss, rather a progressive realisation that a particular practice is not working, or creating identifiable risks.

- Changes to working practices in SMEs and micros were also triggered by external factors, particularly client requirements and new legislation or regulations, because then the businesses concerned would have no choice but to take action.

- Participants described how safe working, at times, required that they improvise or adapt their practice to changing features of the workplace and/or work scenarios. They developed, through experiential learning, practices that enabled them to do their work in quicker, easier, simpler and potentially safer ways.

Comparing practices in smaller and larger organisations

- In contrast to workers in larger companies, workers in SMEs and micros found it less easy to separate OSH from their individual responsibility and jurisdiction. OSH converges through and becomes 'internal' to practitioners themselves and is expressed through their everyday routines and working practices.

- OSH practices in SMEs and micros are (more often) located at the individual rather than the organisational level, and are bound up with a broader notion of 'taking care' of oneself and/or (what could be characterised as) being a 'responsible', 'committed', and 'competent' practitioner.

- Significantly, in SMEs and micros - and especially with self-employed and freelance workers - activities and practices from settings beyond the workplace were understood to inform safe and healthy working practices. Safe working is enacted through a more holistic sense of the individual practitioner.

- Certain kinds of organisational structure and dynamic were found to have implications for OSH practice in SMEs and micros. Operating either literally or figuratively to a 'family' model facilitated desired modes of communication that would result in effective OSH knowledge transfer and acquisition.

- These dynamics were thought to facilitate a greater sense of responsibility amongst workers of caring for and supporting each other in a way that was perceived different from larger organisations, because workers in smaller companies 'know' each other in more personal, subtle, and empathetic ways.

- SMEs and micro enterprises were seen to operate through a more personalised management style where managers were not distanced from workers, but were involved, approachable, and open to worker-driven suggestions.

- However, owners and/or managers also emphasised that these dynamics, while desirable and having positive influences on ensuring the OSH of workers, could also sometimes be difficult to reconcile with other aspects of their role: particularly disciplinary procedures and/or enforcing company regulations.

- In comparison with their counterparts in larger companies, who are more likely to employ specialists with a specific responsibility for disseminating OSH information to employees, workers in SMEs and micros did not always find it easy to identify specific sources of OSH information.

- Often participants in SMEs and micros attributed their OSH knowledge to common sense and experience, much more so than participants in larger companies, who often have access to more formal sources of information with their organisations.

- The use of certain external sources of OSH information appeared to be more pronounced in SMEs and micros, particularly clients and customers, suppliers and manufacturers, and OSH consultants. The latter were seen to be a cost-effective way of 'buying-in' knowledge and ensuring compliance.

- In our previous research a range of communication channels were used within large companies to formally disseminate OSH information, and this was reiterated in SMEs and micros that used textual, visual, electronic-digital and verbal methods.

- As in larger organisations, mobile phones played a key role in facilitating communication at SME and micro sites where workers (including field technicians, removals workers and agricultural workers) undertook their duties away from an organisational base.

- While in some SME and micros there may have not been access to other forms of electronic-digital communication used in larger organisations, it was evident that mobile smart phones were prominent for enabling effective communication to facilitate 'feedback' in real-time of any safety or task specific issues.

- Networks played an important role in OSH practice in SMEs and micros, by facilitating information transfer (particularly through word of mouth), providing necessary infrastructure for safe working, and enabling practitioners to make decisions about who they do (or do not) work for.

- Unlike large organisations, networks were not always formalised or already in existence; they were often informal and, though they might be, they were not necessarily task and/or project-specific, as they tended to be in larger organisations – they were perceived to develop more incrementally and indirectly.

OSH practices and size of organisation

- Our data suggests that the idea of a tipping point in OSH practices, as organisations grow in size, is overly simplistic and it may be better to envisage a series of relatively small, but still significant, changes in orientation between micros and larger networked organisations.

- This progression should certainly not be read as a smooth continuum as it is clear that progress along it tends to be very 'lumpy', with different triggers occurring at different stages and having different effects depending on the industry sector or task type.

- There was a noticeable inflexion between sole traders and micros - perhaps the biggest change of all. There then appeared to be a change between small micro and large micro, around the five employee mark; we are therefore suggesting the use of the term 'nano enterprise' to describe these smaller micros.

- The prevalence of formal procedures and processes does seem to increase with the size of the enterprise, although not necessarily in a linear fashion. There was also much less of difference between larger mediums and large organisations that we have studied previously (Gibb et al, forthcoming).

Trickle-down of knowledge

- It was evident from our research that SMEs and micros do learn about OSH from larger organisations, both formally and informally, in a number of sectors, including construction. This tended to occur in situations where SMEs and micros subcontract to larger organisations, often as part of a supply-chain.

- There were a number of factors that were seen to facilitate trickle down, in particular culture and processes. Larger contractors also used monitoring and supervision to verify that messages were getting through to SMEs and micros within their supply networks, a potential issue in construction where contractors may work with larger contractors sporadically.

- Some SMEs and micros actively chose to work with *"good"* larger companies within networks because they felt safer doing so. However, not all SMEs and micros chose to work with larger organisations, because they found the rules too restrictive – this is clearly a significant barrier to trickle down.

- The trickle down process is dependent on the 'pushing of information by the larger company and the 'pulling' of information by the smaller company - if one or both of these actions do not occur, then effective trickle down of OSH information is unlikely to occur.

Comparisions with previous studies

- Previous studies have found that SMEs and micros lack information, knowledge and awareness of legislative requirements or regulations, a finding that was not borne out here: many owners and managers perceived legislation and regulations to be an important driver for working healthily and safely.

- However, there were some indications of difficulties in accessing some of the OSH guidance as, for instance, the HSE has significantly reduced the amount of guidance on its website and some other sites are on a pay-per-view basis.

- Previous studies found that OSH inspectors were an important source of information, but in our study they were mentioned infrequently. SMEs and micros drew upon a wide variety of other sources – both formal and informal, and internal and external – often in combination with each other.

- In many respects the existing literature paints a very negative picture of OSH in SME and micro organisations, with previous studies finding a lack of management commitment, a lack of employee engagement and confusion about employee and management responsibilities in smaller organisations.

- However, these issues were not evident in the organisations that we engaged with. Whilst we acknowledge potential bias in our sampling frame with OSH-friendly individuals being more likely to

engage with our study, we would still argue that this previous negative picture is not wholly accurate. For example, in our study:

- o The close-knit nature of many SMEs and micros meant that owners seemed to feel a sense of responsibility for the health and wellbeing of their employees and similarly employees understood their responsibilities, even if they were not always formalised in writing, because they were an intrinsic part of their work.

- o Moreover, although some owners and managers were keen to stress the importance of their employees being responsible for their own OSH, this was less about abdicating responsibility and more about getting employees to buy-into OSH, rather than imposing it on them.

- Confusion over OSH responsibilities was more pronounced in situations where sole traders or freelancers were working together on behalf of a client or individually as part of a small or micro business – in other words, where the employer/employee relationship did not exist on paper, but aspects of that relationship remained.

- Our research also highlighted how SMEs and micros have developed working practices that, in some cases, might not be in line with formal recognised practice, but nevertheless appear to be safe within the context that they are being applied.

- Knowing how to work in healthy and safe ways is generated from the interaction between people and the specific social, material, sensory, affective, and regulatory contingencies of the workplace environments through which practitioners undertake practical activity.

- For workers, these 'other' ways of knowing become part of the everyday enactments that they perform their work safely, and the making of 'safe improvisations' is how they adapt to the varied workplace environments that they encounter. Such practices have received little attention in the literature on SMEs and micros and, where they have done, have tended to be viewed as risky and dangerous.

- Another new insight from our research concerned the home as a workplace:

- o Work in the worker's own home - the routines, habits, and techniques that workers in smaller organisations use to demarcate work from home-life in order to create desired affective experiences and that maintain good mental and physical wellbeing.

- o Work in others' homes – the additional steps that workers take to protect the home, sometimes increasing the risk to their own health or safety.

Implications for practice

- Both the ethnographic and non-ethnographic aspects of this research have highlighted that there is far more to enacting good, effective OSH than mere compliance – even if the rules were the best and most appropriate rules that could be.

- It is important to reiterate that personal, tacit ways of knowing should not be assumed to be antagonistic to formalised OSH, but that it is more productive to acknowledge and seek to better understand the ways that these become complimentary and the ways that they do not.

- Our research has illustrated how workers in small companies skilfully blended diverse ways of knowing; thus in most cases performing their work in general compliance with regulated OSH yet attuning their practice to the contingencies of varied workplace scenarios and environments.

- We suggest that the challenge for OSH practitioners and legislators is to recognise the bringing together of different ways of knowing and doing OSH (including both the regulated and the tacit), and then to design ways to better support workers in this complex process.

- This should include helping workers to make judgements, responses, and adaptations towards safety outcomes. While we do not deny that there is a clear need for formally codified OSH-guidance (especially in high-risk work contexts) there is also a need to acknowledge the diverse ecology of knowing and practicing-OSH that characterise the workplace. There is a place for 'nudging' workers towards safer and healthier practice.

- Acknowledging the myriad ways that workers *already* do their work safely may provide scope for applied interventions and offer an alternative route towards safety than only seeking to understand how OSH could be made better through more comprehensive or tighter regulations.

- Empirical insights on how people learn, share, and use OSH-knowledge may be used to identify effective practice, while also understanding the reasons behind gaps between formalised OSH and everyday practice. In doing so, practical interventions associated with training, communicating, and regulating safe working may be developed.

ACKNOWLEDGEMENTS

CONTENTS

1 INTRODUCTION

1.1 Scope and objectives

This report is based on a two year study of how micro, small and medium-sized enterprises[1] in the United Kingdom (UK) engage in occupational safety and health (OSH). The study was funded by the Institution of Occupational Safety and Health (IOSH) and undertaken by a multi-disciplinary team of researchers at Loughborough University. This project formed part of the IOSH research programme Health and Safety in a Changing World.

Comparatively little is known about how micro enterprises and small and medium-sized enterprises (SMEs) approach OSH in the workplace, despite growing interest in the issue over the last two decades and the fact that such organisations comprise the vast majority of businesses in the UK (Federation of Small Businesses (FSB), 2014). Given the paucity of research on the subject, this study sought to:

1. Investigate the perceptions of OSH in SMEs and micros in the UK;

2. Determine the sources of OSH knowledge in SMEs and micros;

3. Identify the enablers and barriers to accessing and applying OSH knowledge in SMEs and micros;

4. Examine how OSH knowledge is applied in practice in SMEs and micros; and

5. Compare OSH knowledge and practices in SMEs and micros with those in larger organisations.

Objective 5 involved comparing the findings from this research with those from our recently completed IOSH funded study into *Occupational Safety and Health in Networked Organisations* (Gibb et al., forthcoming), which focused on OSH knowledge in large, networked organisations.

1.2 Report structure

This report comprises five main sections:

- **Section 1** introduces the report and the research project.

- **Section 2** explains in greater detail how we interpret the terms SME and micro, and provides a review of previous research into OSH in smaller organisations[2].

- **Section 3** explains the research strategy that we employed in this study, our approaches to sampling individuals and organisations, and our methods of collecting and analysing data.

- **Section 4** presents the findings of our research with respect to each of the objectives

- **Section 5** discusses our findings and compares them with results of previous studies of OSH in smaller organisations.

- **Section 6** discusses the conclusions and recommendations arising from our research, and the implications of our findings for policy makers, OSH practitioners and smaller organisations.

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[1] Section 2 provides a more in-depth discussion of the criteria used for categorising organisations (Micro >10 employees; Small >20; Medium >250).
[2] The term 'smaller organisations' is used in this report to refer to SMEs AND micro enterprises.

2 BACKGROUND AND CONTEXT

2.1 Categorising smaller enterprises

There is no universal definition of what constitutes an SME or micro enterprise, with categorisations varying from country to country. Within the European Union (EU), micro, small and medium sized enterprises are classified as organisations employing less than 10, 50 and 250 people, respectively (Table 2.1). The enterprise must also be autonomous, in other words it cannot have 25 percent or more of its voting rights directly or indirectly controlled by one or more public bodies (European Commission, 2003). Although the EU also uses financial turnover and annual balance sheet to categorise organisations (Table 2.1), staff headcount is undoubtedly the most widely used criterion. Sole traders are, as they sound, individuals who work alone but may well contract their services to other organisations.

Table 2.1: Definitions of Medium, Small and Micro Enterprises (Adapted from the European Commission 2003, p.14)

Enterprise category	Headcount (annual work unit)[3]	Annual turnover	Annual balance sheet total
Medium	<250	≤€50 million	≤€43 million
Small	<50	≤€10 million	≤€10 million
Micro	<10	≤€2 million	≤€2 million

SMEs and micros can be anything from an independent corner shop to a nationally operating business. However, as illustrated in Figure 2.1, it is difficult to consider SMEs and micros as a homogeneous group (Hillary, 2000; Merritt, 1998), nor are they simply scaled-down versions of larger organisations (Storey, 1986). The SME and micro sector is highly dynamic and there are considerable differences in rates of development of smaller firms across regions and sectors (Anderson et al., 2010; Keeble, 1997; Wright et al., 2007). SMEs and micros play a key role in the UK economy and provide private sector employment either through self-employment or through further job creation (Ward and Rhodes, 2014). In 2014 *"small firms accounted for 99.3 per cent of all private sector businesses in the UK, 47.8 per cent of private sector employment and 33.2 per cent of private sector turnover"* (FSB, 2014).

The concept of owner-management usually forms the basis of most definitions of smaller companies, although it can be useful to distinguish between 'owner-managed' and 'owner-manager' (Table 2.2). The former describes a situation where the owner takes on several roles within the company and will often not seek specialist advice unless there is an inherent need, in which case the advice will often be supplied through an external consultant who may have no pre-existing relationship with the firm (Lansdown et al., 2007). The term 'owner-manager', on the other hand, may refer to a franchisee, where the owner may have access to resources, guidance and management practices from a larger company[4].

Owner-manager may also refer to a subcontractor working within a larger project network. Eakin et al. (2010) also used the term 'owner-operator', a theme common in construction as workers often use own their own tools or equipment. However, this term may also be applicable in other sectors such as healthcare or logistics, for example where physiotherapists own their own equipment or drivers own their own vehicles.

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[3] The composition of staff headcount is also important, for example, part-time and seasonal workers may be considered in headcount, but those on internships or student placement may not.

[4] Such larger companies and the flow of OSH knowledge are covered in our recently completed IOSH-funded study into *Occupational Safety and Health in Networked Organisations* (Gibb et al., forthcoming). However, this report includes SMEs and micros that work within such larger networks.

Table 2.2: Differentiating between owner-managed, owner-manager and owner-operator

Owner-managed	Enterprise tends to be independent – the owner has several roles
Owner-manager	Franchisee or subcontractor with access to a larger company resources and guidance.
Owner-operator	Micro enterprise or sole trader who owns their own plant or equipment.

A detailed study of the unlicensed 'cowboy' micro and sole trader sector is outside the scope of this research, but their significant presence is beyond doubt. Brace et al (2009, p.15) found that there was a desire in the construction sector for *"some form of certification of building companies to 'outlaw the cowboys'. Something similar to the 'Corgi' registration scheme (now the Gas Safe Register) was suggested, along with a campaign aimed at householders to show the health and safety dangers of cowboy builders as well as the more popularised poor workmanship and dubious dealings."*

SMEs and micros tend to be influenced by the environment in which they are operating (Baldock et al., 2006; Barrett and Rainnie, 2002) and dominated internally by the interests and goals of owner-managers (Marlow, 2005). Owner-managers frequently retain preferences for informal and individualised practices (Hoque and Noon, 2004; Mallett and Wapshott, 2014). Managers in SMEs and micros tend to have good personal networks and relationships to gather information (Lipparini and Sobrero, 1994); however they often do not perceive the need for formalised structures to manage performance (Hussein et al., 1998; McAdam, 2000; Hudson et al, 2001). For many owner-managers, the business is an extension of themselves - their ego, personality, motives and desires - and as a result the decision making process is often influenced by the will to maintain their lifestyle rather than growing or improving the business (Banfield et al., 1996).

The literature suggests that smaller firms tend to behave in a reactive manner: the level of strategic planning is often poor and decision-making processes are not usually formalised (Laverty, 2004; McAdam, 2000; O'Regan and Ghobadian, 2004; Smith and Smith, 2007). Ates et al. (2013) argue that reactive behaviour, coupled with an absence of dedicated resources, leaves managers in smaller firms simultaneously juggling multiple short and long-term priorities. Therefore, setting aside time to devote to strategic long-term activities often gets pushed aside when "urgent" day-to-day operational issues and customer needs take hold (Ates et al., 2013; Jennings and Beaver, 1997) - this is a particular problem for sole traders and micro enterprises. Firms will tend to adopt more formal policies as they grow (Atkinson et al., 2014; Phelps et al., 2007), however some authors argue that flexibility, responsiveness, opportunity creation and risk taking are key characteristics of smaller organisations (Levy and Powell, 1998; Aloulou and Fayolle, 2005) and this can be an advantage, as having unstructured systems and processes means they can respond to change quickly.

Figure 2.1 summarises the typical characteristics of SMEs and micro enterprises as found in the literature. We consider however that these are not absolute characteristics but rather tendencies. Those to the right of the figure tend to be more typical of small and micro enterprises, hence the ">>", and the characteristics on the left are more typical of medium-sized enterprises. We have noticed that much of the literature tends to polarise the characteristics and nature of larger and smaller firms, whereas we would argue for a more nuanced understanding of the differences and looking at SMEs and micros as a heterogeneous spectrum of unique enterprises. Other factors such as industry sector, owner background, growth potential and the nature of the enterprise's main tasks may be more of an influence than organisation size.

2.2   Company growth

In recent years there has been increasing interest in understanding how and why smaller organisations grow (Barringer et al., 2005; Davidsson et al., 2000; Delmar et al., 2003; Hansen and Hamilton, 2011; Moreno and Casillas, 2008; Storey, 2011; Wiklund et al., 2009). The growth of firms has been studied from different

perspectives (each with distinct ontological and epistemological assumptions), including economics, entrepreneurship, strategic management and the resource-based view of the firm (Barbero et al., 2011; Wiklund et al., 2009). However, despite the abundance of such work, the literature on the growth of smaller firms remains 'highly fragmented' (Wiklund, 1997; Wiklund et al., 2009) and there is no cohesive theoretical framework for studying the growth of firms (Barbero et al. (2011). The growth of smaller organisations remains an area deficient in theory and in which most major questions remain unanswered (Leitch et al., 2010).
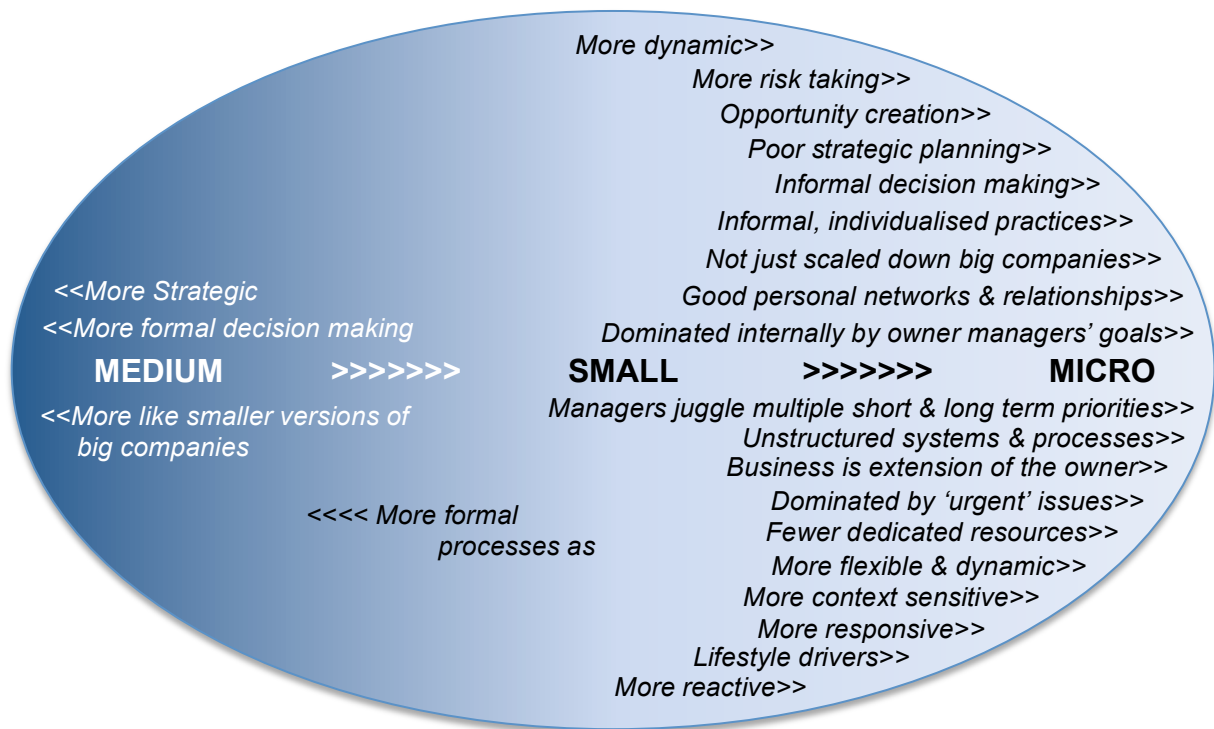
Figure 2.1: Common characteristics of SMEs and micros (derived from literature)

Before smaller firms can start the growth journey they have to overcome the problems of survival and the liability of newness, which can be challenging for many entrepreneurs (Geroski, 1995): the mortality or failure rate among newly formed firms is very high (Bates, 1989, 1990; Meyer, 1990; Holtz-Eakin et al., 1994; Fairlie, 1999; Timmons and Spinelli, 2003). Smaller firms have to overcome various constraints that stem from their smallness in relation to other market participants, for example: information asymmetries and high transaction costs can result in credit rationing for smaller firms and hence a lack of resources (Stiglitz and Weiss, 1981; Greenwald, Weiss and Stiglitz, 1984; Vogel and Adams, 1997). Scholars therefore argue that smaller firms need effective planning in order to increase the chances of business survival (Hisrich and Peters, 1998; Stokes, 2002; Ghobadian et al., 2008; Karlsson and Honig, 2009).

Based on a review of previous research, Balmero et al. (2011) identified a number of capabilities that affect the growth of firms, including:

- Human resource capabilities – the formalisation of a firm's human resource functions, such as personnel selection (Harrison and Taylor, 1997), the establishment of performance incentives (Oliver and Anderson, 1995; Zenger, 1992) and training of personnel (Barringer et al., 2005).

- Organisational capabilities (Chan et al., 2006; Hay, 1992; Zook and Allen, 1999) - including professionalised management systems (Miller and Toulouse, 1986), formalising organisational structure, the development of processes and technical capabilities to support growth (Chaganti et al., 2002; Golann, 2006).

- Marketing capabilities - identified as being most important in the early stages of firm growth, and were required to allow the firm to adapt to current and future needs of clients and establish a suitable marketplace (Feeser and Willard, 1990). This requires the adequate management of a salesforce (Wijewardena and Cooray, 1995).

- Financial capabilities - required to ensure growth rates are sustainable (Covin and Slevin, 1989). The availability of, and access to, financial resources is a key determinant of growth (Cooper et al., 1994; Hamilton, 2011; McMahon and Davis, 1994).

The growth path of smaller firms tends to be episodic, involving a small number of growth spells that involve high growth levels (Hamilton, 2012). Hamilton (2012) found that consecutive years of growth were achievable and that smaller firms would grow with more continuity than larger firms. Older and larger firms tend to exhibit lower growth rates due to having less of a growth imperative, and their expansion is more likely to involve mergers and acquisitions (Davidsson et al., 2006). Hansen and Hamilton (2011) found that growth firms[5] were more adaptable, proactive and innovative, seeing opportunities in declining and uncertain markets, particularly towards international market opportunities. These firms also were more strategic and explicit in their desires to have successful (and growing) businesses with higher levels of training and development and their owner managers were more optimistic and ambitious. Owner-manager motivation has a strong bearing on growth (Chaganti et al. 2002; Fuller-Love, 2006) and the growth of a business can be related to its owner's aspiration to expand (Wiklund and Shepherd, 2003). However, owners' motivations can also place limits on growth (Dalley and Hamilton, 2000; McMahon, 2001; Wiklund et al., 2003). Furthermore, as enterprises grow their relationship with and responsibilities under the law change; for example, in the UK micro enterprises with less than five employees do not need to have a written OSH policy[6].

2.3   Knowledge and learning

Scholars have linked the growth of smaller firms with their ability to absorb and accumulate the knowledge necessary for the next growth phase (Phelps et al., 2007; Thorpe et al., 2005). However, it is important to distinguish between that which is known (knowledge) and the process by which knowledge is generated (learning). In broad terms, learning occurs when concepts, frameworks and capabilities are created or re-developed in the light of knowledge new to the individual learner (Chell, 2001). Learning is embedded in everyday practices in particular social, cultural and historical contexts (Hamilton, 2011). Learning within smaller firms has to take account of the environment in which they operate. Senge (1995) points out that the ethos and organisation of smaller firms can both foster and impede learning, even where a firm is seeking individual improvement and collective innovation (Harrison and Leitch, 2005).

Literature suggests that, in smaller organisations knowledge is mainly gained through experience, and it is often absorbed by means of tacit learning (Chaston et al., 2001; Honig, 2001; Ward, 2004). Thorpe et al. (2005) argue that this is usually in relation to a specific individual most notably the entrepreneur or owner-manager of the firm. However, the lack of "codified knowledge" can create difficulties in transferring know-how quickly (Eriksen and Mikkelsen, 1996, p.68) and it is suggested that smaller firms can have problems moving from tacit to explicit knowledge (Darby and Zucker, 2003; Chaston et al., 2001; Honig, 2001). Reychav and Weisberg (2009) highlight the importance of knowledge sharing in smaller firms - particularly between the firm and its customers - although arguably this could also be between the owner-manager and employees.

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[5] Companies with higher than average rates of growth
[6] www.hse.gov.uk/toolbox/managing/writing.htm

Several previous researchers have argued that entrepreneurs learn by doing, making mistakes, and reflecting on their experiences (Gibb, 1997; Deakins and Freel, 1998; Cope and Watts, 2000). Entrepreneurial learning theory has established that disruptive experiences during the entrepreneurial process, such as non-routine events, significant changes to the business and economic shock, can stimulate distinctive forms of higher-level learning (and knowledge accumulation) that prove fundamental to the entrepreneur in both personal and business terms[7] (Cope 2003; Deakins and Freel, 1998; Minniti and Bygrave, 2001). These experiences, and the subsequent learning that take place in changing business environments, seem to consist of social interactions where the entrepreneur encounters opportunities and/or problems (Reuber and Fischer, 1993; Rae, 2000; Taylor and Thorpe, 2004). Different experiences enable entrepreneurs to engage in relationships from which they can learn; thus, a "learn as you go" approach has been observed (Gelderen et al., 2007). Gibb (1997, p.19) suggests that this environment involves *"learning from peers; learning from doing; learning from feedback from customers and suppliers; learning from copying; learning from experiment; learning by problem solving and opportunity taking; and learning from making mistakes."*

2.4   OSH in SMEs and micros

The existing body of knowledge on OSH in SMEs and micros is very diverse (see Appendix A), with previous empirical studies varying in terms of:

- Geographical setting – studies have studied a range of different countries, including the UK, Canada, Denmark, Sweden, Australia and the United States, amongst others. Some studies have focused nationally, others locally within a city or region.

- Research strategy – researchers have employed a range of research methods, from large-scale questionnaire surveys for collecting mainly quantitative data from large numbers of organisations and individuals (e.g. Vickers et al., 2005; Parker et al., 2007) through to more in-depth qualitative studies involving interviews, focus groups and participant observation with smaller numbers of people and organisations (e.g. Eakin, 1992; Holmes *et al.*, 2000).

- Industry sector – while some studies have adopted a multi-sector approach, others have focused on individual sectors, most notably construction and manufacturing (e.g. Champoux and Brun, 2003; Corr Willbourn, 2009).

- Areas of interest – some studies have adopted a broad view of OSH in smaller organisations (e.g. Eakin, 1992; Corr Willbourn, 2009), encompassing a range of themes and issues, others have focused on specific themes or issues, such as levels of knowledge and awareness, compliance with legislation, causes of accidents, management practices and the impact of interventions (e.g. Bradshaw, 2001; James et al., 2004; Hasle et al., 2010).

- Stakeholder perspective – while some researchers have adopted a multiple stakeholder perspective on OSH in smaller organisations (e.g. Holmes and Gifford, 1997; Fairman and Yapp, 2004), the majority of studies have looked at the issue from the perspective of single stakeholder group, in most cases the owner-manager but occasionally from the standpoint of employees or intermediaries.

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[7] The value of 'shock' for learning and developing new working practices has also been discussed in the context of larger organisations. For an interesting anthropological example on shock (not economic but disruption to routine events) see Powell et al (2014).

Table 2.3: Common themes in the literature on OSH in SMEs and micros

Themes	Sources
Lack of information, knowledge and awareness of OSH legislative requirements/regulations	Antonsson et al. (2002); Bradshaw et al. (2001); Champoux and Brun (2003); Corr Willbourn (2009); Fairman and Yapp (2004); Fonteyn et al. (1997); Vickers et al. (2005)
Fear of prosecution/compensation claims is a motivating factor for taking OSH more seriously	Barbeau et al. (2004); James et al. (2004)
Lack of resources to deal with OSH issues (lack time, skills, expertise, money, formal process + demands of the job)	Antonsson et al. (2002); Barbeau et al. (2004); Champoux and Brun (2003); Eakin (1992); Eakin and MacEachen (1998); Holmes et al. (2000); Vickers et al. (2005)
Underestimate/discount/unaware of OSH risks (unable to identify problems/over-optimistic about the safety of their working environment) – talk down risk	Antonsson et al. (2002); Barbeau et al. (2004); Champoux and Brun (2003); Eakin (1992); Fairman and Yapp (2004); Fonteyn et al. (1997); Hasle et al. (2011); Holmes et al. (2000); Huang et al. (2011)
H&S inspectors are an important source of OSH knowledge	Fairman and Yapp (2004); James et al. (2004)
Accident/incident rates used as a marker of OSH success/compliance	Bradshaw et al. (2001); Parker et al. (2007)
Reluctant to seek or don't perceive the need for OSH help/support/information	Antonsson et al. (2002); James et al. (2004)
Unstructured/unsystematic approach to managing OSH	Antonsson et al. (2002); Barbeau et al. (2004)
Lack of management commitment/motivation/responsibility for OSH	Barbeau et al. (2004); Eakin and MacEachen (1998); Holmes and Gifford (1997); Parker et al. (2012)
Lack of employee participation/engagement in OSH	Barbeau et al. (2004); Champoux and Brun (2003)
Confusion about division of OSH responsibility between owners/managers and workers	Bradshaw et al. (2001)
More focus on safety rather than health	Bradshaw et al. (2001)
Blame OSH problems on employees (e.g. not using equipment provided) – shifting/devolving responsibility	Bradshaw et al. (2001); Champoux and Brun (2003); Corr Willbourn (2009); Hasle et al. (2009); Hasle et al. (2011); Holmes and Gifford (1997)
OSH is taken more seriously when its linked to production	Champoux and Brun (2003)
Rely on informal sources of OSH knowledge (e.g. word of mouth from colleagues, third parties etc…)	Corr Willbourn (2009); Fonteyn et al. (1997)

Themes	Sources
Antipathy for inflexible OSH rules/regulations	Corr Willbourn (2009); Hasle et al. (2011); Vickers et al. (2005)
Trickledown of OSH knowledge from big sites	Corr Willbourn (2009)
Common sense approach to assessing OSH risks (context specific approach/standards)	Corr Willbourn (2009); Hasle et al. (2011)
OSH intrinsic with jobs/trade skills (health and work are indistinguishable)	Corr Willbourn (2009); Eakin (1992); Fonteyn et al. (1997); Holmes and Gifford (1997)
Fatalistic attitude towards OSH and accidents (they are part of the job, unforeseeable, down to bad luck etc…)	Corr Willbourn (2009); Fonteyn et al. (1997); Hasle et al. (2009); Hasle et al. (2011); Holmes and Gifford (1997); Eakin (1992); Lingard and Holmes (2001)
Leave OSH to the workers (wish to avoid being paternalistic)	Eakin (1992); Hasle et al. (2011); Parker et al. (2012)
OSH lower down the list of priorities – marginal concern (probability of injury is low)	Eakin (1992); Hasle et al. (2009); James et al. (2004)
Differences in OSH management practices between size of firms (larger firms more proactive due to greater resources/visibility).	Champoux and Brun (2003); Eakin and MacEachen (1998); Fairman and Yapp (2004); Parker et al. (2007); Sørensen et al. (2007)
Reactive rather than proactive approach to OSH	Fairman and Yapp (2004); Vickers et al. (2005)
Existing methods of imparting OSH knowledge are not adequate	Eakin (1992); Fonteyn et al. (1997); James et al. (2004)
OSH practices are socially constructed	Eakin (1992); Eakin and MacEachen (1998); Holmes and Gifford (1997); Holmes et al. (2000)

Despite the diversity in study contexts and research approaches, there are several common themes identifiable in the literature on OSH in smaller organisations. The main themes are summarised in Table 2.3. Our view is that these themes are helpful but are not necessarily relevant to all SMEs or micros, and also that some are also very applicable to much larger organisations. This view is supported by Champoux and Brun, who found that management style and organisational culture were as important as the size of enterprise, and echoed by Barbeau et al. (2004, p.378), who concluded that *"… smallness, in itself, would not appear to be a barrier to developing and implementing management commitment to OSH"*.

The heterogeneity of approaches towards OSH in SMEs and micros was also reflected in a Health & Safety Executive (HSE)[8] study commissioned as part of the UK government's Donaghy Inquiry into the underlying causes of construction fatal accidents (Brace et al, 2009). The study investigated the reasons behind the high proportion of fatalities in construction micro enterprises and found that there was a considerable spectrum of attitudes to OSH and that these was heavily influenced by individuals' past experiences: *"… some may have worked on 'big sites', some may have entered the industry from other employment and bring with them what could best be described as 'DIY skills'"* (p.194). Brace et al (2009) also stressed the influence that clients (often home-owners) can have on attitudes, in that *"… the workers' perception is 'Clients won't pay for more than DIY'. The client can have the attitude of 'I could do that myself for a few quid'"* (p.194).

One common theme from the literature is that owners and employees in smaller organisations tend to lack awareness and knowledge of the OSH legislation and regulations relating to their area of work. For instance, in their study of small manufacturing businesses in Sydney, Australia, Fonteyn et al. (1997, p.54) found that *"the nature and extent of the owners' OHS knowledge was limited. Limited awareness and understanding of OHS legislation was a common problem."* The authors of the study found that one third of owners had no awareness of OSH legislation and even those with a basic awareness of legislation did not understand their legal responsibilities. Similar issues were apparent in a cross-sector survey of small UK businesses by Vickers et al. (2005), revealing:

> *"… a low level of awareness of specific health and safety legislation relevant to their businesses by respondents. Even in relatively high risk sectors, such as construction, only about half the respondents were able to broadly identify health and safety legislation that applied to their businesses." (p.18)*

A lack of knowledge and awareness of OSH requirements has been found to give rise to what is undoubtedly the most common theme in the literature on OSH in smaller organisations: the tendency for owners and employees to underestimate, discount or talk down OSH risks and problems in their working environment. In a study of small food businesses in the UK, Fairman and Yapp (2004; p.50) concluded that:

> *"Small businesses appear to lack the skill and knowledge necessary for them to be able to identify hazards within their premises. This leads to confidence problems in identifying and rectifying problems. It can also lead to over-confidence and a belief that no hazards exist and that the public will not be exposed to food safety risks. This lack of knowledge contributes to the mistaken belief by many small businesses that they comply with the law."*

We consider that this claim is somewhat simplistic and it is not clear whether Fairman and Yapp (2004) considered other potential underlying issues such as a lack of access to information or the information not suiting their needs. However, Fairman and Yapp (2004) go on to claim that small business owners tended to determine their OSH compliance based purely on what an inspector had asked them to do, rather than their own knowledge of legislative requirements. This echoes the findings of studies by Bradshaw et al. (2001) and Parker et al. (2007), both of which suggest that small business tended to use a lack of accidents or incidents in the workplace as an indicator of their company's compliance. Our experience suggests that this may well be

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[8] The Health and Safety Executive (HSE) is the regulatory body responsible for encouraging and enforcing workplace health and safety in England, Wales and Scotland.

more to do with a lack of resources in smaller organisations and the way the legislation is implemented by the authorities, the latter of which is outside the control of SMEs and micros.

OSH legislation for smaller companies has been a particular feature over recent years in the UK. The coalition government led by David Cameron has sought to reduce the health and safety burden on industry. Cameron is quoted as saying that he will *"kill off the health and safety culture for good"* (Woodcock et al., 2012) and *"wage war against the excessive health and safety culture that has become an albatross around the neck of British businesses"* (ibid). Reports were commissioned aimed at reducing this burden (Young, 2010; Löfstedt, 2011).

Löfstedt (2011) concluded that "in general, there is no case for radically altering health and safety legislation" but added that *"there are a number of factors that drive businesses to go beyond what the regulations require and beyond what is proportionate."* He also commented that "many small businesses find it difficult to interpret" phrases such as 'so far as is reasonably practicable.' Many smaller organisations find it difficult to understand how to comply with current health and safety legislation (Risk and Regulation Advisory Council, 2009).

One feature of the Löfstedt report was to *"take self-employed people out of whole classes of health and safety regulation"* (Woodcock et al., 2012). However, Löfstedt is quoted (Anon, 2015) as claiming that the implementation of his recommendations *"may increase injury and death in the workplace"*. In his 2011 report, Löfstedt caveats his exemption proposal by limiting it to those who *"pose no potential risk of harm to others."* However, the revised legislation exempts all self-employed unless they *"carry out an activity on a prescribed list."* Löfstedt goes on to say the *"the danger with the proposed list is that self-employed individuals who are not on it will be exempt even if the jobs that these individuals do are in actual fact rather dangerous and unsafe"* (Anon, 2015). Brace et al (2009, p.9) suggested that not enough enforcement was contributing to complacent attitudes and risky behaviours amongst some construction SMEs, *"who get missed out on with checks and measures"*. However, they also found that many SMEs were exemplar performers and should not be *"tarred with a generic brush"* of bad practice (p.9). Thus it appears that top-down approaches to address the difficulties of OSH legislation interpretation and application for smaller companies are very problematic.

A lack of resources – particularly time, money and information – has frequently been cited as a reason why smaller organisations appear to have low levels of OSH knowledge and awareness. Barbeau et al. (2004) argue that the *"realities of production"* and the demands of keeping on top of day-to-day business mean that OSH tends to be lower down the list of priorities in smaller organisations. Indeed, Champoux and Brun (2003, p.16) suggest that:

> *"Some prevention and OHS management activities are practised regularly in small firms. The most common are activities that are also required to ensure production. However, activities that have a less direct impact on production (e.g. job rotation and the allocation of light tasks), and especially safety management activities, are much less common."*

Once again, we suggest that the reality is likely to be less clear-cut than suggested here. An SME or micro might not have an awareness of all of the details of OSH legislation, but this is not to deny other ways of knowing and experience that people develop and use both in and through their practice in order to work in safe and healthy ways. This links with the notion that, rather than being a formalised or structured process, OSH in smaller organisations is intrinsic or integral to the job or trade being undertaken – in other words, health and work are indistinguishable or inseparable, and the ability to work safely is a reflection of the skills of the individual concerned (Eakin, 1992; Corr Willbourn, 2009). However, in some cases this can lead to employees being blamed for accidents and injuries, because responsibility for OSH has, in essence, been devolved to the worker (Holmes and Gifford, 1997). It can also result in a fatalistic attitude to OSH, in which accidents and injuries are viewed as an inevitable *'part of the job'* (Holmes et al., 2000). We argued against these types of assumptions in our recent report on large, networked organisations (Gibb et al, forthcoming).

The literature provides an interesting insight into how social relations in smaller organisations can affect OSH practices. For instance, Eakin (1992) found that owner-managers said that they were reluctant to impose OSH practices on workers because this would run counter to the norms of individual autonomy and non-hierarchical relationships in the workplace. They also wanted to avoid being paternalistic and, in some cases, felt that they lacked the authority to intervene to improve OSH practices. Similar issues were identified by Parker et al. (2012, p.474) who found that *"employers were conflicted about allowing employees a certain level of independence while also maintaining a safe workplace."* This is supported by our previous work studying the influence of supervisors on the construction of the London 2012 Olympic Park (Cheyne et al., 2012; Finneran et al., 2012). Research in Denmark by Hasle et al. (2011, p.636) revealed that owners

> *"… try to identify the standard that is generally accepted by colleagues, employees and authorities in the sector, and they try to be in line with that standard in order to portray themselves as decent people and protect themselves from personal guilt should something go wrong".*

Hasle et al. (2009) argued that this desire for self-protection was also reflected in a tendency for owners to attribute accidents and incidents to 'bad luck' or unforeseeable circumstances beyond their control. However, employees might view these types of behaviour as an abdication of responsibility on the part of owners (Holmes and Gifford, 1997).

The literature sheds lights on the sources of OSH knowledge in smaller organisations. Trusted intermediaries, such as insurers, accountants and trade associations, have been identified by a number of authors (e.g. Antonsson et al., 2002) as important sources of OSH knowledge, even though their importance is not necessarily supported by empirical evidence. Studies in the UK by James et al. (2004) and Fairman and Yapp (2004) both found that intermediaries were considered to be less important than OSH inspectors as sources of knowledge. 'Informal' sources of knowledge, such as colleagues, business acquaintances and friends, have also been found to be important for smaller organisations. For instance, research in the UK construction industry by Corr Willbourn (2009) revealed that respondents were more likely to listen to peers than the HSE. However, research in Australia by Fonteyn et al. (1997) raised concerns about the adequacy of such knowledge. Brace et al (2009) found that many micros said the *"cost of training was prohibitive and access to good practice examples difficult, relying on newspapers, trade literature and builders merchants"*. Corr Willbourn's (2009) study also highlighted two other important sources of OSH knowledge for smaller organisations - common sense and trickledown from larger sites.

In a study of five small construction sites (between 6 and 30 workers), Aboagye-Nimo et al. (2013) argue that common sense is intrinsically linked to experience. They suggest that small firms have a common sense and situational approach to site safety, rather than a bureaucratic and context free approach typically adopted by larger firms. Whilst we can see how this somewhat stark contrast may be apparent at a superficial level, our previous work with large, networked organisations found that the significance of informal, socially constructed knowledge and the claimed use of 'common sense' are not restricted only to smaller organisations and that significant levels of informal practice exist in large organisations below the bureaucratic external facade. Notwithstanding the above, neither common sense nor trickle down have received much attention in the literature and therefore warrant further empirical investigation[9].

A number of studies have looked at how approaches to OSH compare in different sizes of organisations. Fairman and Yapp (2004, p.50) suggested that *"small businesses have particular characteristics, and the process through which they make decisions as to whether to comply with legislative requirements will differ from those in larger businesses"*. Larger organisations tend to be more proactive at dealing with problems and adopt more formalised processes for dealing with OSH issues (Parker et al., 2007; Sørensen et al., 2007), something that Champoux and Brun (2003) attributed to the fact the larger organisations tend to be more

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[9] Our recent study of OSH in large, networked organisations (Gibb et al., forthcoming) also highlighted the significance of informal, socially constructed knowledge and the claimed use of 'common sense'.

visible (to inspectors) and less isolated (better networked) than their smaller counterparts – in contrast, a lack of resources was considered to be less of an issue.

National and supranational accident statistics also provide an insight into differences in OSH outcomes in different sized organisations. Table 4 contains statistics from a European study suggesting that accident rates were higher in SMEs than in larger companies and that fatal accident rates were twice as high in small and micro companies than those in large companies. Similar differences in accident rates are also evident in specific countries and sectors. For instance, Walters and Bolt (2009) found that firms with fewer than 14 people employed 40% of the construction workforce in Britain but, for the period 2003-08, two-third of fatalities were self-employed or employed by firms of 15 people or less. In other words, workers in such companies had a greater risk of fatal injury.

A traditional criticism of the literature on OSH is that it has tended to treat smaller organisations as small versions of larger organisations, thereby overlooking their distinctive characteristics and the different contexts in which smaller organisations operate (Eakin and MacEachen, 1998). However, there is also a need to recognise the heterogeneity of SMEs and micros. Vickers et al. (2005) also recognised this variety and differentiated between four types of organisation:

- Avoiders or outsiders
    - who have poor or non-existent awareness of legislative requirements and view them as a burden and something to be avoided
- Minimalists
    - who also have low levels of awareness but will respond to legislative requirements under compulsion
- Positive responders
    - who have some knowledge of OSH requirements but require guidance when responding to them
- Proactive learners
    - who have relatively good levels of knowledge and are more likely to effectively self-regulate.

Table 4: Accidents at work in the European Union in 1996 (WHP in Europe, 2001; p.21)

	Accidents with more than 3-days absence		Fatal accidents (excluding Norway)	
Company size	%	per 100.000 employees	%	per 100.000 employees
1 - 9	32,3	4.241	45,1	6,8
10 - 49	27,4	5.195	27,0	6,3
50 - 249	22,5	4.043	15,4	3,4
250 or more	17,8	2.943	12,5	2,7
total	100,0	4.229	100,0	5,3

Elsewhere, Haines et al. (2004) suggested a spectrum of attitudes to sensation, and hence risk, adopted or cultivated by sole traders. Their model was developed further in the construction context by Brace et al (2009), who differentiated between:

- Sensation seekers – these are adrenalin junkies – they need the 'big stick' approach

- Sensation deniers – these are either ignorant of risk through lack of experience or de-sensitised through continual accepting of risk – they need training, increased awareness, and sadly possibly to experience or witness an accident before they will learn.

- Sensation acceptors – these cope with the 'fear' for beneficial outcome – these are the bulk of the sole traders and these are the main challenge that needs to be addressed.

- Sensation avoiders – these are the people for whom 'No risk is worth the risk' – no action is needed – they are probably not working in the industry in any case.

Although clearly simplifications, typologies such as this one are a useful way of highlighting potential differences in knowledge, attitudes and behaviours amongst smaller organisations, and understanding the reasons for these differences.

It also important to recognise that OSH attitudes and practices change over time, both within and across industry sectors and within organisations. For instance, Brace et al (2009, p.44-46) described changes in the UK construction sector in relation to good and poor OSH working practices since the 1980s, as illustrated in Figure 2.2.

1980s: Poor practice

~2010: Better practice
(Particularly in larger organisations)

Medium-term target: Good practice in all large and most medium organisations

Vision: No poor practice and no unlicensed 'cowboy' builders

Figure 2.2: Changing OSH practices in the UK construction since the 1980s (from Brace et al, 2009, p.44-46)

Brace et al (2009) assumed the existence of a relatively small number of large, networked organisations; a larger number of medium-sized organisations, some working for the larger firms or within their networks and some on their own; a very large number of very small, micro organisations and an unknown number of unlicensed, 'cowboy' builders. They also suggested a trickle-down in knowledge and good practice from large, networked organisations to SMEs working within the larger firms' networks, and then subsequently to those outside networks and then eventually to micro enterprises. However, this theory was underpinned by a relatively small sample of data.

In another study, Finneran and Gibb (2013) consulted with an international network of OSH research experts and developed an adaptation of the Pybus OSH maturity model (Pybus 1996 in Lingard & Rowlinson, 2005) to propose the development of improved OSH culture and practices, moving over time from large, to medium, to small, to micro organisations. We have inverted the Pybus model to show an increase in OSH rather than a decrease in accidents and incidents (Figure 2.3 and 2.4). However, given the argument that SMEs and micros should not be viewed simplistically as smaller versions of larger organisations (Eakin and MacEachen, 1998), it may be inappropriate to include micro, and perhaps even some small organisations, with the same OSH maturity development profile as larger organisations (Figure 2.5). Aboagye-Nimo et al (2014) support this view arguing that there are likely to be a mix of Pybus's phases operating within micro enterprises.
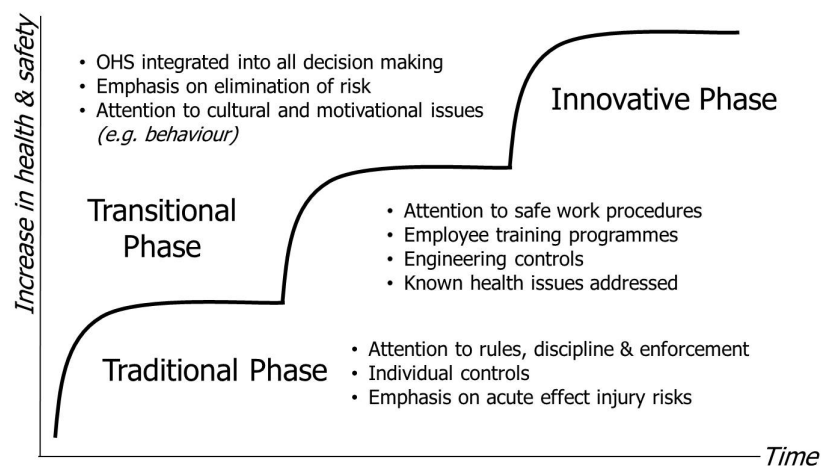
Figure 2.3: Stages in the evolution of a culture of safety
(adapted from Pybus 1996 p.18, in Lingard & Rowlinson 2005 p.33)
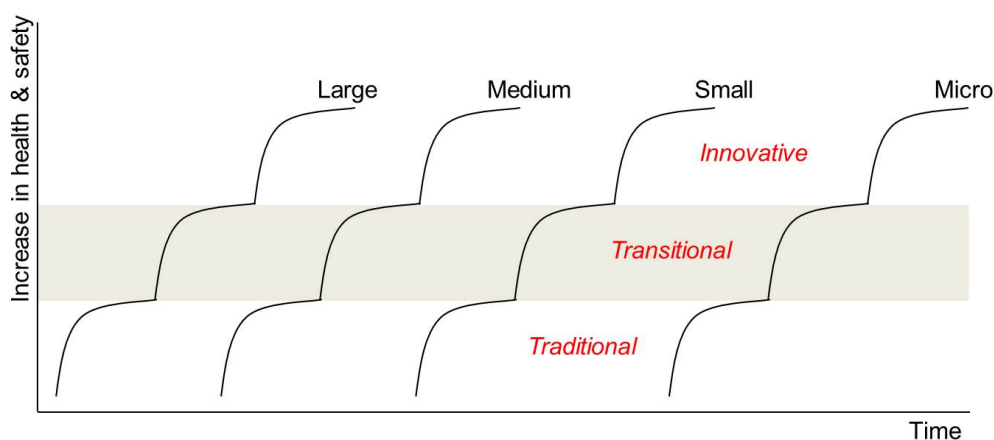
Figure 2.4: Suggested progression in improved safety culture from large to micro organisations
(from Finneran & Gibb, 2013)
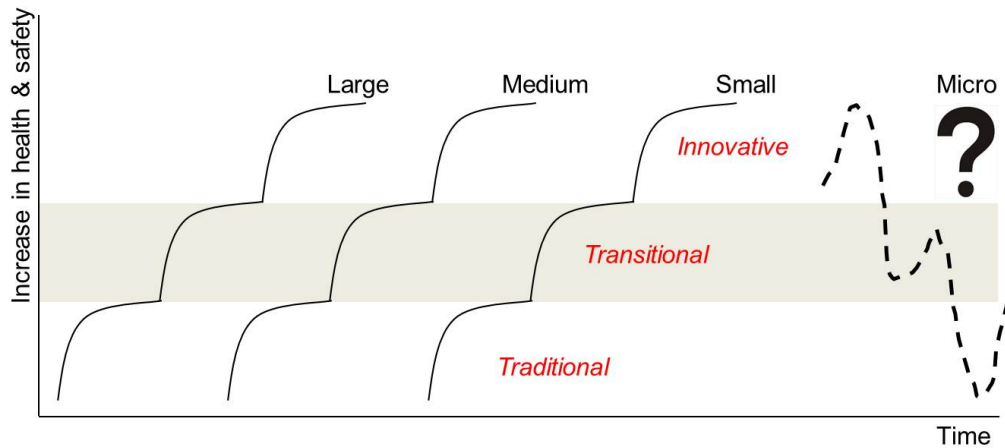
Figure 2.5: Micro enterprises do not follow the same OSH development pattern as larger organisations
(adapted from Finneran & Gibb, 2013)

A number of conclusions can be drawn from the literature on OSH in SMEs and micro enterprises. First, although there is a growing body of literature on the subject, the body of empirical evidence is still relatively small and spread thinly across a wide range of sectors and geographical locations. Consequently, some issues, such as the trickle-down of knowledge through supply-chains, have received very little attention from researchers. Secondly, there is very little overlap between the OSH literature and the literature on growth and learning in SMEs and micros - or indeed the broader business and management literature. Hence, there is a lack of understanding of how or why OSH practices change as organisations grow, or the way that knowledge and learning influence attitudes and approaches to OSH. Finally, most of the previous empirical studies on OSH in smaller firms have tended to examine the issue from the perspective of the owner-manager. Our research therefore sought to adopt a more balanced approach by foregrounding the views of employees as well as those of owner-managers. In doing so, we employed a mixed-methods qualitative research strategy, further details of which are provided in Section 3.

3 METHODOLOGY

3.1 Research strategy

We adopted a qualitative research strategy in this study in order to develop new theoretical insights and offer new ways of understanding OSH practices in SMEs and micros (Corley and Gioia, 2011). Caley et al. (1992) state that qualitative methods are ideal for discovering what happens in 'real life' - the complex configuration of action and belief (see Hammersley, 1993, p.20). Qualitative research lends itself to the study of phenomena 'in situ', thereby structuring social actors constructs in their specific setting, and relies on social actors' meanings to understand how social experience and knowledge are created (Bryman, 2008; Denzin and Lincoln, 1998; MacPherson et al., 2000). Adopting a qualitative approach in this study therefore allowed us to tell the story of OSH practices in smaller organisations (Bansal and Corley, 2011), to see the topic from the perspective of the actors concerned, and to understand how and why they came to have a particular perspective on OSH.

In contrast to most other studies on this subject (see Appendix A), our research employed a mixed-methods approach comprising structured interviews, short-term ethnographies and semi-structured interviews with owners and employees in smaller organisations from a range of industry sectors, further details of which are discussed in this section. This mixed-methods approach was similar to that taken in our recent study of OSH practices in larger, networked organisations (Gibb et al., forthcoming) and provided us with multiple perspectives (Jick, 1979; Miles and Huberman, 1994; Silverman, 2009), the assumption being that *"the more perspectives that one trains on a particular object, the more complete knowledge of that object will be"* (Porter and Shortall, 2009, p.261).

Adopting a mixed-methods approach also meant that we were able to achieve a balance between breadth of insights and depth of insights (Figure 3.1). The former enabled more robust comparisons across sectors and different sizes of organisation; the latter allowed us to assume a more inductive and interpretative approach that acknowledged the practice-based, socially situated nature of knowing and doing, and sought to establish fresh understandings of the multiple influences that shape the learning context of SMEs and micros. Our emphasis was therefore on understanding the meaning not the frequency of OSH practices (Cassell and Symon, 1994). This approach is based on the assumption that OSH knowledge emerges from the social, embodied/sensory, political, and economic experiences of individuals, as located within – and interacting with - the emergent properties of workplace environments.
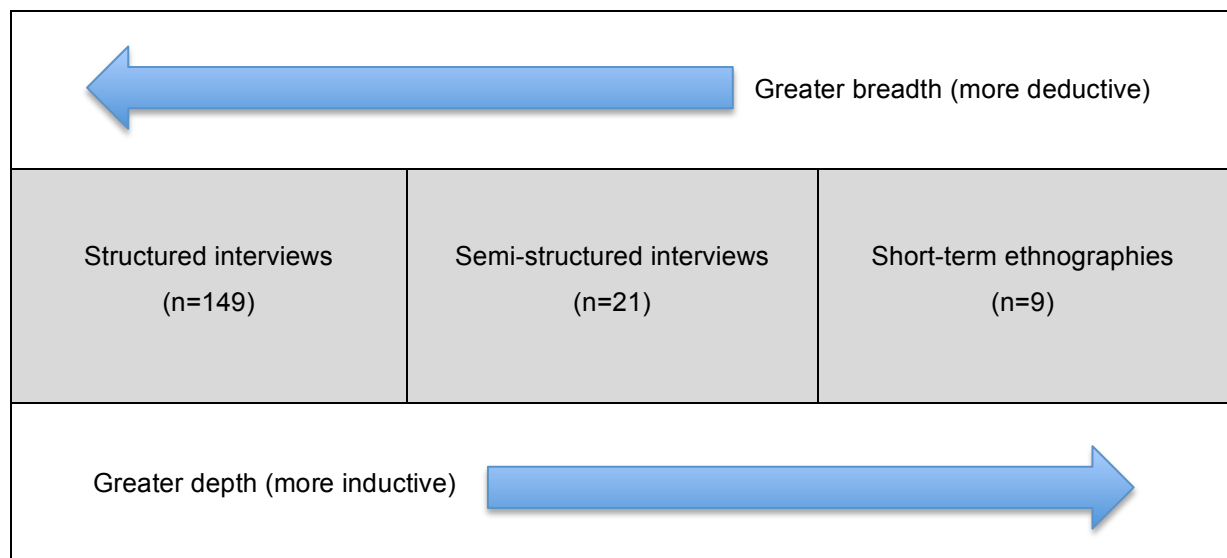
Figure 3.1: Data collection methods employed in this study (n=number of participants)

3.2 Sampling

In this study we focused primarily on accessing owners and employees in SMEs and micros in three main sectors in the UK: healthcare, logistics and construction. This mirrors our approach in the recently completed IOSH funded study into *Occupational Safety and Health in Networked Organisations* (Gibb et al., forthcoming). The construction sector has been studied relatively extensively in the literature on OSH in smaller organisations (see Appendix A); however there has been comparatively little research into the healthcare and logistics sectors. Construction therefore acted as a useful reference sector against which we could compare our data from logistics and healthcare. The research team also had existing relationships in all three sectors, which facilitated access to participants.

Table 3.1 provides a detailed breakdown of the number of participants, by size of organisation and sector. In addition to the three main sectors described above, we also engaged with participants in a range of other sectors, including mining (n=6) agriculture (n=22), retail (n=18) and hospitality (n=11). Broadening our sample this way enabled us to gain insights into a more diverse range of work settings with different levels of risk and explore with more confidence the interplay between type of work and OSH knowledge and practices.

Table 3.1: Number of participants engaged with, by organisation size and sector

Sector	Size of organisation				Total
	Sole trader	Micro	Small	Medium	
Agriculture	6	16	0	0	22
Automotive	0	1	1	0	2
Beauty therapy	1	0	0	0	1
Construction	14	11	7	8	40
Consultancy	0	0	2	0	2
Engineering	0	3	0	0	3
Healthcare	4	5	4	7	20
Hospitality	1	8	2	0	11
Information technology	0	0	0	1	1
Leisure	1	0	0	0	1
Logistics	6	14	2	12	34
Maintenance	1	1	0	1	3
Manufacturing	0	6	0	0	6
Mining	1	0	0	5	6
Performing arts	2	2	0	0	4
Retail	4	14	0	0	18
Tourism	0	2	3	0	5
Total	**41**	**83**	**21**	**34**	**179**

Participants were selected purposively for maximum variation, that is to say they were chosen because they were likely to provide useful insights into a range of different work settings. This approach to sampling explains the differences in the number of responses in each sector, with some sectors (such as beauty therapy, leisure and automotive) only having one or two participants. In total we engaged with 179 individuals in 110

companies, using one or more of the research methods described below. Of those 179 individuals: 70 were employees; 55 were owner-managers; 45 were owners; and eight were managers.

We were also interested in engaging with sole traders and micros that were working within networks; however we found that this was actually quite a difficult concept for people to understand as different sectors and organisations had very different perspectives on what constitutes a network. Notwithstanding, examples of some of the 'networked' relationships that we came across included:

- Pub landlord (micro company) to a larger pub company

- Medical practice to (different parts of) the NHS

- Multiple physiotherapist sole traders working within a physiotherapist practice

- Domestic tradespeople that work with multiple clients (some large clients, some domestic clients)

- A sole trader working closely with another sole trader

We also had interesting perceptions of what constituted a sole trader, including:

- A sole trader farmer managing self-employed workers but treating them as employees

- One participant describing himself as a sole trader but also stating that he had two 'employees'

3.3   Structured interviews

Structured interviews provided us with a standardised research method in which multiple interviewers asked the same questions the same way, thereby ensuring that the data collected were consistent and reliable (Bryman, 2008; Cassell and Symon, 1994). The interview protocol that we used in the structured interviews is in Appendix B. Having multiple research team members conducting the interviews helped to minimise the impact of bias - an accepted feature of qualitative research (Bluhm et al., 2011).

The use of structured interviews also enabled us to access a larger number of participants. In total we held 149 structured interviews (Figure 3.1), around one third of which were recorded and transcribed; the remainder involved taking detailed notes during the interview. Where possible, multiple interviews were held within the same organisation in order to access multiple perspectives on the same issues. The interview questions were designed to be used with individuals from different sectors and worked well in the field, enabling brief interviews with participants lasting around 10 minutes. Twenty-two people answered the same questions using an online questionnaire instead of having an interview.

3.4   Short-term ethnographies

Our short-term ethnographic research took the form of a 'vignette' anthropological approach in order to access understandings, perceptions, and *actual practices* that are not (so easily) generated from non-ethnographic methods. We adopted a case vignette approach that focused on the 'intense encounter' (Pink and Morgan, 2013). This approach was especially well-suited to theoretical turns towards practice and performance because it enabled the (usually) unspoken or invisible elements of everyday working life to be explored. It was not feasible or appropriate, given the practical realities of engaging smaller firms, to use full ethnographic methods during several weeks of intensive fieldwork, as we did in our earlier project (Gibb et al, forthcoming). Therefore we used short-term ethnographic methods in a more time limited-way: spending hours rather than weeks with participating companies and individuals. These methods were collaborative and participatory, with participants being made aware from the outset of the kinds of engagements the researcher wished to fashion.

In total we recruited nine participants for the short-term ethnography from five different sectors: logistics, healthcare, the arts, consultancy and management, and beauty therapy. These were represented by a mix of:

self-employed workers; freelancers (who worked for both large and small companies); and owners, managers, and workers from micro, small and medium sized companies. Participants working outside of networks were included to enable us to consider how those not working in conventional networks might establish their own networks. We accessed more than one employee at several companies to canvas understandings from owners, managers, and workers. By recruiting practitioners from the performing arts sector we expanded our focus on health and safety into a novel and under-represented industry, thus contributing new insights to the field of safety research.

With participant agreement, the ethnographic work included:

- Site visits and 'guided tours' of workplaces to gain contextual details of companies and the wider OSH landscape in which they operate

- In-depth ethnographic interviews resulting in over 11 hours of audio-recording

- Analysis of OSH documentation

- Observation of workplace activities *in-situ*

- Visual methodologies (photography), where, appropriate.

Through these activities, the ethnographic research explored broadly how workers 'knew how' to do their work, as well as specific OSH-focused themes including: the regulated OSH context; the management of OSH in companies; the role of 'other' information sources (including the tacit); the importance of networks; how home-based workers performed OSH; and the influence of particular company structures and/or dynamics on OSH acquisition and enactment. Research activities were collaborative and participatory, providing reflexive opportunities for participants to 'tell' as well as 'show' us how they 'knew how' to work in safe and healthy ways. It was anticipated that taking part in the research would provide participants with an opportunity to: consider the work that they do in new ways, articulate practices that often go unnoticed (being routine and habitual), and make visible the many different ways that they work safely.

3.5   Semi-structured interviews

Twenty-one semi-structured interviews were held between October 2014 and January 2015, with a mix of owners and employees in the healthcare, construction and logistics sectors. As with the structured interviews, in some cases we had multiple interviews within the same organisation. For instance, we held six interviews in a physiotherapy practice, with three physiotherapists, one sports therapist, an administrator and the owner-manager. The semi-structured interviews were done after the initial coding of the data from the structured interviews and emerging findings had been generated from the ethnography, enabling us to introduce new areas of inquiry and explore previously identified themes in greater depth. The interviews were conducted in participants' place of work, permitting us to discuss their OSH knowledge and practices in context. Interviews typically lasted between 45 minutes and one hour, and were recorded with the interviewee's prior written consent and then transcribed. A copy of the interview questions is provided in Appendix C.

Semi-structured interviews are a commonly used data collection tool in qualitative research because they have the potential to generate rich and detailed accounts of an individual's situation and experience. They therefore complemented the structured interviews and short-term ethnography. They also provided us with flexibility (Cassell and Symon, 1994; Kvale, 1983, Kvale, 1996), enabling us to adapt to each context, organisation and individual (Correia and Wilson, 1997). They were flexible enough to allow discussions to lead into areas that may not have been considered prior to the interview, but which were nevertheless relevant to this study (Denzin and Lincoln, 1998; Goulding, 2002; Huberman and Miles, 2002). In most cases, interviewees needed very little prompting and talked extensively about their experiences and understanding of OSH in their data-to-day work, providing us with a rich narrative for analysis.

3.6   Coding and analysis

Data from the structured interviews were coded in two phases, independently by two different researchers, using NVivo 10 qualitative analysis software. This provided a layered approach to coding and reducing the likelihood that themes or issues were overlooked, since different people - with different backgrounds - will inevitably see different things in the interview data (Morse and Richards, 2002). The first phase involved coding the data deductively against the interview protocol in Appendix B, a process that generated wide-ranging insights. However, it was clear that other themes and issues had emerged during the interviews that fell outside of the original coding framework. A second researcher therefore coded the structured and semi-structured interview data inductively. Thomas (2006, p.238) suggested that *"the primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant, or significant themes inherent in raw data, without the restraints imposed by structured methodologies."* The findings from both phases were compared and discussed by the research team in a series of workshops. The information gathered and generated was reviewed by the members of the team from the standpoints of their individual specialisms and mutually agreed conclusions were then formulated. Both sets of findings are discussed in section 4 of this report.

The short-term ethnographies generated rich materials from which we have constructed a series of vignettes. While the term vignette has different meanings in the social sciences, we have taken a specifically anthropological understanding to interpret it as referring to a short written and anonymised account of an ethnographic event. This includes events generated from research interviews, walking tours, observations, and site visits. An interpretive analysis of these vignettes was undertaken and comparative understandings generated by being brought into dialogue with our previous work on large organisations (Gibb et al., forthcoming) and the findings generated from employing other research methods (i.e. semi- and structured-interviews). Our analysis sought to consider what the ethnographic materials tell us (to ascertain emergent themes), as well as asking specific questions of these (guided by the research objectives outlined above). The ethnographic analysis involved developing a dialogue between existing theoretical ideas, the ethnographic findings and the development of new theoretical ideas. Ethnographic analysis of research materials involves the interpretive skills of the ethnographer which are used to reflect on interview transcripts and ethnographic fieldnotes to determine patterns of meaning and action in the words and the activities undertaken by the participants. Ethnographic analysis involves making connections between different types of tacit and spoken ways of knowing and different types of research materials. Ultimately, this approach has enabled understandings about how OSH knowledge is generated, shared, and engaged during tasks undertaken in SMEs and micros. Section 4 of this report collates a range of differently situated perspectives including owners, managers, and employees, as well as freelance and self-employed workers. It brings together research materials and findings from the short-term ethnography with those of the semi- and structured-interviews to illustrate points of convergence between these data sets. Aggregating materials in this way differs from the approach undertaken in our previous work on OSH and large organisations (Gibb et al., forthcoming), and reflects that in this new study the short-term ethnography (based on a smaller sample size and shorter time-frames) was designed to support these methods by responding to emerging themes and generating empirical detail.

4 FINDINGS

4.1 Key themes

Analysis of the data from our fieldwork provided insights into how and why owners and employees of SMEs and micros:

- Learn, modify and communicate their **knowledge** about OSH in the workplace; and

- Enact, or put into **practice**, their knowledge of OSH and the contextual factors that influence this.

Figure 4.1 summarises the key themes emerging from the interviews and short-term ethnography. In this section we explore each of these themes in further detail, using quotations and vignettes (short written and anonymised accounts of ethnographic events including interviews, observations, site visits, and walking tours) to illustrate, elucidate and expand upon themes[10].

4.2 Sources of OSH knowledge

One way to understand how OSH knowledge circulates and operates in SMEs and micro enterprises is to identify where sources of information are located. Figure 4.2 summarises the sources of OSH knowledge that owners and employees in SMEs and micros cited during the course of our research. These were categorised during analysis as:

- **Tacit** – personal or individual sources of knowledge, such as common sense and experience;

- **Explicit** – sources of knowledge external to the individual but **internal** to the organisation, such as colleagues and managers; and sources of knowledge **external** to the organisation, of which there were a number of sub-categories.

It was not unusual for people to draw upon multiple sources of knowledge during the course of their work; for instance, a person might use their experience, together with knowledge sourced from their colleagues and their industry regulator.

4.2.1 Tacit sources

Tacit sources of knowledge – common sense and experience – were by far the most frequently cited sources in our research, to the extent that many of the people we engaged with struggled to articulate how they knew how to work in a healthy and safe manner – they just knew, because it was obvious to them and it was what they did, day in-day out. This was particularly the case for people that had experience of carrying out the same job for many years and for whom working healthily and safely had become *"second nature"* and *"just part of the job"[11]*. For instance, a farmer that we interviewed stated that OSH was not something that he was consciously trying to achieve or knew how to do, but that he did things that were right and correct for him – things that made sense, such as how to drive his tractor or look after his animals. Several other interviewees argued that they must know how to do their jobs safely otherwise they would have *"had an accident or be dead by now"*. Although this might suggest a degree of complacency and downplaying of risks, it also reflects the fact that people have developed what they see as safe practices, based on experience and common sense. Indeed, some participants felt that people not using common sense was a barrier to healthy and safe working.

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[10] Although the ethnography generated a number of vignettes, only four of them are included here for reasons of brevity and relevance to the themes being discussed.

[11] We recognise that it is also possible that actually the interviewees do not know how to work safely even if they think they do. A limitation of our methodology was that, intentionally, our researchers did not make judgements on whether the behaviour described was appropriately safe or not. We also acknowledge that there may be quite a difference between what people say when asked and what they actually happens in practice.
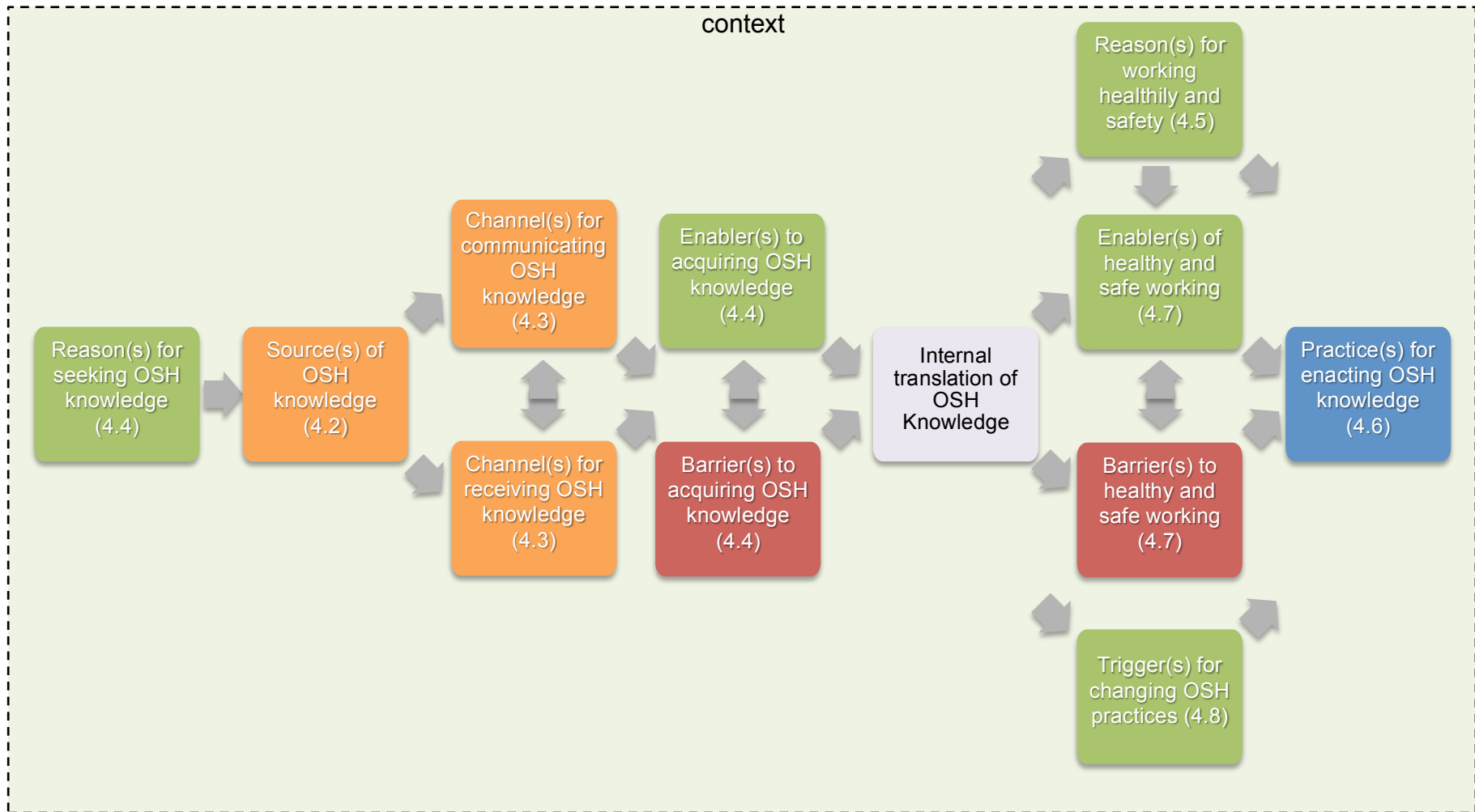
Figure 4.1: Aspects of OSH in SMEs and micros (numbers indicate relevant sections in this report)
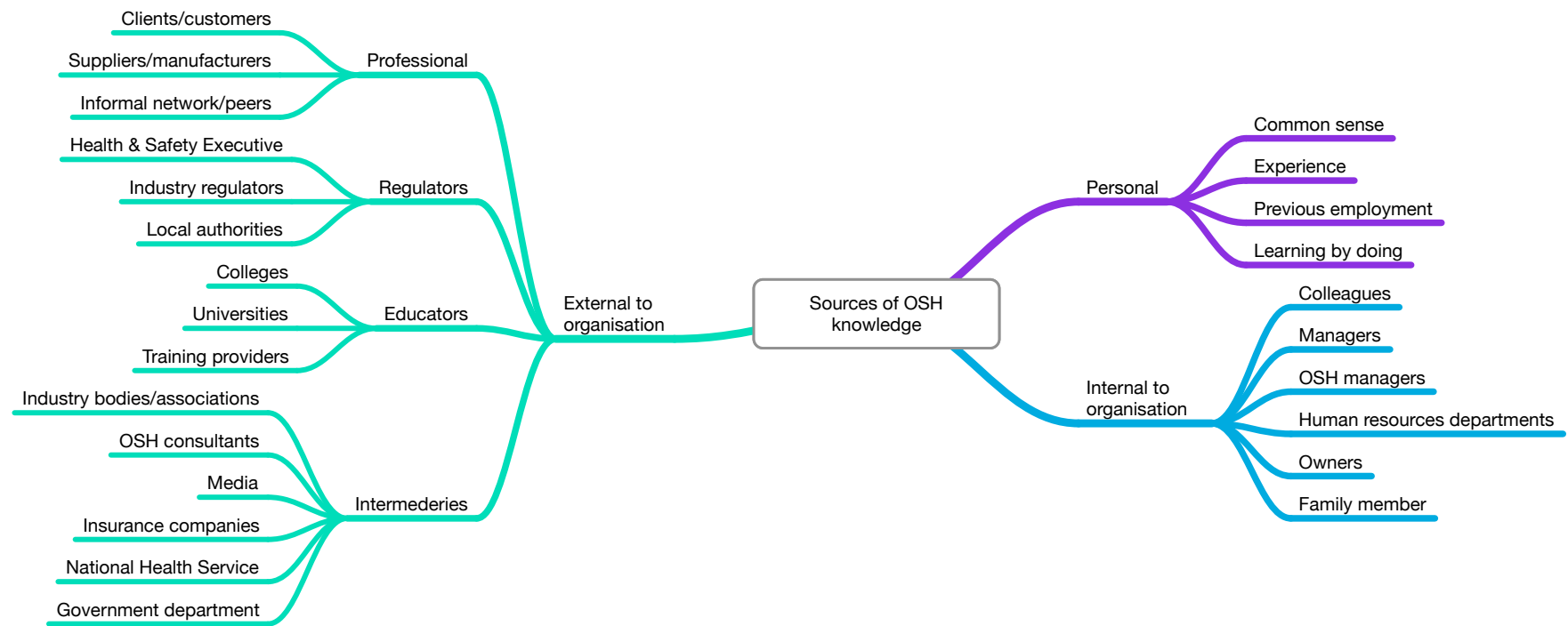
Figure 4.2: Sources of OSH knowledge in SMEs and micros

The importance of tacit knowledge was especially revealed through the short-term ethnography which foregrounded the role that sensory, embodied, and affective ways of knowing played in ensuring worker safety. This suggests that safety is not only something that is talked about or necessarily easily observed, but is also perceived and enacted in less explicit ways. Safety is *felt* and *sensed* through bodily, emotional, and sensory experiences of a workplace environment, as is eloquently described by the practitioner in Vignette 4.1 and also by others participating in the short-term ethnography. For instance, removals workers described *"knowing how"* to pack, lift, and transport boxes through bodily

"How do I know? A lot of it's common sense. And if you've been using machinery and tools and things like that, cutting tools, you basically learn through a lifetime's work"
(Employee, micro manufacturing)

sensation; a mobile beauty therapist spoke about relying on *"gut feeling"* to make decisions about whether homes are safe (or not) to work in; a company administrator described paying attention to cues like tension in her body to judge when she should take a short break from computer-based work; and a live (performance) artist described anticipating how audiences might respond to her interactive performance from their non-verbal cues including body language, gestures, and emotions. While evidently common across sectors, these ways of knowing were not usually articulated by participants to others *precisely because of* their routine and taken-for-granted status.

Learning by doing was also a particularly important source of OSH knowledge for workers in SMEs and micros and was closely linked with the notions of common sense and experience. The people that we engaged with explained how they had learnt from: their mistakes and near misses; by doing the same task many times; by observing and taking advice from others; and by solving problems encountered during the course of their work. The

"I think it's so everyday. It's like talking to your workers about breathing (laughs), you wouldn't do that. It's so routine, so ingrained that you wouldn't discuss it specifically, 'Oh, this is worthy of note'. It's not. It's just what happens every day when your body starts giving you messages.""
(Manager, removals company)

general sentiment was that learning was self-directed in smaller organisations. However, people also reported carrying knowledge with them from their previous employment, and then adapting and using that knowledge in their current role. In many cases those previous jobs were with larger organisations - such as a sole trader physiotherapist who had previously worked in the NHS - and more often than not the knowledge had been gained through formal training. For instance, two people that we interviewed had previously received manual handling training when working for large multi-national companies and now applied that knowledge in their current jobs as market traders.

Vignette 4.1: The role of tacit knowledge in OSH

The role of tacit knowledge was expressed during an ethnographic interview by a performing arts freelancer who described how stage management work required using a range of different sensory ways of knowing: or, as she put it, *"you're using all of your senses all of the time"*… She explained:

> *"Well, I think I take a lot of it for granted actually, being a musician, and being a performer. So when you're performing, you're always, obviously, using your ears. And you use a perception, like a musical perception, about how long to take a pause for, how to move through music and all that kind of stuff. And as a stage manager using music you also have to get used to that. Often you are cueing people in time to a very flexible phrase, but it has to happen. And it will happen at a different time each night. So you're using, you watch the conductor on a monitor and you behave like a musician, which is quite interesting. So there's*

that sort of musical sensory experience.

Then there is, you have to be I think very aware of your body because you're often required to get into small spaces, climb up things, work around – […] you're using your body a lot as well and you, it's also a perception of things. So if you're in a rehearsal room and you've had to shift a table a few times, after a while it's like, 'gosh this is actually dead heavy', you come to realise that couldn't be shifted in five seconds this many meters if we're doing it on the actual stage itself. It's things like […] whenever I walk across a stage in rehearsal something turns on in my body. So if I suddenly feel under my feet the stage is slightly slippery somewhere, or this floor cloth has got a crease in it, or anything like that, I think a stage manager is constantly, even if they're walking along on their lunch break, will take note, adjust it, bring that note to a production meeting, talk about that, you know, this area is too slippery. You're sort of always perceptive of that. […] I quite often walk through all the bays, absent-mindedly during rehearsal keeping walking back, up and down, through all the bays changing my gait. Trying to see how wide do I have to be to smash into that? Will that clunk this bloke on the head? Is that stage weight visible enough?

That's the other thing, so then you start using your eyes. So when all the lights go out, all the ASMs [assistant stage managers] walk round the stage during a lighting session and look at every single trip hazard on the ground, and everything that could injure somebody [or] their body in the dark, and tape white tape around it […] So you're constantly using your perception, and that's something I've really, really noticed, especially amongst really experienced stage managers. They are buzzing constantly, even if they're on their lunch break, about things […]

So you've got your eyes and your very physical things, but there's also the smell factor. I think you know, you can smell, so there's a haze on stage that's used a lot […]And you can stand in the wing and if it smells really hazy you can look on the stage and see, well I notice, 'oh there's way too much haze out there, right'. So I ask the electrics operators to turn it off for a bit […]

And then I think there's also that perception – there's a really, would you say […] empathetic perception as well that you use […] You've got to be really aware when people are feeling low, tired, ill, a little bit too hyperactive for their own good. You know, despondent, grumpy, and you work quite hard I think to massage the personalities along and make sure everybody is feeling OK. So that you can just get the job done simply, and make it the best space for everybody to work in."

In this interview extract the freelancer described how taking care of herself and others is an embodied, multi-sensual experience that is attuned to the musical, material, social, spatial, affective, and sensory contingencies of a performance unfolding in a particular time and place. Of course, these are not the *only* ways of knowing how to undertake this performance work safely. The freelancer also described: the types of regulated guidance she would typically (or expect to) encounter when working in companies (set out in industry standards and company-specific contracts), the training and an internship that had prepared her for stage management work, and the ongoing guidance she received from working with more senior, experienced practitioners. Yet the above illustrates some of the tacit, informal, and incremental elements that have emerged through the repeated practical experience of undertaking this work: or "learning by doing", as she also characterised it. It may even be concluded that safe working is a total (or all-encompassing) bodily, sensorial experience in which it is impossible to separate out any particular way of knowing (whether this be from looking, smelling, feeling, reading, or being told).

4.2.2 Sources internal to the organisation

Participants in our research cited four main sources of OSH knowledge within their organisations: colleagues, managers, owners and family members. In smaller family-owned micro businesses people often pinpointed their parents or siblings as their source of OSH – people that they trust and work with on a daily basis. In a few cases, parents reported asking their (adult) children for information because they had the skills and technology to find information on the Internet. In smaller micro organisations, employees tended to source OSH knowledge from the business owner, who more often than not had a hands-on role in the business and in-depth experience of the work, whereas in SMEs, employees were more likely to turn to managers when looking for OSH information.

> *"I learnt from my dad and then you learn on the job. I've also been to college as well so I have a diploma in agriculture and I've done courses for driving tractor ATVs and telehandlers"*
> *(Farmer, micro agriculture)*

Indeed, in some 'high risk' industries, such as mining, there was often a dedicated OSH manager, even in very small organisations.

However, there was not a clear association between size of organisation and internal sources of knowledge: there were examples of smaller micros in which employees relied on managers for OSH information; and there were larger SMEs in which the business owner remained the primary source of OSH knowledge. In other words, learning from sources within the organisation was very much context specific, depending on both the culture of the organisation and the type of work.

4.2.3 Sources external to the organisation

Owners and employees in SMEs and micros obtained their OSH knowledge from a diverse range of sources external to their organisations. External sources of OSH knowledge fell into one of four categories: those with whom SMEs and micros have professional relationships; regulators; educators; and intermediaries. Clients were a source of OSH knowledge for SMES and micros, particularly in the construction and logistics sectors. This flow of knowledge from clients to suppliers reflects that, in both of these sectors, sole traders and micro businesses form part of the supply-chains of larger organisations, who in turn influence how those smaller businesses go about their work. For instance, one sole

> *"I do hear about legislation or employer legislation changing, you know, you hear on the grapevine basically. I think a lot of trades people do hear about it that way."*
> *(Sole trader, contract gardener)*

trader in the construction industry explained how he picked up OSH knowledge when working as a subcontractor on larger building sites, knowledge that he then used when working on smaller domestic projects. However, in other cases OSH knowledge flowed from suppliers to clients. Examples include the manager of a care home who received an OSH update from one of her equipment suppliers; a pub landlord who sourced his employees' OSH training information from a brewery; and workers in various industries that read the manufacturer's instructions on how to use their tools and equipment safely.

Informal networks of peers and industry contacts were also a source of OSH knowledge for SMEs and micros. Networks may be created through online and digital-electronic media where proximity (or closeness) to others, especially for independent workers, is virtual rather than physical. For instance, a sole trader physiotherapist explained that she has a very good support network of people working in her field that she can email or phone and ask for advice. Similarly, the managing director of a mining company described how he and his counterparts in other mining companies would informally share OSH knowledge. By recounting such experiences, participants revealed to us some of the ways that companies who do not work within formalised networks might create (both purposively and indirectly) their own networks by connecting and collaborating with others, and the influences this has on their working practices. More generally, when working without the kinds of institutional 'back up' that exist in larger organisations, these indirect networks can be seen as enabling practitioners to feel supported in their work. However, not all instances of informal networks

involved peers: several interviewees explained how they had sourced information from friends and family who had experience of dealing with OSH.

Perhaps unsurprisingly, the HSE was one of the most cited sources of OSH knowledge for SMEs and micros, but industry regulators and local authorities were also mentioned during interviews. Local authorities, as the enforcing body, were a source of knowledge for those working in the food industry, such as catering companies and food retailers, but also for market traders and people providing respite care. Industry regulators provide a key role in providing knowledge to SMEs and micros in some sectors. For instance, those working in the care industry are subject to oversight by the Care Quality Commission, which also acts as a provider of guidance and information to care workers. Similarly, in the mining industry, an interviewee explained that he had received information from the Inspectorate of Mines and a manager of a heritage railway made reference to the Rail Inspectorate as a source of OSH information.

> *"I think we get it posted from the local council. We also obviously get annual visits so they'll probably let us know verbally on any major changes, but then we'll get sort of written changes through the post."*
> *(Owner, small catering company)*

A variety of intermediaries were mentioned as sources of OSH knowledge in SMEs and micros, including the NHS, government departments, insurance companies and the media. Industry bodies and associations were by far the most frequently cited intermediaries and were generally seen to provide information in a form that was tailored to needs of their members. For instance, an owner of a micro physiotherapy practice explained how an industry body called Physio First had provided her business with advice on policies, disseminated articles on current issues and had set up an online forum that allowed her to exchange information with peers. However, while noting the importance of industry associations as sources of knowledge and information, participants were not always active members of these bodies. This was epitomised by a performing arts freelancer who, although not a member of Equity (the UK trade union for professional performers and creative practitioners), described some of the union-established "standards" for working (such as taking breaks), which she perceived to help ensure worker wellbeing in her industry.

OSH consultants were also cited as a source of OSH knowledge, although these tended to be used by SMEs and micros in more tightly regulated sectors, such as railways and mining. Employing external consultants was seen to be a cost-effective way for smaller businesses to: access specialist and up-to-date OSH knowledge not available 'in-house'; reduce the administrative burden on managers; and have reassurance that their business is compliant. One participant (the managing-director of a micro removals company) explained that he would use a

> *"There's a group called the Heritage Railway Association and they send out information which does help to keep us up to date with what's changing on the legislation side."*
> *(Manager, heritage railway)*

consultant from the "private" sector, rather than the "public" (or "not-for-profit") sector, because he felt that people on commission were motivated in a way that professionals working in the not-for-profit sector might not be, and that he would feel confident they would ensure accuracy and quality of information (*"If it's something I want to get right and make sure it's done thoroughly, my perception would be with someone that is on a commission"*). Although unique to this participant, it is an important viewpoint to highlight because it illustrates a perception influencing why he chose to use some information sources and not others. It also indicated that OSH was considered a key aspect of running a SME and micro enterprise and necessary to 'get right', a sentiment that was shared by other participating companies.

The final category of information sources was educators: for the most part further education colleges and OSH training providers. In the case of colleges, OSH information was usually imparted to individuals as part of a broader vocational course relating to a particular area of work, such as agriculture or healthcare. The OSH information provided by colleges tended to be job specific and was perhaps therefore seen as being more relevant by the people receiving it, particularly if they were able to put the information into practice when

"I was taught to do things safely at college and my boss told me how to do things here as they have standard procedures for things"
(Farmer, micro agriculture)

carrying out their work. In terms of the OSH knowledge provided by private training providers, some people, such as sole trader electricians and heating engineers, received it when training to do their jobs; others, such as care home staff, received it through on the job training. As with the use of consultants, external training providers were an efficient way of accessing up-to-date OSH information, particularly in medium-sized organisations that had larger numbers of staff to train.

4.3 Channel types and methods for communicating OSH knowledge

Figure 4.3 summarises the different channels types and methods that participants in our research referred to when talking about how OSH knowledge is communicated (transmitted and received) into and within SMEs and micros. **Channel types** refer to the type of communication used by actors, that is to say: formal or informal, and in writing, verbally or by demonstrating something. **Channel methods** are the particular means through which knowledge is communicated, such as email, word of mouth or through face-to-face meetings.

4.3.1 Into organisations

SMEs and micros received OSH knowledge through a combination of formal and informal channels. For instance, one construction sole trader explained how he had learnt (informally) through word of mouth not to use leaded solder, information that he then verified by consulting the (formal) water bylaws. Formal training was by far the most frequently mentioned method through which smaller organisations received new OSH knowledge; in some cases this was training that owners and employees had received in their previous jobs, the knowledge from which they had then applied in their current role; in other cases external sources of training had been accessed during the course of their current job.

Examples of the latter include a construction sole trader receiving an induction on a building site or a respite carer attending a course on infection control.

"We get notifications via email if something has been updated in CQC. There's also a Health and Social Care protocol website that you can keep up to date with things."
(Manager, smaller healthcare)

Perhaps unsurprisingly, due to its accessibility, searching the Internet was a popular way for SMEs and micros to acquire information on OSH. Most of the information accessed on the Internet was formal: for instance a number of interviewees said that they had looked for information and guidance on the HSE website or the website of the regulator for their particular area of work. However, people also accessed informal sources of OSH information on the Internet using methods such as online forums.

External audits and inspections were another formal source of OSH information for SMEs and micros. These were either undertaken by an external consultant or by a regulatory body. For instance, a manager in a medium-sized haulage company explained how the company was risk-assessed annually by its insurance broker, a process that provided them with information on good practice and knowledge of what they should and should not be doing.

"The council will come over and check the van and they'll give you all the paperwork on how to deal with certain fish, temperature controls"
(Sole trader, fishmonger)

Channel types and methods for communicating OSH knowledge

Within organisations

Formally

In writing
- Training
- Cascading
- Emails
- Risk assessments
- Signage
- Policy documents
- Procedures

Verbally
- Risk assessments
- Meetings
- DVDs/videos

Demonstration
- Training
- Meetings

Informally

Verbally
- On the job training
- Ad hoc interactions

Demonstration
- On the job training
- Ad hoc interactions

Into organisations

Formally

In writing
- Training
- Audits/inspections
- Emails
- Signage
- Text messages
- Legislation/regulations
- Websites
- Mail
- Method statement

Verbally
- Audits/inspections
- DVDs/videos
- Meetings

Demonstration
- Training
- DVD/videos

Informally

In writing
- Online forums
- Industry press
- Media stories
- Press releases

Verbally
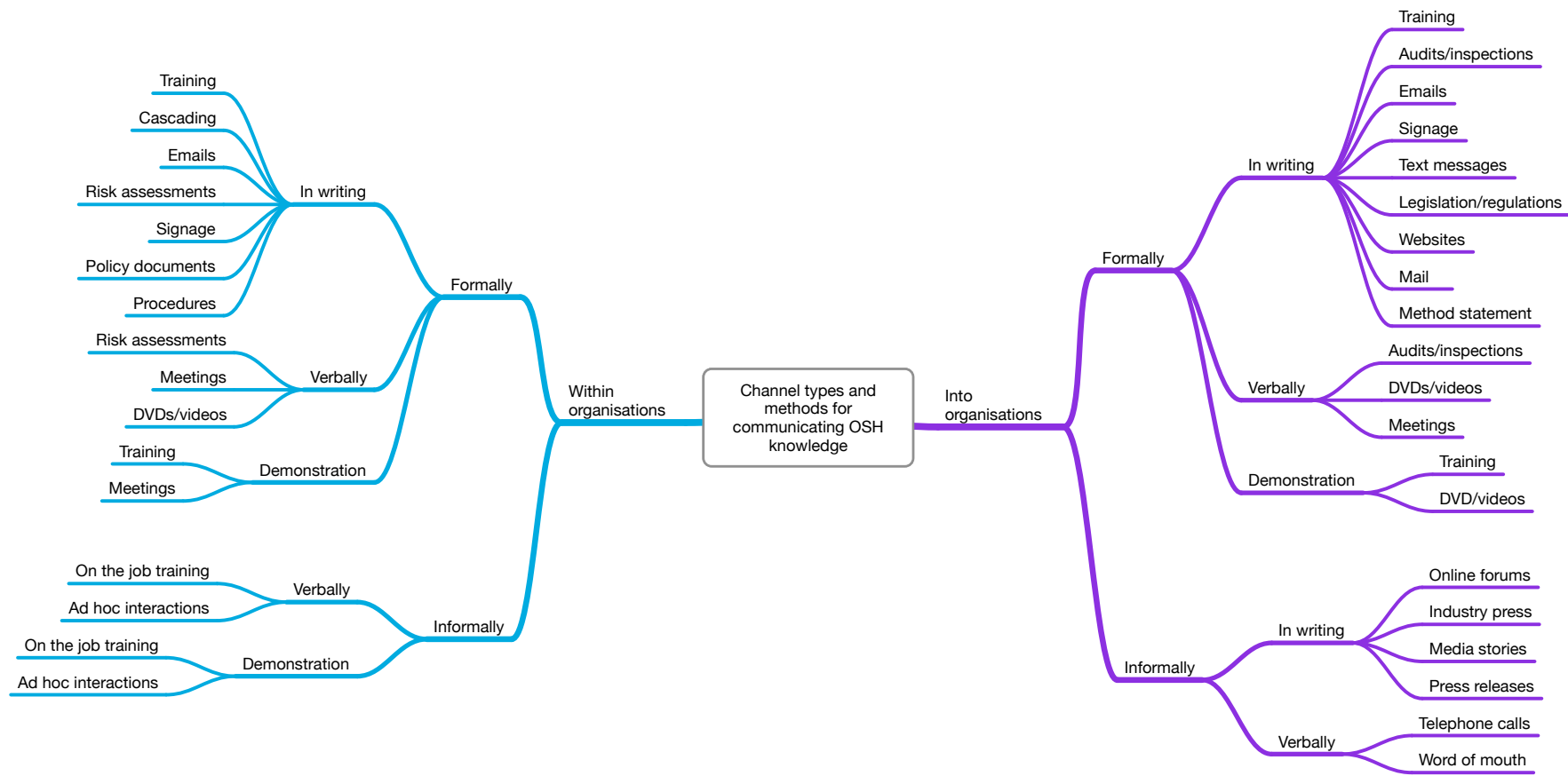- Telephone calls
- Word of mouth

Figure 4.3: Approaches to receiving and transmitting OSH knowledge into/within SMEs and micros

4.3.2 Within organisations

Face-to-face verbal communication was the most commonly used channel for sharing OSH information in SMEs and micros. The verbal communication that took place was both formal, for instance through briefings and meetings, and informal though ad hoc or impromptu conversations with work colleagues. In many cases – but particularly in SMEs – it was common for face-to-face verbal communication to be backed up or reinforced by some form of written guidance, such as an email, guidance notes or signage. This was to provide reassurance that the message transmitted had been received and understood. However, sometimes this process worked the other way around. For example, the Executive Director of a theatre company recounted how staff employed to work on particular productions (actors, directors) were supplied with company guidelines, including a written contract and staff handbook, but that she always endeavoured to reiterate the key points verbally on the first day of working together on a production through a face-to-face meeting with the actors. Moreover, she emphasised to workers the importance of communicating about any issues, and feeding these back to her if they could not be resolved within the production team.

"We tell our employees directly and make sure they understand what is required of them"
(Owner, bed and breakfast)

As expected, there were some noticeable differences in the channels of communication used by different size of organisations. Smaller micro organisations tended to rely on informal face-to-face verbal communication, since this was usually the most practical and efficient way of conveying information when the need arises – in the words of one micro business owner, they *"just have a chat about it"*. In contrast, in larger (small and medium-sized) organisations it was more common for knowledge to be transmitted using multiple methods and channels, but generally there was more of an emphasis on formal written communication. The channel of communication used could also depend on the urgency and importance of the information being shared within the organisation. For instance, the manager of a small heritage railway explained that day-to-day OSH information is generally communicated verbally, but if there is an operational change to do with how the railway was going to operate through a particular period – due to, say, engineering works – then written notices would be posted where employees sign in to work.

"If it's a particular issue that the staff need to know about, obviously we'd talk about it in staff meetings, or we'd produce some kind of literature for them to read to back it up, really, or we'd demonstrate it if it was like a moving and handling issue."
(Manager, smaller healthcare)

In larger SMEs, information tended to be cascaded down through the organisation, with managers asking for confirmation that the information had been received and understood. In most instances, OSH information would be transmitted down from owners and senior managers to middle managers and other employees, since the former were usually the people in the organisation that received the new information and it was their responsibility to ensure that their employees were aware of it.

OSH information was also transmitted up the organisational hierarchy: from employees to managers and owners, for instance when reporting problems or suggesting improvements to working practices. Information was communicated using both formal methods, including anonymous comment boxes, dedicated email addresses and meetings, and also more informal methods, such as impromptu conversations in the workplace. In one observation of a 'father-son-son's mate' micro construction enterprise doing a tricky demolition task the father was almost continually reminding the 'lads' to do things carefully and in a particular order. When a particularly challenging task arose, the father did it himself. It was not clear whether he did not trust the 'lads' or whether he wanted to be the one to take the risk in case it went wrong.

The transmission of information from employees to managers and owners was especially demonstrated through an example of field notes (see Vignette 4.2) taken during an onsite meeting at a risk control

consultancy. The vignette illustrated preferred styles of communication and perceived company dynamics in smaller companies as influencing successful uptake of key OSH-messages.

Managers, owners, and directors of SMEs and micros also described drawing on the experience of employees, who had gained skills, knowledge, and competencies from working in other settings, to help them navigate the compliance requirements of the wider OSH environment. In one example, an executive director of a micro-theatre company recounted how a previous employee who had worked for the British Broadcasting Corporation (BBC) had assisted her to put in place a company policy and procedure to comply with the wider regulated-context.

Vignette 4.2: Communication in a risk control company

During my first onsite meeting with the Managing Director of a small risk control consultancy he motioned for us to sit at a round table located on the edge of an open-plan office where staff worked at their computers and desks. I noticed that we sat here, rather than in his office which was separate from this space, because it was different from my meetings with managers in our previous research in large organisations which had occurred in private offices or dedicated meeting rooms. I felt that this decision implicitly reflected a sentiment communicated on a sign attached to the office door which read (to the effect of): 'our door is always open'.

Techniques of 'open' communication were reiterated subsequently during an interview. The Managing Director explained how regular learning sessions, or (what he called) "teach ins" and "round table events", were important opportunities for staff to get together at this table to discuss, reflect on, and share their experiences:

> "We do it both sides, actually. With the safety side obviously, as we've said, but we also do it on the technical side. Our surveyors will be out, and they see something unusual that they haven't seen before. Those surveyors are very, very experienced. If they haven't seen it, the odds are I haven't seen it. So they would come in, take a picture, sit round the table 'I saw this' 'right-o boys, look out for this'."

These sessions were considered an integral part of continuous staff training:

> "We do put great store in training. Every January we have a big event […] It's a quiet period for us. When people first come back in January, there are no jobs. We have to pay our staff, so we have quite a few training events. We have smaller versions throughout the year, around this table. If we have to change anything, round this table. Changing guidance or legislation, round this table. So people expect that […] They respond, I think they respond."

These insights suggested a particular understanding of desired and effective communication – that is, communication which is a two-way feedback between management and workers; face-to-face and in-person; incident based, exploratory and reflective; and regular and continuous.

4.4   Enablers and barriers to acquiring new OSH knowledge

Figure 4.4 provides a summary of the motives and barriers to acquiring new OSH knowledge in SMEs and micros. Some of the motives and barriers mentioned by owners and employees were **internal** to the person concerned – their perceptions, experiences and attitudes; others were **external** to the individual in question – motives and barriers within the organisation or the broader business environment. In some cases, a person's acquisition of new OSH knowledge might be influenced by a number of factors. For instance changes in

legislation or industry practices might create a need to find new OSH information, but the person concerned might have difficulties understanding or interpreting the information provided to them. The motives and barriers in Figure 4.4 are discussed in further detail as follows.

Internal

Motives		Barriers
Need to check compliance Desire for career progression Lack of knowledge Experienced a problem/incident Want to indemnify themselves Concerned about safety		Difficulties understanding information No perceived need for information Have not received the information New to the job Lack of time
Changes in legislation Client/employer requirements Changes in industry practices New material/equipment New type of work Employing people		Relevance of information Usefulness of information Cost of information Accessibility of information Method of delivering information

External

Figure 4.4: Motives and barriers to acquiring new OSH knowledge

4.4.1   Motives for acquiring new knowledge

There were a number of internal motives to acquiring new OSH knowledge in smaller organisations. For some people, the desire for new knowledge was about seeking reassurance that they are compliant - indeed, one sole trader in the construction industry suggested that tradespeople feel under pressure to attend OSH training courses in order, he said, to indemnify themselves in the event of an accident. This desire for reassurance was closely linked with people feeling that they lacked knowledge of a particular aspect of OSH, either because they were inexperienced or due to some external change, such as the introduction of new legislation or equipment. For example, an administrator in a

> *"If I employed a lot of people now, it would be training courses, training courses, training courses. But then you've got your prices have got to reflect that because these are all expensive.*
>
> *(Sole trader, contract gardener)*

micro physiotherapy practice said that she would like to know how to use the defibrillator that had recently been installed in the practice's reception area, as knowing how to use it would make her feel *"more comfortable"* in the event of an incident.

Changes in OSH legislation and regulations were a frequently mentioned motive behind smaller organisations wanting to acquire new knowledge. An electrician that we interviewed explained how he had to keep abreast of regulations and take exams every so often so that he can continue to trade and be sure that his work complies. For some businesses, awareness of the wider regulatory and legislative environment was peripheral to their work, whereas for others it was more central. Such differences in levels of awareness were influenced by the type of work companies did and the personal interest of the individuals concerned. For instance, discussions with the managing director of a small risk control consultancy foregrounded the company's knowledge of the regulatory environment in which the company worked: both in terms of gaining information (e.g. changes to safety or technical standards), but also the professional role that he perceived himself and the company to have played in shaping industry-wide guidance (especially) in the area of asbestos management through consulting, training and expert-witnessing work. However, he felt that smaller companies than his (i.e. micros) would not generally share this awareness of OSH regulations, or know where to seek information about them.

> *"I think if it relates to regulations and changes in regulations then you need to understand it and you need to be able to make sure that how you work complies with it"*
> *(Landlord, micro public house)*

Clients or customers can also create a need for new knowledge, particularly when the clients are larger organisations that have specific OSH requirements. This was especially the case in the construction and logistics sectors, where sole traders and micro companies can be found operating as subcontractors in larger supply-chains, but also in some other sectors, such as when a sole trader physiotherapist is trading within a larger practice. In some cases clients (in this case the principal contractors) can be very prescriptive about the way in which the subcontractor acquires new information: for example, the owner of a haulage company described how for certain jobs he can be required to do the same OSH training that his client provides for its employees; and subcontractors working on larger sites are required to receive an induction and familiarise themselves with OSH information provided by the principal contractor. For employees in smaller companies, their employers (owners and managers) were the primary motive for acquiring new OSH knowledge. In some cases, new OSH knowledge was required in order to gain promotion within the company or be allowed to do a particular type of work.

4.4.2   Barriers to acquiring new knowledge

The most frequently mentioned barrier to acquiring new OSH knowledge was that the person in question had no perceived need for it. In most cases this was because they felt that their working practices were already safe and that they had sufficient OSH knowledge, based on their experience and years spent in the job. Some business owners felt that they were already subject to too many rules and regulations and that further OSH information would simply be an unnecessary burden, particularly since such businesses are often 'time-poor' (*"Don't get bogged down in HSE stuff just make safe decisions on site"*). The cost of acquiring new knowledge was also a barrier for sole traders and smaller micro organisations. An electrician working in the construction industry explained that it can be expensive to keep on top of the OSH requirements of larger clients and contractors, especially in a competitive market where it is difficult to pass the costs on to clients. Elsewhere, a contract gardener said that he had been working on his own for so long that he tends not to pay to attend training courses anymore but instead relies on hearing *"on the grapevine"* about any changes in

> *"Things don't tend to change. New information is generally related to the job in hand or the project I am working on, not really to do with health and safety."*
> *(Sole trader, construction)*

legislation or regulations. One participant suggested that he would absorb OSH knowledge more readily if it improved the financial performance of his business.

The nature and accessibility of the information available to SMEs and micros can be a barrier to seeking and acquiring new OSH knowledge. For instance, an employee in a small healthcare organisation described how she received longwinded emails *"full of a load of mumbo-jumbo"* from the local authority and industry regulator, and that *"wading through"* and *"deciphering"* such information can be *"time consuming and boring"*. She felt that such information was *"not helpful"* and often she does not understand it. Other interviewees described OSH information as *"mind-boggling"*, *"confusing"*, *"tedious"*, *"contradictory"*, *"over-complex"* and *"a bit anal"*, and pointed to the problems of *"jargon"* and *"abbreviations."* In some cases, the information was not seen to be relevant to a person's particular (small business) situation. One healthcare worker (and micro business owner) commented on how the information provided by her professional body

> *"Sometimes it can be difficult keeping on top of changes to the various different standards we have to comply with so food standards, HSE, employment law and so on"*
> (Owner, micro bakery)

was *"very NHS biased"* – relevant to managers of a hospital department but not really relevant to or useful for her micro business. Elsewhere the owner of a micro catering company explained how they received leaflets from her local authority notifying them of new legislation, but that she does not *"take a lot of notice of them"* because they are not relevant to her business.

The way in which OSH information is delivered to small businesses can also influence how the information is perceived. A sole trader in the construction industry explained how, from his experience nobody reads the hazard boards on construction sites – they look at it when they first start on the site, but then become desensitized and ignore it (e.g. Photo 4.1), often because it is in the wrong place. He also felt that the character and attitude of the person delivering the OSH briefing would influence whether or not people would listen to it – sometimes supervisors would just go through the motions and the people being briefed would therefore not pay attention to what was being said.

Photo 4.1: PPE sign by site entrance ignored by micro construction workers (Photo Gibb)

Interestingly, some participants expressed a view that, differing from other aspects of their work, the wider regulatory and legislative context was something that they had to take the initiative to seek out, rather than people approaching them with information – OSH information did not 'flow' to them like other forms of information relevant to their businesses. For instance, the manager of a micro heritage railway felt that it should not be his role to find out about changes in legislation and regulations affecting his business, and that the government department responsible for enforcing the changes should be the ones to tell him.

4.5 Reasons for healthy and safe or unhealthy and unsafe working

To encourage engagement and avoid defensive responses, our focus in the interviews was to ask about safe behaviours rather than unsafe behaviours. We also acknowledge that our participant recruitment process would tend to bias the sample and include more interviewees who were positive about OSH and more likely to claim that they worked in a safe and healthy manner.

Notwithstanding, owners and employees of smaller organisations cited a variety of reasons why they (try to) work in a healthy and safe manner, the significance and interplay between which varied depending on the person concerned and the context within which they were working. As summarised in Figure 4.5 and discussed in the following sections, some of the reasons cited relate to the **individual** – internal attitudes or beliefs or influences external to a person that **motivate** them to work healthily and safely. Other reasons cited by interviewees relate to the **organisation** – internal or external **drivers** of OSH in the workplace.

Internal

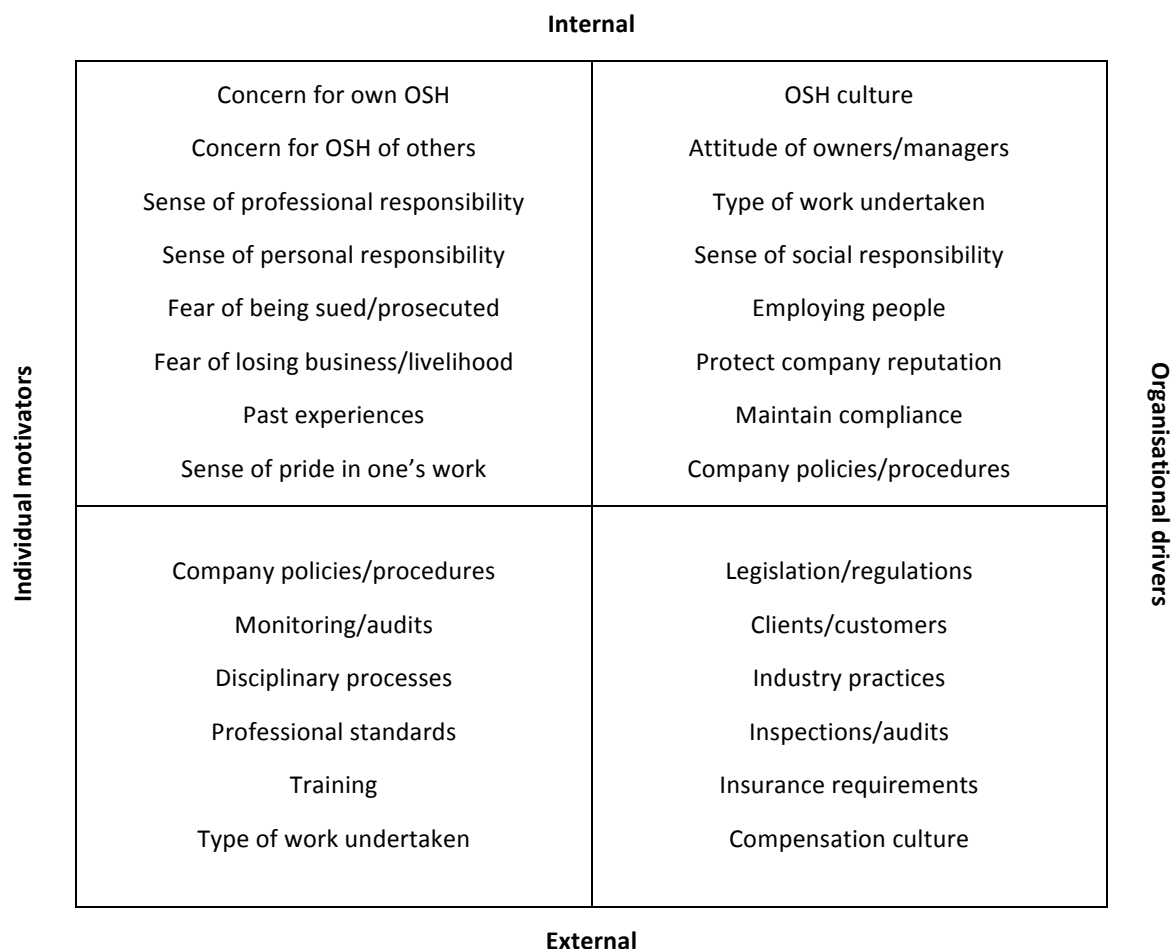| Individual motivators		Organisational drivers
Concern for own OSH	OSH culture	
Concern for OSH of others	Attitude of owners/managers	
Sense of professional responsibility	Type of work undertaken	
Sense of personal responsibility	Sense of social responsibility	
Fear of being sued/prosecuted	Employing people	
Fear of losing business/livelihood	Protect company reputation	
Past experiences	Maintain compliance	
Sense of pride in one's work	Company policies/procedures	
Company policies/procedures	Legislation/regulations	
Monitoring/audits	Clients/customers	
Disciplinary processes	Industry practices	
Professional standards	Inspections/audits	
Training	Insurance requirements	
Type of work undertaken	Compensation culture	

External

Figure 4.5: Motives and drivers behind healthy and safe working practices

4.5.1 Internal motivators of individuals

At an individual level, a fear of being hurt or injured was the most frequently cited motive for taking OSH seriously in the workplace. Working in a healthy and safe manner was about *"self-preservation"*, *"looking after yourself"* and *"wanting to go home safe"*. People tended to explain their fears and concerns by making reference to specific hazards arising from their work, such as falling from a roof or lifting a patient.

For some people, concerns for their health and wellbeing were reinforced by the knowledge that being injured in the workplace could jeopardise their livelihood – a particularly important issue for sole traders and smaller micro organisations, for whom being unable to work would mean lost income. One participant described this when reflecting on the experience of starting his own company: *"If something went wrong, you'd be extremely sensitive to it because it would be your livelihood at stake every single time, so you just have to learn, sink or swim."*

> *"You have to because the job is actually quite dangerous - handling large trays and very large hot ovens you have to know how to take trays out safely and without burning yourself"*
> *(Owner/manager, micro bakery)*

In other cases, these concerns were underpinned by past experiences, such as having been injured previously or witnessing unsafe working practices. Indeed, one owner of a micro construction company explained that one of the reasons he had set up his own business was because he had experienced bad practices and corners being cut when working for other construction companies.

A person's past experiences influenced attitudes to OSH in other ways too. For instance, a pub landlord interviewee described himself as *"health and safety potty"* because he had worked in an OSH role in a previous job. In contrast, a recently qualified electrician explained how his lack of experience in the job made him feel *"paranoid"* about OSH, such that it was constantly on his mind.

Peoples' desire to work in a healthy and safe manner was also motivated by concerns for the wellbeing of others - colleagues, employees, customers or members of the public. Indeed, for some people, the fear of hurting or injuring someone else was their primary motive for healthy and safe working, such that they would have lower thresholds of acceptable risk for themselves than they would have for others. Family relationships in some micros would support this view that individuals would be likely to have a greater level of care than if they did not even know the people that they were working with (as is often the case in large organisations). However, concern for the safety of others was partly about the fear of being prosecuted or sued (particularly by members of the public) in what is seen to be becoming a much more litigious world. Taking OSH seriously was therefore a way for sole traders and small business owners to gain

> *"I certainly wouldn't take a risk that could cause any problems for the public or anybody else that's working with me because I don't want that responsibility. I don't want it on my conscience if somebody gets hurt"*
> *(Sole trader, electrician)*

reassurance and peace of mind that they were compliant. However, it was also about peoples' pride in their work and a genuine desire to operate professionally and responsibly – not just fulfilling a legal duty of care, but a moral responsibility to do the right thing. For some people working in a healthy and safe manner was more about a sense of personal responsibility (*"I wouldn't do anything different than what I'd do for my mother"*); for others it was very much a feeling of professional responsibility (*"I'm a nurse. You don't take risks"*), an issue that is discussed in further detail as follows.

4.5.2 External motivators of individuals

Individuals' concerns for OSH were also motivated by factors external to themselves (Figure 4.5). For instance, people working in regulated occupations, such as nurses, electricians and gas engineers, talked about how their concerns for OSH were underpinned by professional standards and codes of practice in their industry. In other cases, OSH was seen to be an intrinsic part of a person's job, either because their role within a company

meant that they had formal responsibility for managing OSH or that their activities were in some way hazardous (*"I need to make sure that I am working safely - I am working with animals"*).

For larger SMEs, external motivators tended to take the form of more formal company policies and procedures, backed up by monitoring, training and disciplinary processes, which acted as a 'conduit' for external organisational drivers, such as legislation, regulations and client requirements. In other words, it appears that, in these (relatively

> *"One of the focuses of my day-to-day working life is around safe guarding residents, safe guarding staff, safe guarding the company, however that might be within healthcare, that might be within health and safety and everything that that covers."*
> *(Manager, medium-sized care home)*

larger) organisations, employees' concerns for OSH are more likely to be motivated by internal organisational factors. For sole traders and smaller micro organisations, however, these motivators were generally less important, partly because they do not have formal internal processes and procedures in place, but also because they do not distinguish between themselves and their business – they <u>are</u> their business.

4.5.3   External drivers for the organisation

Participants in our research made reference to a range of external drivers of OSH in their organisations. Perhaps unsurprisingly, legislation and regulations were mentioned frequently as a driver for healthy and safe working – *"if it's a legal requirement then you just have to do it"* - although this obviously raises the question of whether they are doing it to stay safe or to stay compliant (particularly in cases where regulations are backed up by audits and inspections). There was a sense that OSH had become increasingly legislated and many people had mixed views about the regulations affecting their work, which were seen as *"draconian"*, *"daft"*, *"restrictive and "impractical"*. For instance, when asked what drives his company's approach to OSH, the manager of a (micro) heritage railway company stated that legislation is the number one influence, but that that they are (in his view, unfairly) governed by the same legislation as mainline train operators, even though their work, and the context within they work, are very different.

Clients and customers were also seen to be an important driver behind healthy and safe working practices in smaller companies. For instance, in the construction industry, larger clients tend to be more prescriptive about how smaller contractors and members of their supply chains should work on their premises - contractors might be issued with a job description, and have to follow the procedures that the client requires. Smaller organisations are therefore required to take OSH seriously if they want to work on such contracts. In

> *"I know one or two have been sent from one of the hotels we work at, working at height, nobody foots on the ladder, you know, ladder not tethered, they would have just got sent off site"*
> *(Sole trader, contract gardener)*

other contexts, clients may be more detached and less prescriptive, particularly when contracting with larger organisations. The manager of a medium-sized medical practice described how his company's contract with the NHS would be put at risk if they breached OSH guidelines, and that the NHS had expectations around the standard of infection control, cleanliness and premises. However, he also

highlighted the friction that can occur as a result of the difference between what he saw as the medical practice's *"lighter touch"* approach to OSH compared to patient safety and the *"tick-box mentality"* of people working in the NHS.

4.5.4   Internal drivers for the organisation

Employing people was considered to be an important internal driver of OSH in SMEs and micros, primarily because of the legal obligations of being an employer, but also because of the sense of responsibility that employing people brings with it. However, the employer/employee relationship in SMEs and micros was not always clear-cut. For instance, in some sectors, such as agriculture and construction, many workers were talking, acting and treated like 'employees' but were in effect officially operating as sole traders. This blurring

of relationships can create a grey area when it comes to peoples' legal and ethical responsibilities, and ownership of OSH. In particular, it can lead to small business owners abdicating responsibility for people that are, in essence, acting as their employees.

4.6   Approaches to enacting OSH knowledge

Figure 4.6 provides a summary of the ways in which owners and employees in smaller business enact, or put into practice, their knowledge of OSH. Our research revealed four main types of enactments: ones that involved gathering information; ones that involved sharing information with others; ones that involved doing something; and ones that involved avoiding doing something. Some of these enactments were **relational** - that is to say, they involved other people; others were **individual**. In some situations, actors may use multiple enactments in order to maintain a healthy and safe working environment. For instance, the owner or manager of a business might: observe her employees; tell them if they are doing something unsafely; demonstrate how the task can be undertaken safely; and then observe her employees again to confirm that they have adopted the safer practices.

4.6.1   Gathering information

Gathering information about one's working environment and the people around was a common form of enactment. The most frequently mentioned way of gathering information was to observe employees or colleagues. Constantly *"walking around"* and *"keeping an eye"* on workers was seen to be an important way for managers to maintain a safe working environment and ensure peoples' wellbeing, by spotting and preventing potential problems before they occur or develop into more serious incidents. For instance, the owner of a small mining company explained how he would watch employees and stop those that failed to follow the correct (three points of contact) procedure when climbing into large trucks. However, observing workers was not seen to be practical in all situations, such as in agriculture where farm workers might be dispersed geographically or in construction when workers from the same company are working on building sites in different locations.

"It is about observation of staff's practices, and it's also observation of the environment. And obviously we have maintenance people who walk the building on a daily basis."

(Manager, medium-sized care home)

The other commonly mentioned ways of gathering information took the form of individual enactments: assessing risks and being aware of and thinking about what you are doing when carrying out your job. These enactments were often seen to be intuitive - a function of common sense and experience. For instance, a receptionist in a micro physiotherapy practice described how, when preparing to lift an object, such as a box of files, she would assess how heavy the object was by looking at it and then checking the areas where she was moving the object from and to. Similarly, the manager of a micro manufacturing company explained how a potentially dangerous activity - in this case using a table saw - could be done safely by working conscientiously, slowly and steadily. He suggested that it was about not being blasé, but making a planned, consciously thought-out action. In the agricultural sector a number of interviewees stressed the importance of staying alert and not being complacent, particularly when working with large, unpredictable animals. Such actions were seen to be about *"looking after yourself"* and not putting yourself in danger or harm's way - not being complacent or cutting corners.

Individual

Relational

Ask for something to be made safe
Be open and honest
Demonstrate something
Develop a mutual understanding
Document risks
Keep people informed
Make others aware of hazards arising from your work
Refuse to do something
Report/escalate problems
Set a good example
Stop someone from doing something
Tell someone to do something a certain way
Tell someone that they're doing something wrong

Share information

Ask for clarification
Ask for confirmation of understanding
Ask for help
Ask how to do something
Assess risks
Be aware of what you're doing
Be aware of what others are doing
Check your/others' work
Keep an eye out for problems
Observe colleagues
Read the operating instructions
Seek advice
Think about what you're doing
Undertake following up monitoring
Use rules of thumb

Gather information

Approaches to enacting health and safety knowledge

Avoid doing something

Don't rush things
Don't take risks
Don't wear jewellery
Don't work alone

Do something

Adapt good practice to you're own needs
Assume everyone knows nothing
Be cautious
Be sensible
Change supplier
Do something differently
Follow the rules/procedures
Give people tasks that they are capable of
Have a positive attitude
Help someone
Keep things tidy
Make sure people behave responsibly
Make something safe
Plan your work
Take a break
Take someone's place
Treat things with respect
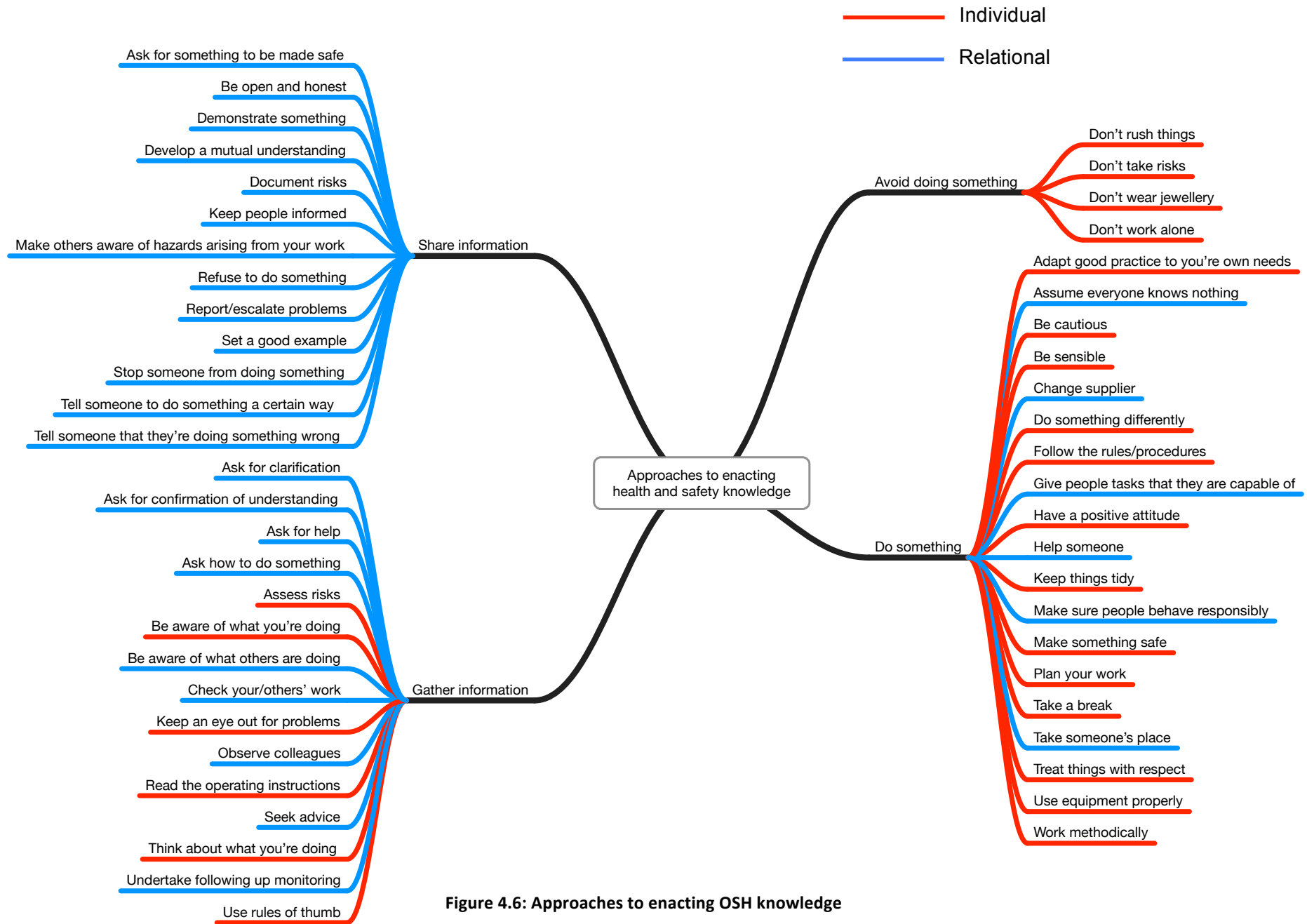Use equipment properly
Work methodically

Figure 4.6: Approaches to enacting OSH knowledge

4.6.2 Sharing information

Working healthily and safely was also seen to be about sharing information with other people. More often than not this was achieved by talking to someone, but sometimes information was conveyed in writing (for instance, when documenting or reporting incidents) or by setting a good example (particularly when working with a less experienced member of staff). Sharing OSH information verbally was found to be more difficult in situations where people are disconnected temporally or geographically. For example, the manager of a care home explained how communication could be a problem because people work shifts. In such cases, owners and managers may resort to the use of more formal methods of sharing information, such as emails, signage, notice boards and incident reporting systems.

The most frequently cited examples of sharing information was asking or instructing someone to do a task in a certain way, or asking or instructing them not to do something. In some cases this was achieved through training, such as inductions and briefings, in others it was through hands-on management and supervision – often owners and managers used a combination of both these approaches. However, some micro business owners explained that they considered their colleagues were experienced enough not to need telling how to do something -

> *"We have a system whereby if there is anyone new starting they must work so long with one of our experienced staff. They are all shown how to do things and told how to do things"*
>
> *(Owner, micro agriculture)*

they *"know how to do their job"*. Others felt that they could not force people to do something, particularly when the person concerned was not an employee. Sharing OSH information also took the form of other enactments, including: asking for clarification or advice: asking for something to made safe; and making others aware of hazards arising from your work. The latter was seen to be particularly important when working amongst people from different trades or near members of the public.

4.6.3 Doing something

Doing the task safely

In addition to sharing or gathering information, participants in our research also described a range of other ways in which they work healthily and safely in the workplace. The most frequently cited way of staying safe was to follow rules or procedures - indeed, people not following rules and procedures was seen to be a barrier to healthy and safe working. Some rules and procedures were specific to the company in question - safe practices that had been developed and adopted over time. In some cases these rules and procedures were unwritten. For example, a farmer explained how he had developed safe ways of working with animals in order to ensure that he and his family stayed safe. Others rules and procedures were either accepted industry practices or legal requirements that employees had to comply with, examples being the rules governing infection control in healthcare or hygiene standards in the food industry.

> *"Look out for yourself and always follow guidelines and what you have been told to do by the organisation."*
> *(Driver, medium-sized haulage firm)*

It is important to point out that being compliant does not always mean that something is safe, or that being non-compliant does not mean you are not safe. Photo 4.2 shows four workers from a micro construction company. Normally there were only two operatives on site, who were brothers. For this operation they had brought in two more colleagues as the project 'could not afford' a mobile crane to offload and position the precast concrete floor beams. Despite the sign on the gate regarding minimum PPE, they are not wearing helmets or hi-vis jackets. However, they have chosen reasonable equipment to lift the beams and they did make efforts to clear the path to walk the beams into place. Their posture is fairly good, they are wearing protective footwear (with dropping the beam on their foot being one of the more likely risks) and one of the

workers has chosen to wear gloves. They also spent some time discussing and planning the more awkward lifts (Photo 4.3). Their behaviour suggests that they were motivated by getting the job done in a way that would not injure themselves or each other but that they were not particularly motivated by complying with regulations or site rules.

Photo 4.2: Non-compliant PPE but fairly good ergonomics and OSH practice on the aspects that the workers considered important (Photo Gibb)**.**

Photo 4.3: Operatives planning awkward lifts, regarding method as well as location (Photo Gibb)**.**

The other ways in which in people tried to work safely included being cautious, treating things with respect and behaving responsibly. These enactments were particularly evident in situations where people could cause serious injury to themselves or others, for instance when working at height or with hazardous equipment, heavy loads and large animals. For some people this was how they were expected to work by their employer, for others it was how they had chosen to work based on their personal experience or fear of being held liable. For instance, one employee in a micro manufacturing firm explained that he now approached things more cautiously after he had made a mistake in his previous job, in which he jumped out of a vehicle whilst carrying something on his shoulder, causing damage to his back.

> *"So yeah, quite often if we're doing something that's fairly risky then I'll take it upon myself to do it myself rather than put them in that position."*
> *(Owner, micro construction)*

Doing something to make the environment or task safer

Making things safe and keeping the workplace tidy were also two enactments that people discussed in interviews. Such enactments were often based on personal experience in the job and therefore considered to be common sense. For example, a sole trader physiotherapist described how, prior to seeing a patient she would assess her treatment room from a patient's point of view, and remove any potential obstacles or trip hazards. However, she would also make sure that the bed was at a height that meant she could treat the patient without harming herself, describing this as *"forward thinking".* In another interview, a construction worker explained how he and his colleagues were required to tidy up after themselves when working on site, a behaviour that was enforced by the site manager.

4.6.4   Avoid doing something

Participants in our research also made reference to actions that they avoided doing in order to remain safe in the workplace. Avoiding working alone was one such enactment. For instance, a sole trader physiotherapist described how, if she has a client who makes her feel nervous, she will arrange to see the client when she knows a colleague will be working next door, without necessarily letting her colleague know that she is concerned. Similarly, if she is working alone, she will let the florist over the road know. Elsewhere, a dairy farmer explained that milking is always done with two people, never one person on their own, and that his workers must always carry mobile phones with them when working out in the fields on their own.

> *"If you're strimming and there are people walking by there is always a chance that something could fly out and hit somebody, so you've got to use precautions - you wait till they've passed or you don't do it"*
> *(Sole trader, contract gardening)*

The physical presence of a phone evidently helped create an infrastructure of support through its potential to connect his workers with others during an emergency situation. Interviewees also talked about not taking unnecessary risks or rushing tasks in the workplace. Indeed, the managing director of one small mining company described how his company had "roughed the road up" to discourage workers from driving vehicles too quickly around the site; a behaviour which he felt was down to peoples' complacency.

4.6.5   Enacting OSH in the home

The home as workplace

One specific context in which OSH is enacted and that is largely overlooked within the current literature is the home-as-workplace. For some workers in our study the home was simultaneously a place to live and a place to work. This was especially revealed through the short-term ethnography where the home was the work-base for several participating practitioners including: the owner-manager of a removals company, a self-employed mobile beauty therapist, and the managing director and administrator of a theatre company. Our

study provided initial insights (which would benefit from further research in this area) on how OSH is enacted in the context of the home-as-workplace, or the ways that people perform OSH when working in and through their own homes. The short-term ethnography revealed the kinds of routines, habits, and techniques that workers in smaller companies use to demarcate work from home-life in order to create desired affective experiences (or those that were positive, relaxing, and/or happy) and which were understood to maintain mental and physical wellbeing. This was especially revealed through collaborative, participatory research activities with workers from a micro theatre company (see Vignette 4.3). Such insights hold rich scope for further investigating the ways that workers understand, experience and enact-OSH through performing wellbeing when working in and through their own homes.

Vignette 4.3: A guided tour of the home-as-workplace

I visited the Managing Director and the Administrator of a micro theatre company (who are mother and daughter) at their office-base in the family home. I asked the Director to show me where the office had been located during the 23 years of the companies operation, and invited her to reflect on her experiences of the home-as-workplace to consider how she enacted OSH in this environment.

As we looked at different spaces where the office had been located (including an under-stair cupboard, bedrooms, a purpose built basement conversion, a sewing-room, and a dining-room) the ways that the home as living-place and the home as work-place were experienced was revealed. The tour indicated how both 'home' and 'work' were brought together and performed through a guiding logic of OSH broadly expressed through notions of worker well-being. Managing a work life balance was evidently experienced as key to ensuring personal and professional well-being. This was expressed by the Administrator during an interview:

> "It's really easy when you work from home to step into the office at seven thirty when you get up, just before you get your breakfast, to just quickly check emails, and then it's eleven o'clock and you're still in your pyjamas or things like that. It can - working from home - it can really transfer over into your personal life. There is certain changes I've made her make [the Director], things just as simple as having a laptop for personal stuff and a desktop computer for work [...] Simple things like that, making her go and just take the dog for a walk, or take a break, or when it gets to eleven thirty that's time for a tea break and you need to give your eyes a rest and also making her have a proper eating routine essentially."

The tour emphasized a concern with differentiating work and home life. For example, when the Director showed me a basement conversion that had been purpose built for an office space she recounted how she enjoyed physically leaving the house to walk down steps to access it:

> "And I suppose the stairs symbolised when we used to go to work. You come out that door and you go down the stairs and you went into work, you actually had to physically leave the house to go to work, and that was one of the good things about it at that time."

Techniques and routines intended to demarcate work from living aspects of the house had evidently (albeit *not always purposefully*) travelled with the workers as the office had since been relocated. For example, in the current office space (once a dining room) the Director described typically shutting and bolting the door when they left at the end of the working day. While at first driven by a need to keep a pet out of the room, she mused that this was experienced positively:

> "Because again, it's like the rest of the bedrooms and the living room and things like that are very much those things, whereas they used to be multipurpose. I think I like it now, having it all separate so that it is, let's say, it's a house or it's the office."

Such statements indicated a concern with making the house 'feel right' when being used for both living and work purposes. Through everyday techniques and routines these practitioners demarcated work from home-life in a way that was understood to maintain good mental and physical well-being. This included things they felt they *needed* to do to create the desired affective-experience of the home-as-workplace, but also those that were influenced from a range of different sources including: talking with friends and family members, attending a business seminar where a guest speaker spoke about strategies for managing work related stress, and embodied, sensory ways of knowing such as paying attention to bodily response to judge when to take a break away from the office and/or computer screen. These insights begin to point towards the ways that practitioners understand, experience, and enact-OSH through performing well-being when working in and through their own homes.

Working in your client's home

Our earlier IOSH research with large, networked organisations (Gibb et al., forthcoming) identified examples of working in the client's home, particularly for healthcare and logistics workers in the community. This environment created some tensions and conflicts between care for the customer or service-user and their home and the OSH of the individual workers. The previous study did not cover construction work done in people's homes as this is generally done by small or micro enterprises. An example of this aspect, evidenced in this study, was a micro construction enterprise where the workers placed dust sheets on a steep stair case in order to protect the carpet whilst they removed demolition spoil by hand from the house. Larger organisations or larger projects may well have invested in clear plastic adhesive-backed protection, although it is acknowledged that this may still create a slip hazard (Photo 4.4).
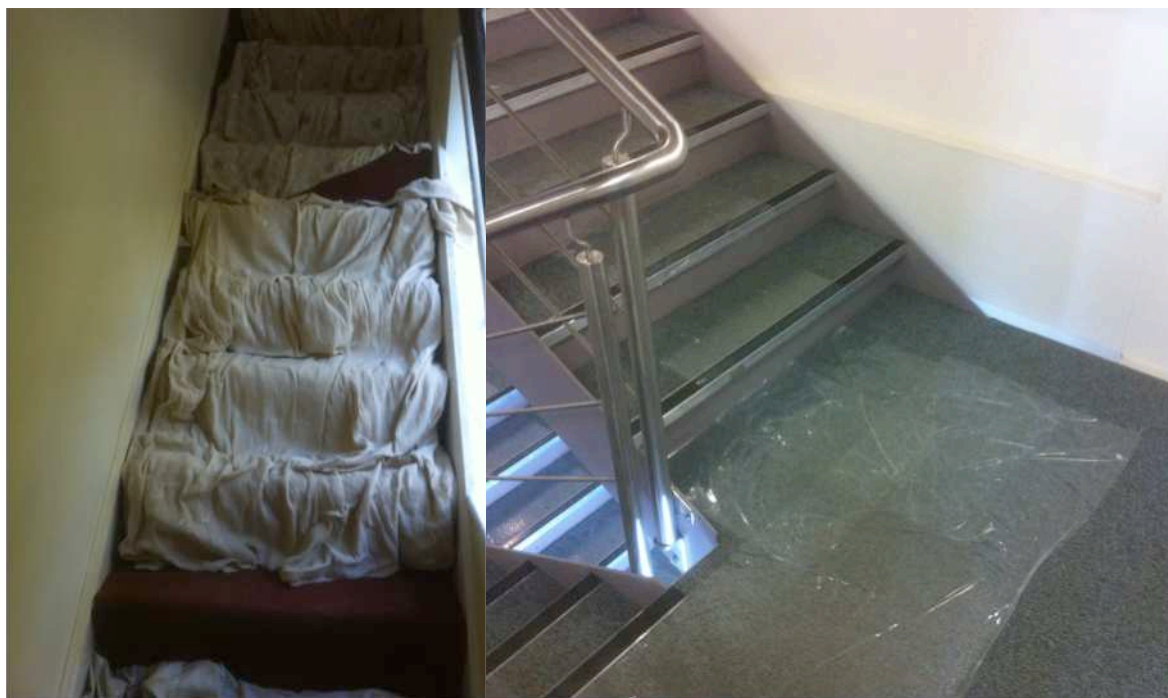

Photo 4.4: Trip hazard from dust sheet used by micro organisation to protect homeowner's carpet with more appropriate protection used by a larger firm on a major commercial project (Photo Gibb)**.**

4.7 Enablers and barriers to healthy and safe working

Figure 4.7 summarises the enablers and barriers to healthy and safe working in smaller organisations. Some of the enablers and barriers were specific to **individual** owners and employers, whereas others were related to the **organisation** or factors **external** to the organisation.

4.7.1 Individual enablers and barriers

At an individual level, participants in our research stressed the importance of common sense and experience as enablers of healthy and safe working – being able to use your own skills and personal judgement to determine when something is safe or unsafe. This approach is explored in more detail Vignette in 4.4, which illustrates the ways that safe working (sometimes) requires practitioners to improvise and/or adapt their practice to changing workplaces and scenarios. One sole trader in the construction sector described how, when he arrives at a job, the customer will tell him what they want doing and he then *"susses out"* what needs to be done and carries on and works safely; if he arrived at a place that was unsafe he would choose not work there. In some cases,

> *"It's a question of if you know where you're working, what you're working with, where all the on/off switches, stop buttons and everything is. The one you might choose to use isn't necessarily the obvious one, it's the nearest one"*
> *(Manager, micro manufacturing)*

people would draw on the collective experience of their colleagues, who they used as a sounding board for resolving OSH problems. For instance, a physiotherapist that we interviewed explained how she and her colleagues liaise with each other, and that if she had an issue that she was struggling with, in terms of her own body, she would talk to one of her colleagues about it.

Personal protective equipment was the most commonly mentioned enabler of healthy and safe working across a range of sectors, although some interviewees suggested that they used their personal judgement about when to use such equipment – being mindful of the task in front of them and the most appropriate protective equipment required to complete that task safely. There were instances of people describing items of

> *"You kind of interpret how best to do things to look after yourself and look after other people. The company supplies protective clothing and things like that, but otherwise it's common sense like don't hit sharp edges hard and don't touch hot things for long periods of time, that kind of thing."*
>
> *(Work, small heritage railway)*

protective equipment as *"restrictive"* or *"unnecessary"* in some situations. For instance, a chimney sweep that we interviewed said that he does not like wearing a hard hat because it gets in the way of him being able to see properly, particularly when working in small, enclosed spaces. However, he had to balance that with the risk of suffering a head injury. Elsewhere, a gardener described how the guards on his strimmer were too close to the head, which meant that it was difficult to use – he would therefore move the guards upwards a little bit and compensate by being more aware of people being around him. A further example was covered earlier in section 4.6.3 (see photos 4.2 & 4.3).

	Individual	Organisational	External
Enablers	Skills Experience Personal judgement Personal protective equipment Tools and equipment Common sense Colleagues Concern for OSH Test/maintain tools/equipment Improvisation/adaptability	Established/safe practices Good communication/working relationships Knowledge/information Policies and procedures Regular checks/monitoring Risk assessments Signage Training and supervision Working environment Staff engagement	Other people
Barriers	Complacency/discounting risk Cutting corners/rushing/acting carelessly Not following the correct procedures Not wearing protective equipment Fatalistic attitude Fatigue Lack of knowledge/understanding Lack of common sense	Working environment Breakdown in communication Established practices Lack of staff engagement Lack of time/resources Lack of organisation/co-ordination New types of work Tools/ equipment Personal protective equipment	Adverse weather Clients/customers Other people Rules/regulations Lack of enforcement Suppliers/subcontractors Traffic Working environment

Figure 4.7: Enablers and barriers to healthy and safe working in SMEs and micros

Vignette 4.4: Adapting towards safety in beauty therapy

The theme of adapting towards safety was illustrated through research activities with a self-employed mobile beauty therapist. During an interview she described how working in other peoples' homes required her to adapt to the contingencies of these environments: or as she put it, "I've improvised so many times in peoples' houses. You just have to, because you're going into peoples' homes." Other peoples' homes were experienced by the therapist as being different kinds of environments to the salon:

> "It's different. You're in a salon, you go into a room that's all set up for you. You change everything before your next client. So basically anything that needs cleaned, towels need changed, and everything gets done and set up for your next client going in […] [whereas] if you've got somebody booked in you have to go into their house, you have to get set up, you need obviously set-up time. Things like you're going to do somebody's Shellac [nails] and they don't have a plug socket in the room they want you to sit [in] […] you tell people that you need to be able to go and get hot water. They might not want you going into their kitchen, or they might not have their hot water on so there's no hot water […] plus the fact that people take you into their bedroom […] and you're supposed to set up a plinth in the room to walk around to do a massage. So that can be difficult."

To navigate the complexities of working in other peoples' homes the therapist used trained and formalised capacities to guide her towards safety. For example, she described how practices like wearing a uniform, or sterilising her equipment, hands, and work surfaces, had been carried over into her mobile work from standards she adhered to when previously working in the salon setting. Additionally, she had qualified through professional training (of a National Certificate), and continuously updated her skills by identifying relevant information through speaking with other professionals; her membership in an industry association (British Association of Beauty Therapy and Cosmetology); and by reading industry magazines, articles, and websites.

Photo 4.5: Safe routes towards the home-packed kit (Photo Morgan)

Yet, by accompanying her on a visit to a client's home, I also noticed some of the ways that she supplemented (or added to) these formalised OSH-sources with more adaptive techniques that had become part of her routine ways of working. For instance, when packing the car she showed me "her" technique of strapping the massage bed into the back-seat and of wedging the kit-case between the bed and the driver's seat (Photo 4.5): a technique to safely transport kit developed in response to the experience of equipment moving in transit. For the drive to the property she also switched her phone onto silent to remove "temptation" for answering if it rang, thus balancing her own safety *en route* with the need to be connected to clients while on the move. During the treatment (which was undertaken at a kitchen table) the therapist, on invitation from the client, changed seating arrangements so that she could work from her preferred side. Afterwards, the therapist explained that the client was a regular and was familiar with how she preferred to work, and that changing seating arrangements allowed her to work in a way that "feels right" and is "more comfortable". This was not always the case. Particularly (it may reasonably be assumed) when

working with new or less well-known clients.

The therapist recounted occasions when space constraints or client preference meant she had to undertake tasks in a way that was awkward, less comfortable, and even potentially hazardous to herself:

> *"I was doing Shellac and she didn't have a table, she didn't have a chair for me to sit on, and she said "Well, I'll sit on the couch" and basically wanted me to do it in her lap. And you've got a box […] and it's electricity, so basically how did I improvise? I got my bed. I brought that in. That was fine, so we used that as a table and she had a wee table with things on it and I used that as a chair. It's just a silly wee thing […] and I kept hoping the chair that it wouldn't break (laughs), but I couldn't stand and do it. People expect you to bring everything, they expect you to bring tables and chairs. I've actually now got a table. I've got a small one that I use – I go camping a lot, so I've got one that I use actually for camping. It folds up and usually I keep it in the car, and a stool. A wee one you can fold up, three-legged, it's like a camp stool, so I've got that as well […] It might sit in the car for a year before you use it, but at least you know it's there."*

These comments, and my observations from accompanying the therapist, demonstrated how performing work safely required her to recognise, respond, and adapt her practice to specific contingencies of working in other peoples' homes. Through this process she skilfully blended formalised sources of OSH-knowledge (e.g., hygiene protocol, trained techniques) with more informal and personal ways of knowing including developing interpersonal relationships and shared routines with clients by working repeatedly with them. In doing so, the therapist undertook her work in ways that practically and affectively *felt* right, comfortable, and ultimately safe.

Attitudes and behaviours were seen to be the main individual barriers to OSH in smaller organisations. People pinpointed behaviours such as cutting corners, rushing jobs, not following procedures and not wearing personal protective equipment. These were often seen by interviewees as negative behaviours, which appears to be contrary to our previous work in large, networked organisations where workarounds were often seen as safety-neutral or even safety-enhancing, because they were adapting the principles of the 'rule' to suit the particular situation. However, in this SME-micro research, such behaviours were often attributed specifically to people not using their common sense, or it was put down to people acting carelessly, due to complacency and to the downplaying of risks. For example, the owner of micro physiotherapy practice said that when she was younger she used to take more risks with her

> *"I mean I use several subcontractors as well and they're a lot older than me, and they're kind of set in their ways. To get them to conform to a new practice when they've been doing it for X amount of years in their own way, that is tricky."*
> *(Owner, micro construction)*

own body, whereas now she risk assesses individual patients more thoroughly and determines whether it is safe to use a particular technique. Similarly, one of her colleagues said that *"we get very blasé about it and we just tend to ignore it until we can't do something."* Notwithstanding, we consider that neutral or OSH-positive workarounds were still being enacted as evidenced in the following section.

4.7.2   Organisational enablers and barriers

Formal procedures and informal practices

The two most frequently mentioned organisational enablers of healthy and safe working were, first, formal processes and procedures, and, secondly, informal practices that have developed and become established over time. The former were seen to be essential in larger SMEs, but also had a place in micro enterprises.

Regardless of the size of company, formal processes and procedures were see to be important in more highly regulated sectors, such as healthcare, and higher risk industries, such as mining and agriculture. However, the use of more informal practices was certainly more evident amongst sole traders and in smaller micro enterprises. For instance, one arts and craft sole trader explained how *"…at a workplace, you need clear-cut procedures, you need to follow them, but [at home] you can more or less rely on common sense really a lot of the time."*

Improvised workarounds

As we have introduced earlier (see Vignette 4.4), participants in our research described how safe working, at times, necessarily required that they improvise or adapt their practice to changing features of the workplace and/or work scenarios. They developed - through a process of experiential learning - practices that enabled them to do their work in quicker, easier, simpler, and ultimately (potentially) safer ways. For instance, when observing removals workers pack items in a client's house, the ethnographic researcher noticed that they did not use the punched out handles on boxes but rather lifted these from underneath which they described as feeling more secure. This was an informal, adaptive technique that had developed between workers or, as one commented as he packed items into a box, *"that's a common mistake you see with new guys, they try to use the handle and you should always pick up from the bottom. If I see that I would say to someone pick it up from the bottom. Gradually I just learned it this way."* Such adaptive techniques were routine elements of practitioner OSH, informally shared between workers through working with, observing, and talking to each other.

> *"There is only me and the lad I've worked with for 8 years now and we both have a really good working relationship and we communicate well so that we ensure that what we do if safe. We make sure that we use the necessary safety equipment required."*
> *(Sole trader, construction*

Good practice

Other organisational enablers of healthy and safe working were good communication, good working relationships, and staff engagement. Indeed, a distinguishing characteristic of SMEs and micros was the ability for workers to make suggestions not only to co-workers but also to management, reiterating a point made previously in this report, that configurations of small companies may enable communication to work more effectively in this way. Staff supervision was also an important enabler. For instance, a manager in a medium-sized mining company explained how, after making changes to working practices, he usually increased levels of supervision to make sure that workers adopt the new practices. In small and micro organisations, such supervision was likely to be more informal and less overt, since owners and managers are likely to be working alongside their employees - *"I am always here in the shop as well, overseeing things, so I know what my employee is doing"*.

4.7.3   External enablers and barriers

Interestingly, participants in our research made very few references to external enablers of healthy and safe working - indeed, the only thing that was mentioned as an enabler was *"other people"* outside of their organisation (usually other workers and members of the public) behaving safely and considerately. However, participants did identify a number of external barriers to healthy and safe working.   Rules and regulations were seen to be a barrier to OSH in some situations. For instance, the OSH manager for a mining company explained how, when he takes visitors

> *"Sometimes you'll go to premises which have things considered to be unsafe. So, there could be asbestos there, there could be untidy or unsafe flooring, in which case you have to take a view to sometimes refuse the work because it wouldn't be safe to take on the work"*
>
> *(Sole trader, construction)*

underground, they have to wear ear defenders, but that prevents him being able to talk to them and warn them of potential dangers. He felt that there needed to be more discretion when applying this rule, but also felt under pressure to lead by example.

The working environment was the most frequently mentioned barrier to healthy and safe working, particularly for workers that are 'out in the field' and have less control over their working environment, such as lorry drivers, domestic tradespeople or healthcare workers who visit peoples' homes. As we have suggested earlier, in these contexts the ability of (and necessity for) workers to adapt and improvise towards safety is perhaps especially heightened. In many of these situations, the standard of working environment may be determined by the client or customer. For example one construction sole trader described how sometimes, when subcontracting for another company, he might not be provided with the proper scaffolding or platforms to work on. Elsewhere, a fitness instructor explained how she switched to a new venue because the building she had previously hired for her classes was dirty and unsafe – several times she had found nails and screws on the floor.

4.8   Triggers for changing OSH practices

Table 4.1 summarises the triggers for changing OSH practices in smaller organisations, as cited by participants in our research. Some of these triggers were **internal** to organisations, such as observation and monitoring; others were **external** factors, such as changes in technology and adverse weather conditions.

Table 4.1: Triggers for changing OSH practices in smaller organisations

Internal triggers	External triggers
Company growth	Adverse weather
Discussions with colleagues	Audits/inspections/enforcement
Employing people	Changes in industry practices
Encountered problems/difficulties	Changes in technology
Experience	Client requirements
Feedback from staff	New legislation/regulations
Formal processes/responsibilities	New information/knowledge
Incidents/near misses	New project/client
Monitoring and analysis	New tools/equipment
Observations	Industry body/association
Risk assessments	Sharing lessons
	Subcontractors

"Sometimes it's blindingly obvious - this ain't working, we've got to do something different. Occasionally it's like that. Other times it takes longer for the penny to drop that… we're not doing it right.

(Health and safety manager, mining)

Incidents and near misses were the most commonly mentioned reason for changing OSH practices in smaller businesses. For instance, the manager of a café described how, after his staff kept cutting themselves on new knives that had been bought for the kitchen, he changed the way the knives were stored (blade down in a drawer or in a block) and ensured that they were not left in the sink for other people to cut themselves on.   Elsewhere, the

manager of a small mining company explained that when a near miss occurs on site, a supervisor will meet with the people involved and they will have toolbox talks to address the problems. However, in some cases, the reasons for changing working practices were more subtle and proactive: not necessarily a specific incident or near miss, rather a progressive realisation that a particular practice is not working. This might be due to a deteriorating health problem, for instance a bad back that creates discomfort or prevents someone from doing a particular task, or just the sense that a particular activity is *"hard work"* or unsafe. For instance, a pub landlord described how his staff used to carry empty glasses up and down stairs on a tray, using both hands, creating a risk that they might trip over. He therefore replaced the trays with baskets, so that they can use one hand to hold the stair rail and the other for carrying the basket.

Changes to working practices were also triggered by external factors, particularly client requirements and new legislation or regulations. A number of interviewees suggested legislative changes would be the only reason why they would make changes to their working practices, because then they would have no choice but to take action. However, in some cases small businesses argued that they were unable to comply with new regulations and therefore adopted alternative working practices instead. For instance, a contract gardener described how the restrictions on the storage of pesticides mean that he now uses different methods, even though these are more time consuming and less efficient. Clients were also seen to be an important trigger of changing OSH practices, particularly in situations where

"And as the business has grown, that's become more of a kind of organised thing, rather than just something that you do when you start and that's been forgotten."
(Manager, medium-sized IT company)

smaller businesses were working or subcontracting for a larger client. For example, one sole trader working in the construction industry explained that he uses 110v power tools on larger building sites, because that is what his clients require, but when working for domestic clients he uses 240v power tools instead because he feels that he can work safely with them and that 110v tools are unnecessary.

5 DISCUSSION

5.1 Comparing practices in smaller and larger organisations

By pulling out general themes, as well as exploring specificities of participating companies and individuals, our research has revealed nuances of OSH knowledge acquisition, transfer, and enactment in SMEs and micros. However, one of the objectives of this research was to compare OSH knowledge and practices in smaller organisations with those in larger organisations. In this section we therefore draw points of comparison between our findings in this study and those from our earlier research with large, networked organisations (Gibb et al., forthcoming), thereby allowing differences between large companies and SMEs and micros to be identified while also recognising features that pervade OSH practices across these contexts. It is also important to note that official employee count may not be very helpful as some large companies organise their activities such that they work in smaller clusters and such organisational strategies may lead to them operating more like a medium-sized or small enterprise, or at least like one that is linked to a larger network.

In contrast to workers in larger companies, a distinguishing feature for our participating SMEs and micros was that workers did not appear to regard OSH as something 'owned' by an organisation. Their reflections on their working practices suggested that it was less easy for them to separate OSH from their individual responsibility and jurisdiction. OSH converges through and becomes 'internal' to practitioners themselves and is expressed through their everyday routines and working practices. Hasle and Limborg (2006) similarly found that, unlike larger organisations, business activities in SMEs are largely intertwined with the owner-manager or nominated person taking on several roles within the business. Lansdown et al. (2007) suggest that it may be difficult to prioritise OSH in terms of other business needs such as customer demands, productivity and cost.

We argue that OSH practices in SMEs and micros are (more often) located at the individual rather than the organisational level, and are bound up with a broader notion of 'taking care' of oneself and/or (what could be characterised as) being a 'responsible', 'committed', and 'competent' practitioner. Wadick (2007) found that workers in SMEs want to be safe at work and trust their own safety knowledge developed over years of work. Wrnieniewski and Dutton (2001) provided evidence that micro enterprises have more freedom-authority, autonomy and opportunity to choose good working methods. It may be necessary to take advantage of this to help micros manage their OSH knowledge more efficiently. Interestingly, in our research with large organisations, we found that OSH managers used the strategy of 'making OSH personal', by illustrating to workers the personal consequences of unsafe behaviour, to promote uptake of key safety messages (see Gibb et al., forthcoming).

Working in healthy and safe ways appeared to be understood by participants to be informed not only by the wider regulated context and/or formalised, codified guidance but a range of personal decisions, actions, and techniques intended to ensure their own physical, emotional, and mental wellbeing as practitioners. Everyday routines and habits were discussed and observed, and this extends lines of investigation from our earlier research where we queried *not* how safety could (or should) be made better (a dominant perspective within current safety literature), but how it was *already happening* in a range of often unnoticed and taken-for-granted ways. Significantly, in SMEs and micros - and especially with self-employed and freelance workers - activities and practices from settings beyond the workplace were understood to inform safe and healthy working practices. For example, participants spoke about the importance of ensuring that they ate well (i.e. regularly and healthily), took breaks during their shifts, rested on their days-off, maintained physical fitness through regular exercise (e.g. gym work, yoga classes, or going for a walk on their lunch break), and took precaution to avoid illness (e.g. vitamins, keeping warm in winter, using disinfectant hand-gel). Picking up on these insights, we would argue that, when working for oneself or in a small company, safe working is enacted through a more holistic sense of the individual practitioner.

Another key difference in SMEs and micros was that certain kinds of organisational structure and dynamic were found to have implications for OSH practice. Operating either literally or figuratively to a 'family' model

was regarded as facilitating desired modes of communication that would result in effective OSH knowledge transfer and acquisition. The size of our participating companies, organisational structure (fewer layers between managers and the workforce), and modes of communication (i.e. two-way dialogue, incident-based exploratory and reflective learning, face-to-face interaction) appeared to underpin perceptions of operating to a 'family' model, and more generally promoting sentiments of caring for others within a company. This supports our previous work which introduced the concept of 'communication by action' (Bust et al, 2008) where workmates who know each other well can communicate by *"doing things in particular ways, consciously or unconsciously"* with a nod of the head or a rise of the eyebrows. While not necessarily unique to the SME and micro sector, particular configurations within smaller companies may make the ease of communicating with others in this way work effectively. It could reasonably be assumed that smaller employee numbers make it easier to practically assemble staff for 'face-to-face' meetings, and also workers being situated at a single base rather than - as we experienced in our research with large organisations - being distributed across multiple organisational sites.

SMEs and micro enterprises were seen to operate through a personalised management style where managers were not distanced from workers, but were involved, approachable, and open to worker-driven suggestions. In comparison to large organisations, there were fewer layers between front-line workers and management, and it was also commonplace for owner-managers to have played a dual role, having initially started by 'doing everything' before staff expansion with company growth. Managers thus had a hands-on understanding of the work of their employees. Hasle et al. (2012) highlight that the owner-manager is important in terms of defining OSH culture, it may not be that they are just taking a common sense approach; but instead trying to follow what they experience as a generally acceptable standard for the working environment among stakeholders in a given sector. Moreover, these dynamics were thought to facilitate a greater sense (and actual) responsibility amongst workers of caring for and supporting each other in a way that was perceived different from larger organisations. Workers in small companies potentially 'know' each other in more personal, subtle, and empathetic ways, which may influence how they ensure others' OSH. For instance, several participants described being able to tell from a co-worker's physical appearance, body language and/or gestures if they were feeling unwell, stressed, anxious or tired. Yet, owners and/or managers also emphasized that these dynamics, while desirable and having positive influences on ensuring the OSH of workers, could also sometimes be difficult to reconcile with other aspects of their role: particularly disciplinary procedures and/or enforcing company regulations.

However, the literature suggests that there may be a more sinister aspect to this "personal side of safety." Reasons for the downgrading of risk and a push of social responsibility onto the workers can be found in the close social relationships and the identity process of the owner-manager with their business. Given the close working relationships owner-managers often try to act as responsible people and thus avoid personal guilt and blame if employees should get injured. However, if employees are close friends or family members it is also possible that they may be more accepting of a more ad hoc approach to OSH. There is evidence to suggest that owner-managers seek to recruit more diligent workers whom they trust (Hasle and Limborg, 2006) and that the close physical proximity of the work can allow the owner-manager to detect risky behaviour (Pedersen et al., 2011).

In comparison with their counterparts in larger companies, who are more likely to employ specialists with a specific responsibility for disseminating OSH information to employees, workers in SMEs and micros did not always find it easy to identify specific sources of OSH of information. Often participants in SMEs and micros attributed their OSH knowledge to common sense and experience, much more so than participants in larger companies, who often have access to more formal sources of information with their organisations. SMEs and micros tended to draw upon a diverse range of information sources, including those that are both OSH specific, but also information sources related to issues that helped to ensure worker wellbeing (e.g. rates of pay, working hours). The use of certain external sources of OSH information appeared to be more pronounced in SMEs and micros, particularly clients and customers, suppliers and manufacturers, and OSH consultants.

The latter were seen by some SMEs and micros, but particularly by those in more highly regulated sectors, to be a cost-effective way of 'buying-in' knowledge and ensuring that their companies remain compliant.

There were also similarities between OSH practices in SMEs, micros and larger companies. In our previous research a range of communication channels were used within large companies to formally disseminate OSH information, and this was reiterated in SMEs and micro enterprises that used textual (handbooks, guidelines, contracts), visual (signage), electronic-digital (emails), verbal (training, meetings) and mobile (telephone) methods. Yet, a distinguishing feature appeared to be the emphasis in SMEs and micros on preferred styles of communication, and perceived company dynamics as influencing successful uptake of key messages. As in larger organisations, mobile phones played a key role in facilitating communication at SME and micro sites where workers (including field technicians, removals workers and agricultural workers) undertook their duties away from an organisational base. While in some of these SME and micro enterprises there may have not been access to other forms of electronic-digital communication used in larger organisations (e.g. desktop computers, intranets), it was evident that mobile smart phones were prominent for enabling effective communication to facilitate 'feedback' in real-time (through phone calls, text messages, email, shared and 'synced' diary-functions, and photographs) of any safety or task specific issues. We have previously suggested the inevitability of the use of mobile phones, even where they are expressly forbidden (for instance on many larger construction sites) (Pink et al. 2010).

Networks were seen by SMEs and micros to be important for generating and sustaining work (e.g. utilising contacts in the trade to identify future employment or opportunities for business growth), but they also had implications for OSH practices. Our analysis indicated that networks for SMEs and micros play an important role in OSH practice by facilitating information transfer (particularly through word of mouth), providing necessary infrastructure for safe working, and enabling practitioners to make decisions about who they do (or do not) work for. However, unlike large organisations, networks were not always formalised or already in existence; they were often understood by practitioners to be informal and indirect and, though they might be, they were not necessarily task and/or project-specific, as they tended to be in larger organisations – they were perceived to develop more incrementally and indirectly. Our research revealed the ways that workers might create networks when these did not otherwise exist, or (more generally) feelings and infrastructure of being 'supported' or 'connected' to others, and their motivations for doing so.

In our prior research with large organisations we examined how practitioners (including community healthcare and logistics customer delivery workers) undertook tasks safely in other peoples' homes (Pink et al., 2014a). We highlighted the complex interplay between regulated, formalised OSH and more informal, personal, and tacit ways of knowing that guided and emerged from this practice. For example, community healthcare workers complied with regulated OSH through the uniforms they wore, hygiene and cleanliness protocols, and risk assessment procedures they took into other peoples' homes, yet also made judgements about and adapted their practice towards safety when working in these environments through *sensing* and *feeling* a home to be safe (or not) through its perceived atmosphere. In this research, our interest was extended beyond other peoples' homes to query how people approached OSH when working in and through their own homes. There is a grey area around demarcation of OSH responsibility for home working (O'Hara et al., 2004). For example, where the home worker is employed by someone else their employer only has responsibility for equipment or guidance they provide. However, these workers appeared to be covered to some extent by the Health and Safety at Work Act 1974 and the Management of Health and Safety at Work Regulations 1999 where responsibility for personal OSH falls onto the individual worker. While guidance on compliance is provided on the HSE website it is not clear how accessible this is to homeworkers. However, it may also be the case that tasks performed in the home are relatively low risk and therefore may and therefore engage a lower level of incident (HSE, 2011). This is an area that little is known about and (we would suggest) is largely overlooked by the safety management literature. Yet, for small companies and/or self-employed workers the home might be simultaneously used and experienced as the workplace. Indeed, in our study the home was the work-base for several participating practitioners including: the owner-manager of a removals company, a

self-employed mobile beauty therapist, and the managing-director and administrator of a theatre company. Our research provided initial insights on this topic: especially generated through a collaborative-participatory activity with the theatre company through a 'guided tour' of the home-as-workplace.

5.2 Building on the OSH research in larger organisations

This section considers two of the main models from the previous networked organisations project (Gibb et al., forthcoming) and investigates the extent to which these new findings support, challenge or develop the models. The models are the 'Third Way Continuum' and the 'Person-Centred OSH Knowledge model' (P-COK).

5.2.1 The Third Way Continuum

Researchers such as Hale and Borys (2013) describe the two extremes of OSH knowledge 'production': model 1, a rule-based approach; and model 2, an experientially constructed approach. Hale and Borys (2013) argue that model 2 is more common in complex, high uncertainty, high risk domains although they call for *"more field research into actual use of rules in a broad range of circumstances."* Through our previous networked organisations study, we have demonstrated the particular purchase of the model 2 perspective in sectors such as construction, healthcare and logistics. Furthermore, our networked organisations project provided evidence to expand this thinking and presented a pragmatic view of a 'third way', between the extremes - a continuum through which each situation can be understood as an enmeshed mix of rule-based working and practice-based judgement (Figure 5.1). In other words, OSH practice can be seen as a product of the intertwined nature rule-based working, contingent/emergent practice.

In the present study, this pluralistic approach is also manifest in the ways we have brought together the interview-based narratives (informing understanding of the formation, codification, management and enactment of OSH at work) and short-term ethnographic data (providing insights into the ways in which OSH is ongoingly performed in practice). Although they represent contrasting models of safety knowledge (Dekker, 2003; Hale and Borys 2013), examining them together reveals more of how formalized knowledge is adapted in practice. For example, rather than see the approach taken by small firms as relating to their size and access to formalised OSH knowledge, we acknowledge the role that myriad forms of learning – whether through observation, mimicking or through collaborative problem solving – shape the ways in which SMEs respond to both the legislative context and the emerging hazard landscape. Figure 4.2 reveals the various sources of knowledge, some internal to the organisation, some external and others stemming from their personal network and outlook, combine to inform OSH knowledge. These, in turn, combine with the situated ways of knowing, be they sensory or embodied in action, to influence safe working.
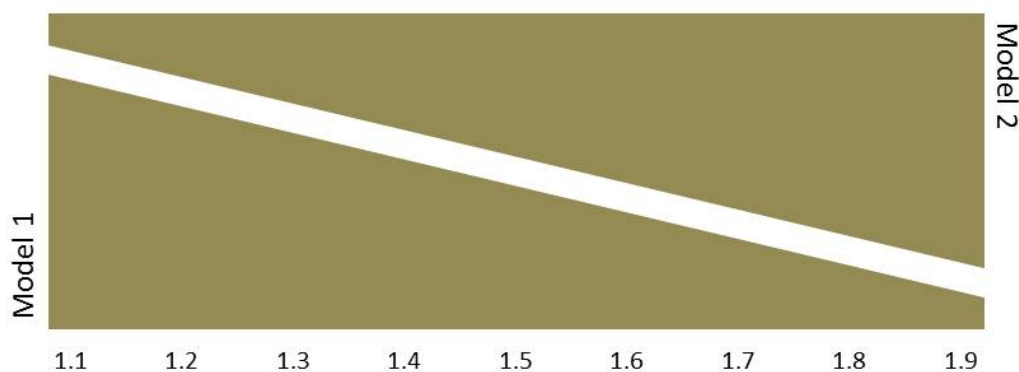

Figure 5.1: The Third Way Continuum (Gibb et al, forthcoming)

There are other resonances with our earlier study on networked organisations, particularly in relation to the acknowledgement that, in reality, the way that OSH plays out is not straight forward. We described this as a 'fog' (Hartley et al, 2014), dependent on things such as circumstance, hazard context, governance, and culture of practice. The continuum perspective was a helpful way to increase understanding of the contingent interplay between the individual, the task and the environment, or what Hale and Borys (2013) describe as 'in-between' approaches to understanding the formal and informal aspects of safety practice. We also used the continuum to discuss the sorts of tasks, individuals and environments that will require, or are likely to promote behaviours at different points of the spectrum between the extremes of the two models. Here we can see the ways in which people make and transform the situations that they confront. This emphasises the ways in which safe working is often characterised by the subtle judgements that practitioners make, and the balance that has to be made between rules and adaptation. Figure 4.5 reveals the blend of motivations emerging as shaping practices in this respect, ranging from concerns from others and a sense of social responsibility, to legislation and the fear of the 'compensation' culture. Such drivers and influences are likely to become conflated in and through practice, and assimilated to become the norms and heuristics that become OSH practice. Unpicking these influences is arguably more complex for smaller firms because the range of sources from which they draw is more diverse and the lack of formally articulated organisational rules renders more of their influences tacit in nature by virtue of them being grounded within the individual. It is perhaps this 'personalised' nature of OSH in SMEs and micros that marks the main point of difference identified between the studies.

5.2.2 The Person-Centred OSH Knowledge flow model (P-COK)

The Person-Centric OSH Knowledge (P-COK) flow model (Figure 5.2) was developed from the findings from our networked organisations research (Gibb et al, forthcoming) considering the perspective of each individual in the network. It built on the C-HIP communications model of Conzola and Wogalter (2001) and should be considered in tandem with the Third-Way Continuum, which provides more of a holistic perspective.
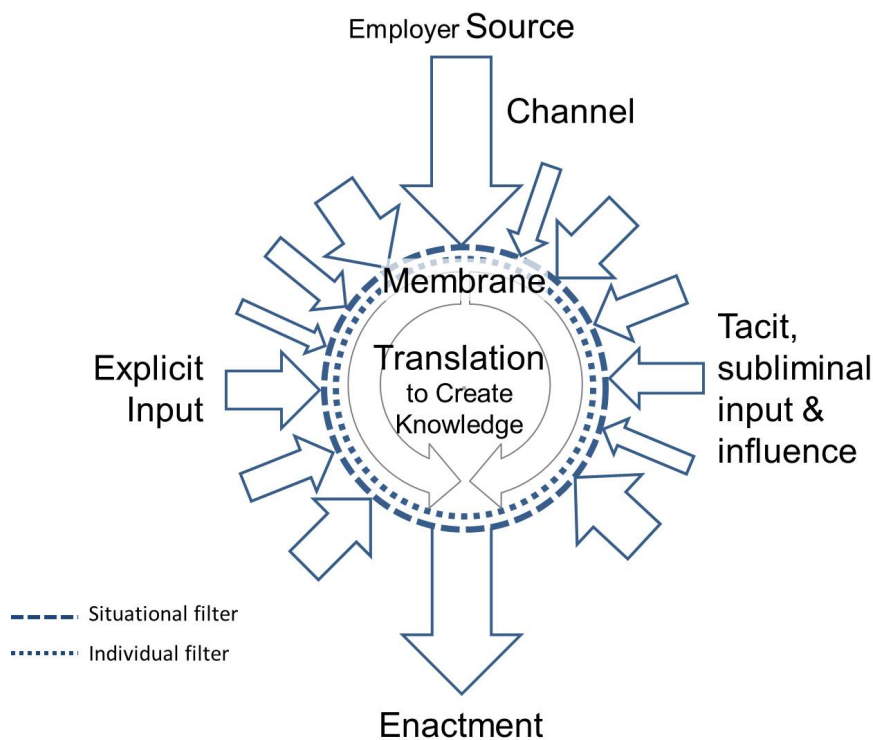

Figure 5.2: The Person-Centric OSH Knowledge (P-COK) Flow Model
(from Gibb et al, forthcoming)

In the context of large networked organisations the main task-related OSH information usually came from the employer, mutating as it worked its way through the network. The individual would also, consciously or subconsciously consider other explicit and tacit OSH inputs before translating the inputs to create individual knowledge. However filters or membranes individual to each person or created by the situation would tend to either encourage or discourage the take up of the various inputs and would influence the nature of the enactment.

Main task-related OSH inputs

In many cases for very small organisations, micros or sole traders, the 'employer' may well be a member of the public or a householder and is much less likely to think about, or have enough domain knowledge to communicate OSH information about the task in the first place. This project has argued that in such organisations OSH knowledge is mainly gained through experience rather than explicit instruction from a client or line manager (Section 2.3).
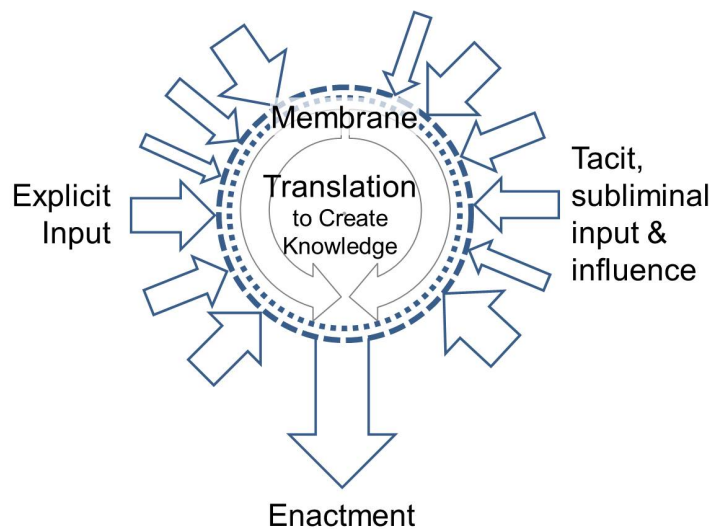

Figure 5.3: Workers of small and micro organisations are less likely to have specific task-related input

The 2015 revision of the Construction Design and Management Regulations have extended the duties of clients regarding OSH for construction workers to include domestic householders. There has been much discussion about the knowledge or competence of these householders to play this role (e.g. Construction News, 2015). However, Gibb (1997) suggests that micros do learn from feedback from customers as well as *"learning from doing, copying, experimenting and making mistakes"*. Therefore, the 'employer' input for micros and sole traders may be mainly reactive and occur after the task, therefore only benefitting future tasks. Our data suggests that one third of owners of SME and micro enterprises had no awareness of OSH legislation and most did not understand their legal requirements. This also suggests that task-related OSH input from the employer is likely to be much less than that expected in larger, networked organisations.

To counter this, our work has found that, particularly in the smaller, family-based organisations, the paternalistic or filial relationships are such that the task-related OSH input may actually be quite strong and very pointed. In one observation of a tricky demolition task by a three person family micro, the father was almost continually reminding the 'lads' to do things carefully and in a particular order. Furthermore, when a particularly challenging task arose, the father did it himself. Notwithstanding, the nature of the relationships and communication in these micro organisations is such that this input may not be seen as specifically OSH-related.

Tacit OSH inputs

The literature suggests that smaller organisations often absorb knowledge tacitly, particularly at the micro or sole trader level (See section 2.3). Our data also supported this view finding ill-defined personal or individual sources of knowledge that were often 'explained away' as common sense or experience – they explained that the behaviours had become 'second nature' and 'just part of the job'. This explanation was by far the most frequently cited explanation of how workers knew how to do their work, and how to do it safely. In some ways, one would expect this emphasis in environments where there were few formal procedures in place. However, this aspect was also very relevant in our networked organisations research which suggests that, even when more formal procedures are in place, people still rely on what they think they already know or have

learnt over the years. There was a lot of synergy between these aspects in SMEs and micros and in the community-based lone workers in larger networked organisations.

Our work has also identified the strong link between the worker and their environment, largely through 'bodily sensation' - e.g. 'feeling' how best to lift an unusual heavy object or recognising when to take a break from reading signs of tension in their own bodies. This type of tacit input may be more significant in micros and sole-traders as it is much less likely that they will have formalised or even informal guidance on when to take breaks or even how to do manual handling safely. Learning by doing was also more prevalent with people relying on their own past experienced of doing similar tasks. This is supported by Aboagye-Nimo at al. (2011) who found that small construction firms *"preferred to train workers on site as it was believed that the local knowledge of the industry is best learnt on site through demonstration".* In some cases in our research, workers acknowledged the tacit and explicit knowledge gained from previous employments, particularly with larger organisations and this included more formal training earlier in their careers – for example micro physiotherapists who had been trained initially in the NHS.

Explicit OSH inputs

Our findings differentiated between explicit sources that were internal to the organisation, such as colleagues or managers, and those external to the organisation such as the industry regulator. Fellow workers, managers or owners and family members were the most often cited internal sources of OSH knowledge. Often in the families it was the older sibling or parent-figure that was providing the input. However, the younger members were often the source when the information was available on the internet via a mobile phone. In the small firms, the owner-manager was the main source of OSH advice, at least where they were still accessible and seen as someone who had previously had the 'hands-on' experience and the associated credibility. This contrasts with the experience in some larger organisations where the workers are less likely to take advice from mangers who have only learned 'in college'. However, the most likely source differed from firm to firm and was very much context-specific and depended on the culture of the organisation and the type of work.

Medium-sized firms or smaller firms in high-hazard or high-compliance sectors were more likely to employ an OSH advisor, typically 'bought-in' on a fee or hourly rate. OSH inspectors, whether the official HSE inspector or a consultant employed to do the job are an important source of knowledge for SME-micros. The importance of such consultants was emphasised in a recent court case[12] involving a fatality in a medium-sized construction organisation where both the company director and the self-employed OSH consultant were found guilty and jailed. The consultant was contracted to *"provide advice for the project... He wrote a safe system of work for the task, but it was found to be inadequate and was ultimately not followed. He was also responsible for carrying out health and safety inspections on site and had authority to stop dangerous works, but failed to do so".*

Official inspectors from the HSE or other regulatory body were the most influential OSH source external to the company. In their report to the HSE, Brace et al (2009) suggested that Building Control officers could be used as 'official' OSH sources for small and micro construction organisations as they had regular contact with the builders as they visit site to 'sign-off' the milestone tasks for the building. However, this proposal was not taken up due mainly to the change in government after the publication of the report. In addition to direct intervention from inspectors, HSE and other industry regulators were a good external source, either via the internet or in leaflets and documentation provided.

Sole traders and micro businesses who work as part of the supply-chains or networks of larger organisations are influenced by the larger firms. In some cases suppliers of plant and equipment, materials or products can also act as OSH sources for SME-micros. An interesting example of simplified OSH guidance was observed in

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[11] https://sm.britsafe.org/safety-consultant-jailed-after-worker-killed-trench-collapse#sthash.0kOmLA7V.dpuf – accessed 26/2/15

the instructions for a jet washer[13] where the hierarchy of signs and wording was clearly stated (Figure 5.4). However, just like many individual members of the public, SME-micros often seem to ignore the OSH information provided.
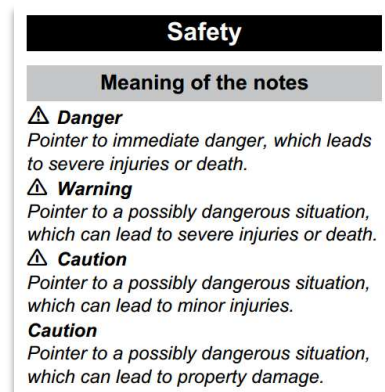
Safety

Meaning of the notes

⚠ *Danger*
Pointer to immediate danger, which leads to severe injuries or death.

⚠ *Warning*
Pointer to a possibly dangerous situation, which can lead to severe injuries or death.

⚠ *Caution*
Pointer to a possibly dangerous situation, which can lead to minor injuries.

Caution
Pointer to a possibly dangerous situation, which can lead to property damage.

Figure 5.4: OSH symbols on jet-wash equipment

Informal peer networks and contacts in the industry sector were cited as useful external sources for OSH advice. Increasingly these networks were operating virtually via email or phone rather than face to face through direct social interaction. It appeared that these were more significant for smaller organisations as there was less guidance provided internally. Formal training with a previous employer or during education at college was also an acknowledged source and often highly regarded as it was seen to be relevant to the job being done. Many of the staff working for healthcare SME-micros had been initially trained in the NHS and so, this training provided the baseline for their technical and OSH competence.

Figure 5.5 summarises the tacit and explicit OSH inputs. The varying size of the arrows suggests that the influence of each input will vary depending on the circumstances, individuals and tasks involved. However, other than fellow workers and OSH inspectors which were seen by many respondents as the most influential, the data set is not large enough to rank the significance of the other inputs.

Membranes and Filters to OSH inputs

The P-COK Flow model represents the individual's openness or encouragement and resistance or discouragement of OSH inputs and messages by considering membranes or filters that will affect the flow of OSH information as a personal level. The individual is often unaware of these filters which tend to alter for each individual person and situation.

Our SME-micro research has considered enablers and barriers to acquiring new OSH knowledge (Section 4.4). These findings have helped develop the membrane idea further, partly by considering the different types of membranes that are more typical with SMEs and micros, but also by starting to differentiate between things that encourage or discourage OSH. The suggestion here is that these could be considered as OSH-philic or OSH-phobic membranes in the similar way to a surface that is hydrophilic (water repelling) or hydrophobic (water loving).

In their book entitled 'Nudge' on improving decisions about health, wealth and happiness, Thaler and Sunstein (2009, p.22) introduce the terms *"automatic and reflective cognitive systems".* These systems explain how we tend to make decisions and react to challenges and opportunities. The automatic system is *"uncontrolled, effortless, associative, fast, unconscious and skilled"* and seems to work in a similar way to our concept of 'membranes'.

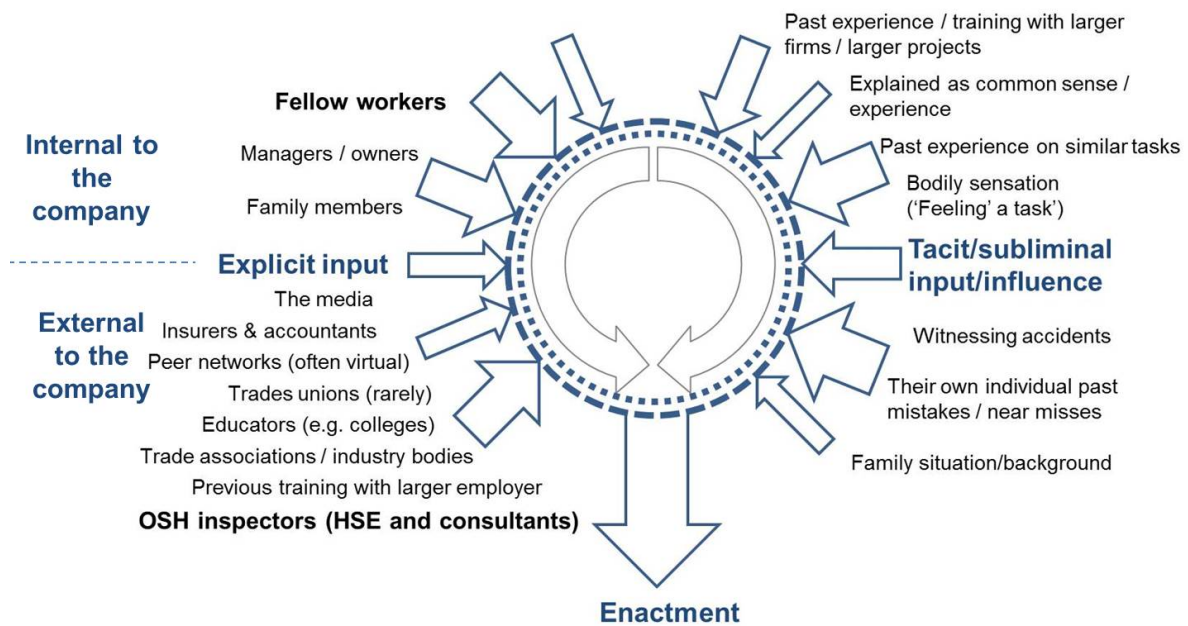[13] www.karcher.co.uk/document/BTA-5375375-000-00.pdf - accessed 26/2/15

Past experience / training with larger
firms / larger projects

Explained as common sense /
experience

Past experience on similar tasks

Fellow workers

Bodily sensation
('Feeling' a task')

**Internal to
the
company**

Managers / owners

Family members

**Tacit/subliminal
input/influence**

Explicit input

The media

Witnessing accidents

**External
to the
company**

Insurers & accountants

Peer networks (often virtual)

Their own individual past
mistakes / near misses

Trades unions (rarely)

Educators (e.g. colleges)

Trade associations / industry bodies

Family situation/background

Previous training with larger employer

OSH inspectors (HSE and consultants)

Enactment

Figure 5.5: Explicit and tacit OSH inputs raised by SME-micro interviewees

Table 5.1 summarises the main OSH-philic and OSH-phobic membranes we have found for SME-micros that affect the person's taking in of the OSH inputs.

Table 5.1: OSH-philic and OSH-phobic input membranes

OSH-philic input membranes	OSH-phobic input membranes
Encourage OSH inputs	*Discourage OSH inputs*
Seeing links between OSH and production productivity	Lack of knowledge and awareness of legislative requirements/regulations
Positive experience from bigger firms or bigger projects	No perception of need to seek advice
	Belief that they are 'safe enough'
Realising own lack of knowledge or expertise	Antipathy for inflexible rules
Wanting to expand the business (e.g. new areas requiring new OSH expertise)	Historical experience leading to a culture of distrust of the 'authorities'
	Fear of being too expensive if good OSH practice is employed (and thus lose work)

Our research has also identified a number of additional external factors that may well influence these membranes. Positive influence such as a change in the legislation, increased expectations from clients (especially where the organisation is a subcontractor to a larger, more OSH aware organisation), or negative influence from exposure to too much OSH 'propaganda' or the inappropriateness of the OSH guidance provided.

Enactment

In the networked organisations version of the P-COK flow model, the enactment for most of the actors in the network is 'merely' to disseminate the OSH message further down the network, even though this may involve some re-phrasing or re-badging of the message to make it more applicable and more likely to be effective. It is really only the 'coal-face workers' whose enactment is likely to directly affect their own OSH or that of their workmates. With SME-micros, a greater percentage of the actors are themselves at risk and one would have thought that this would focus the mind somewhat.

In this SME-micro project we have looked more closely at the enactment stage revealing four main types of enactments which lead to a more sophisticated understanding of enactment. The four enactments are:

1. gathering more information (section 4.6.1);

2. sharing information with others (section 4.6.2);

3. doing something (section 4.6.3); or
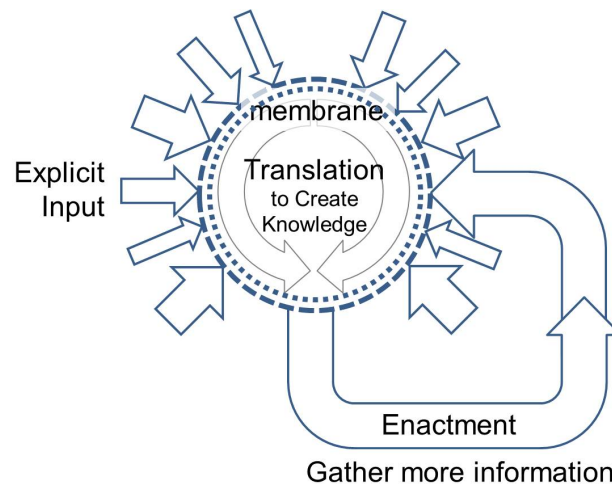
4. avoiding doing something (section 4.7).

Figure 5.6: Enactment 1 – Gather more information and reconsider

Enactment 1 (Gather more information) is effectively a feedback loop with the additional information being added to the initial inputs for a second pass at internal translation and, hopefully, a more appropriate active enactment.

Enactment 2 (Sharing information with others) is relatively straight forward onward communication of the OSH message, although it may well include some reforming of the message or channel to improve its appropriateness and effectiveness.

Enactment 3 (Doing something) as a task-related action would be done by the frontline workers. However, as explained earlier, with mist micro organisations, the owner may well fulfil enactment 1, 2 and 3, being part of the working gang as well as the owner-manager. This enactment may be doing the task in a safe and healthy manner or may be a return loop by doing something before the task to make it easier and/or safer and then proceeding to do the task.

Enactment 4 (Avoiding doing something) is a commonly stated but less commonly realised enactment. In larger firms the workers may often be told that they have the right, and even the responsibility, to stop the work if they consider that something is not safe. However, with many SME-micros, the workers perceive that

not doing the task is not an option. These are the 'sensation acceptors' mentioned in section 2.4 who are prepared to work carefully in a hazardous situation, coping with the risk in order to complete the task.

In some situations, actors may make multiple enactments in order to maintain a healthy and safe working environment. For instance, the owner or manager of a small or micro business or the supervisor of a medium-sized organisation might: observe her employees; gather some more information to check the appropriate behaviour, instruct the workers; demonstrate how the task can be undertaken safely; and then observe her employees again to confirm that they have adopted the safer practices.

> *Membranes and Filters to enactment*

In addition to filters affecting the taking in of OSH guidance and information in the P-COK flow model, the situational and personal filters will also affect the enactment of OSH once the inputs have been processed internally. Table 5.2 summarises the main OSH-philic and OSH-phobic membranes we have found for SME-micros that affect the person's enactment of OSH practice.

Table 5.2: OSH-philic and OSH-phobic enactment membranes

OSH-philic enactment membranes	*OSH-phobic enactment membranes*
Encourage OSH enactment	*Discourage OSH enactment*
Fear of prosecution / compensation claims / being sued (esp. by members of the public)	Antipathy for inflexible rules
Personal experience of major accidents or injuries	No personal experience of major accidents or injuries
Concern for one's own or one's family/friends' OSH	Perceived or real pressure to 'get the job done'
Realising that being 'off-work' means no pay (micro/sole-traders)	Payment for the completed job not 'by the hour'
Professional or personal pride	Belief that you 'won't get caught'
Perception that good OSH will create more work opportunities	

In larger organisations, employees' concerns for OSH are more likely to be motivated by organisational factors (because the company says so), whereas for sole traders and smaller micro organisations, the motivators are more likely to be external, partly because they do not have formal internal processes and procedures in place, but also because they do not distinguish between themselves and their business – they <u>are</u> their business.

> *Network Flow – much simpler in SME-micros*

In the earlier work, the P-COK flow model was also used to describe the function of the network with each player in the network receiving and filtering inputs with their enactment mainly being to communicate the OSH information further down the network. Obviously, with SME-micros, there are far fewer 'layers' in the organisation and therefore less opportunity for the OSH inputs to be corrupted through the network, particularly with very small or micro organisations.

5.3   OSH-related articulation points in different sized organisations

Building on the argument that small and micro organisations are not just smaller versions of big companies (see section 2.1), the inductive phase of this project sought to identify the tipping point or points when the main changes occur, at least from the OSH perspective. There has been much debate in official circles to try to define precisely what a micro organisation is, and much of this has become embroiled in bureaucracy because of its links to funding and government support or taxation. However, we did not set out to identify changes in legal status but rather changes in modes of operation that were likely to affect OSH. The data suggests that the idea of a tipping point is overly simplistic and it may be better to envisage a series of relatively small, but still significant, changes in orientation between micros and large networked organisations. Figure 5.7 shows the different orientations of large and micro organisations and represents the developmental steps between them as a series of articulations.
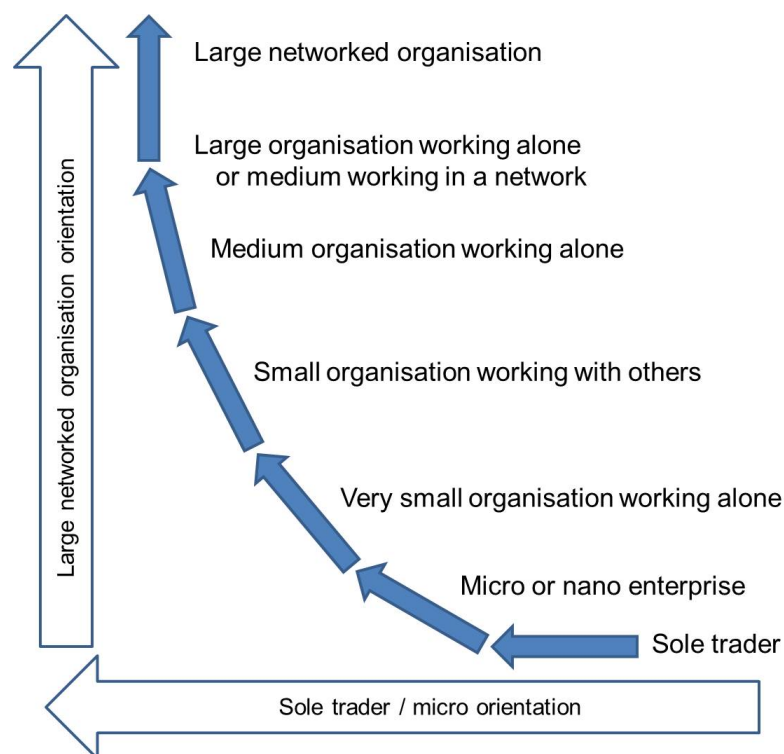

Figure 5.7: Change in orientation from micro to large networked organisation

These should certainly not be read as a smooth continuum as it is clear that the progress tends to be very 'lumpy', with different triggers occurring at different stages and having different effects depending on the industry sector or task type. From our study, there was a noticeable inflexion at the junction between sole trader to micro and this was perhaps the biggest change of all. There then appeared to be a change between small micro and large micro around the five employee mark and therefore we are suggesting the use of another term, nano enterprises, to describe these smaller micros. There was also much less of difference between larger mediums and large organisations studied previously. Some of the typical articulation triggers are represented in Figure 5.8.

One feature seems to be the acknowledgement that, whilst not denying the ongoing significant or informal, situated practices, the prevalence of formal procedures and processes does seem to increase with the size of the enterprise, although not necessarily in a linear fashion. This is supported by Knuckey et al. (2002) who suggest that, as the enterprise becomes larger, the lines of communication and operating procedures automatically become more formal. It has also been suggested that once an enterprise begins to employ more

than 20 employees it takes on a more formalised management structure (Wilkinson, 1999; Hedal, 2002). However, Legg et al. (2009) suggest that need for more formalised structures may come at a cut-off point of as low as 10 to 12 employees.

In section 2.4 we introduced the Pybus stages in the evolution of a culture of safety (Pybus, 1996 p.18 in Lingard & Rowlinson 2005 p33). The first, traditional stage, focusses on attention to rules, discipline and enforcement, individual controls and an emphasis on acute effect injury risks. The second, transitional phase, concentrates on attention to safe work procedures, employee training programmes, engineering controls and addressing known health issues. The third phase, which Pybus calls 'innovative', is when OSH is integrated into all decision making, an emphasis on the elimination of risk and an attention to cultural and motivational issues. These are shown as subsequent phases, although the distinctives of the earlier phases are not removed and should not be ignored when the organisation moves to the next phase.
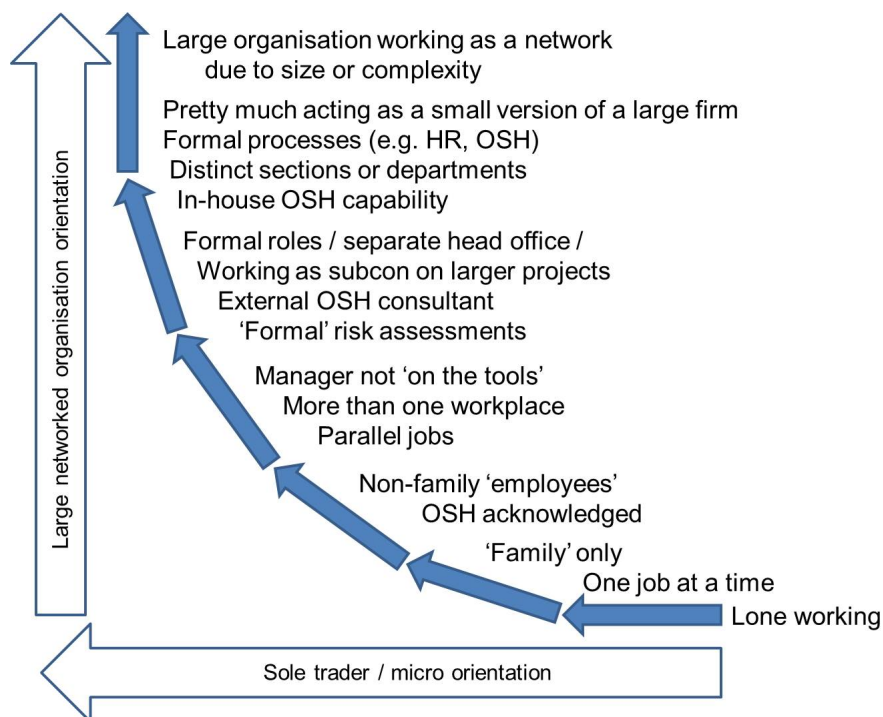

Figure 5.8: Typical triggers of change in orientation from micro to large networked organisation

Our findings tend to support the misgivings suggested in figure 2.5, that this progressive model does not work well in small or micro organisations. Because of the familial relationships in many micros, some aspects of culture and motivation (Pybus 3rd phase) are already in place and the rules-enforcement-discipline approach (Pybus 1st phase) is unlikely to occur at all or at least it is less likely to be dominant. Furthermore, as discussed earlier, small and micro firms tend to be context-sensitive and dominated internally by the interests and goals of owner–managers preferring informal and individualised practices. Therefore, it is less likely that they would follow a stylized development process such as that suggested by Pybus.

5.4   Trickle down of OSH knowledge, culture and practice from larger organisations to SMEs and micros.

Figure 5.9 is a development from Figure 2.2, suggesting a trickle down of OSH knowledge, culture and practice from large organisations to medium-sized enterprises, both those working within the networks of larger firms or as subcontractors and to medium-sized firms working on their own.

Corr Willbourn's (2009) research in the construction industry suggested that OSH knowledge flowed from larger contractors to their subcontractors – a process known as 'trickle down'. However, there has been very little research into whether trickle down actually occurs (either in the construction sector or in other sectors) in an OSH context and, if so, how. Furthermore, the question of whether the effect of trickle-down via subcontractors continues to have an effect once the smaller firm is working on their own is still unanswered. In addition, it is unclear whether the influence continues down to the micro-level.

Traditionally the focus has been on understanding how (well) knowledge is transferred from government and regulators to smaller businesses and, to a lesser extent, within organisations – that is to say, from owners and managers to workers. Trickle down of knowledge to SMEs and micros, via larger organisations, is therefore potentially a missing (or at least poorly understood) link in the OSH literature.
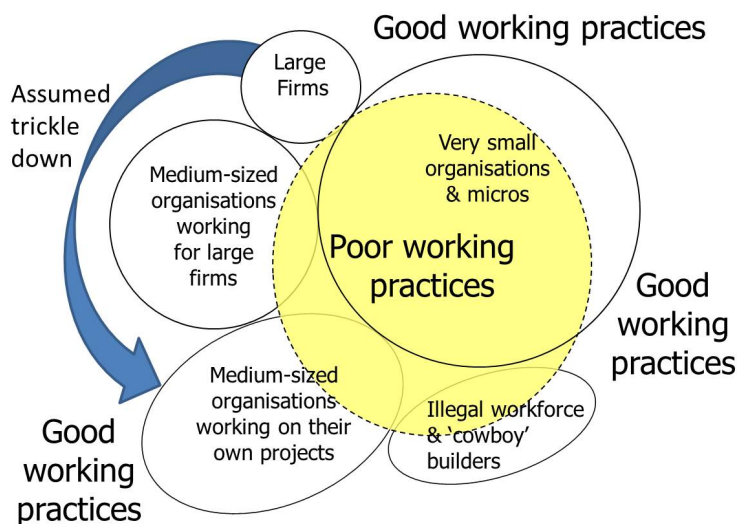

Figure 5.9: Assumed trickle-down of OSH knowledge, culture and practice

Previous IOSH-funded research by Loughborough investigated OSH communications on the construction of the London 2012 Olympic Park (Cheyne et al, 2012), including the aspect of what transfer or continuation of good practice learned on Olympic Park was then used elsewhere. *"Direct relocation of individuals who had worked at Olympic Park was mentioned by several respondents as a way of effectively transferring good practice. This was mentioned by respondents based at the Park, respondents who had moved to other projects and people working on comparison sites."* Cheyne et al (2012) also found that *"subcontractors were talking many of the practices they were exposed to back to their own organisation. This was observed directly in supply chain meetings, where subcontractors asked if they could take things back to their own organisation. Some subcontractor employees copied electronic information for future use."*

It was evident from our research that SMEs and micros do learn about OSH from larger organisations, both formally and informally, in a number of sectors, including construction. This tended to occur in situations where SMEs and micros subcontract to larger organisations, often as part of a supply-chain. For instance, an

OSH manager in a larger construction company described how his company had begun working with a smaller subcontractor that had a very low standard of OSH, however within a year the subcontractor had won a *"best at health and safety award."* The OSH manager explained how the subcontractor had been given access to training and assistance in developing their OSH programme. Any guidance they needed they knew who to ask - this process was facilitated by being approachable and by using standardised forms and procedures that allowed the subcontractor to understand what was needed without fundamentally changing the way they ran their company.

There were a number of factors that were seen to facilitate trickle down, in particular culture and processes. For instance, a construction director at a medium sized construction company said that if the culture is right and if there are proper systems in place there would actually be a *"bleed down"* of knowledge and information. He likened it to a bleed down valve that discharges high-pressure water from a pump - in other words there are fewer barriers preventing the information getting through and the uptake of information would be much quicker than through trickle down. Several respondents highlighted the importance of having an internal OSH person to assist trickle down - although it was felt that OSH was everyone's responsibility it was important to have someone to translate the main messages from the regulator. An OSH manager in a medium-sized construction company explained how *"… we have a formal tender plan so that the subbies we take on are competent and are up to a certain health and safety standard. If they're not then we can assist them, it's a formal way for them to learn and improve their OSH performance."* Larger contractors also used monitoring and supervision to verify that messages were getting through to SMEs and micros, a potential issue in construction where contractors may work with larger contractors sporadically.

One worker in a subcontracting company told us that it was *"a blessing"* that they were part of a larger contractor network, because it allowed them to improve their standard of OSH and pass information onto others within the network. Other participants stated that a lack of resources meant that smaller companies outside of a network would find it more difficult to access OSH information. Indeed, some SMEs and micros actively choose to work with *"good"* larger companies within networks because they felt safer doing so. A construction service provider told us that working with bad contractors was like *"stepping back in time"* as you do not learn anything and you know you are going to get hurt - "*working with a good contractor can bring up your overall standard of safety*". However, not all SMEs and micros choose to work with larger organisations. For instance, two sole traders in the construction industry explained how they did not like to work on larger sites as they found it to be too much about rules and regulations and very restrictive to their ways of working. They worked for a collection of close clients they had built up over the years said that they had been offered jobs on larger sites but turned down the work because after years of experience they preferred to work on their own terms. In particular they did not like the idea of anyone talking down to them or telling them what to do. They could also work more flexibly, which enabled them to engage in interests outside of work.

Choosing not to work with larger organisations is clearly a significant barrier to trickle down, however our research also identified a number of others barriers as well. For instance, a social worker that subcontracted for a local authority explained that that there were times when she felt *"outside of the loop"* in terms of information flow, because OSH updates were often discussed during office hours with permanent staff, but as a contractor she would not be present. While OSH updates were also issues by email and the authority's on-line OSH training system (both of which she had access to) she felt that this was done haphazardly and no one actually checked if the information had been received and understood. This highlights how the trickle down process is dependent on the 'pushing of information by the larger company and the 'pulling' of information by the smaller company - if one or both of these actions do not occur, then effective trickle down of OSH information is unlikely to occur. One such example was a self-employed taxi driver who operated under the brand of a larger company, but had received very little OSH information from the company.

In addition to the direct links where smaller enterprises work for larger firms, there are other networks that we found encourage a measure of trickle-down. There is clear evidence of networks such as the NHS having a clear influence on professional ethics and training of medical-related healthcare staff some of whom then

migrate to SMEs or micros. There were also examples of workers in small or micro enterprises who had previously worked for larger, networked organisations. However, there were mixed recollections of their time spent with the larger firms depending on how OSH had been managed and enacted.

5.5   Dealing with complacency

Throughout this research project, our industrial steering group have been encouraging and challenging us to face up to the question: "Why don't people, who should know better, actually do what they know they should do? Why don't they behave safely?" We believe that we have responded to this question in part by challenging the assumption that can sometimes be made that behaving safely is the same as complying with the rules. We have explained that workers often need to adjust and adapt the 'rules' in order to apply them in a regularly changing environment or task and that a real challenge for OSH practitioners is to develop a culture and practice environment that enables and encourages this level of engagement and does not just condemn such initiative out of hand.

Nevertheless, we acknowledge that there are still those individuals who decide to continue to work in an unsafe or unhealthy manner.

We have already acknowledged the limitations of a purposive research sample which is likely to be biased towards those who and relatively positive about OSH and who believe that they are working in a safe and healthy manner. Nevertheless, most of the owners, managers and workers involved believe that they work safely, even if they do not obey all the rules. This was a similar situation in our previous work with larger networked organisations. There are a number of alternative interpretations of this, such as:

1)   They have a good enough grasp of relevant legislation and good practice to know how… and they have the motivation and resources to work in a safe and healthy manner.

   - They are an ideal OSH exponent and exemplary individual.

2)   They try to work in a safe and healthy manner and they believe that they do so, but they do not know enough to really know what to do.

   - They need to realise how little they know and to find out where they can get the information and knowledge that they need.

3)   They try to work in a safe and healthy manner and they believe that they do so, but they do not have the experience to really know what to do.

   - They need to get the experience in the best possible OSH-supportive environment possible.

4)   They are either deluding themselves or trying to provide a facade of working in a safe and healthy manner whilst not actually doing so.

   - They need to be honest with themselves and realise that they are at risk.

The fourth category may well be the type of individual that some of the early 1980s television adverts about car seat belts were trying to reach. At that stage, seat belts had been fixed to new cars and even retrofitted to existing cars, but the law to force people to wear them had not yet been made. The target drivers were those whose attitude was *"I am a good driver – I have driven for 30 years without having an accident – why should I need to wear a seat belt?"* There was a series of adverts aimed at such drivers – they were called 'the Blunders' and an excerpt is shown in Figure 5.10. The serious point here is that, to reach those in this fourth category you need to persuade them that they cannot guarantee their own safety, nor the safety of their workmates. They need to be real about their vulnerability and recognise that they are probably either in category 2 or 3, needing more knowledge or more experience, but certainly a change in attitude.

The Blunders[14] – an everyday story…..

Mr Blunder set off to work in his red Morris 1100, with lots on his mind. He is driving along, not concentrating and driving very badly. Then then narrator says: *"You might meet Mr Blunders on your way to the shops."* The camera cuts to a green Mk1 Ford Escort with a careful, conscientious driver. The narrator continues… *"You might meet Mr Blunders – and no matter how well you think you know the road and no matter how sensibly you drive, Mr Blunders could be round the next corner. That's why you should always wear your seat belt."* Mr Blunders then comes around the corner on the wrong side of the road and the Escort is forced off the road and crashes and the careful driver, not wearing her seat belt, goes through the windscreen!

Figure 5.10   The Blunders - TV advert to persuade good careful drivers to wear their seat belts

5.6   Comparisons with previous studies

Table 5.3 compares the findings from our research with those of previous studies on OSH in SMEs and micros, which we reviewed in section 2.4 of this report. The table provides an insight into where our findings corroborate (shaded green) and contradict themes in the literature, either fully (shade red) or partially (shaded orange). Some of the contradictions might be explained by different study contexts (i.e. country, industry sector, year of study) and/or research methodologies, but they are nevertheless worthy of discussion. In addition to the themes in Table 5.3, our research has also provided a number of new insights that have not been given significant attention in the literature.

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[14] From 'Charlie Says': Central Office of Information Archives

5.6.1 Knowledge and awareness of legislation and guidance

One of the more dominant themes in the literature was that SMEs and micros lack information, knowledge and awareness of legislative requirements/regulations, a finding that was not really borne out in our research. Although our study did not set out to specifically 'measure' or test levels of awareness amongst SMEs and micros, it was clear that owners and managers perceived legislation and regulations to be an important driver for working healthily and safely in their businesses. However, there were some indications of difficulties in accessing some of the OSH guidance as the HSE has significantly reduced the amount of guidance on its website and some other sites are on a pay per view basis.

Mayhew (1997) proposes that smaller firms may also have difficulty translating legislation, not just in terms of how a complex set of text can be enacted, but also how it fits in with business processes (Toone, 2005). For SMEs and micros, industry specific language used by regulators and professionals can prevent access to understanding this information (Crawford et al., 2013). This is a particularly worrying finding as SMEs and micros tend to use this information as it is easy to access, freely available and from a trustworthy source. For micros there are further concerns in terms of the use and flow of knowledge of information. Some OSH documentation, for example written policy statements, is not required for businesses with five or less employees. This raises a particular problem when investigating this subset of micros as having no need for a written policy statement may result in having no policy at all. Lansdown et al. (2007) recommend that sensitivity is considered in the classification and investigation of micros.

However, most participants in our study claimed to understand the regulations pertaining to their specific area of work, particularly in more highly regulated and/or high-risk sectors, such as mining and healthcare. This regulatory awareness, which seems to go against the commonly held view at least in the media, might be influenced by a number of factors, including:

- That SMEs and micros feel the need to keep abreast of regulations for peace of mind and reassurance, which in turn may be underpinned by the perception that society is becoming more litigious and OSH more legislated.

- The more widespread use of the Internet means that it is easier for SMEs and micros to find information about OSH regulations and legislation in their area of work – although, as mentioned above, some sites charge for access to guidance.

- The desire for SMEs and micros to be able to demonstrate their compliance with OSH regulations in order to be able to undertake work for larger clients and companies.

The latter point was epitomised by an OSH consultant at a home warranty company, who mentioned that he received calls from micro companies anxious to know what they should do to comply with the rules on larger sites. Such findings also run counter to the view SMEs and micros do not perceive the need or see the value in new OSH information. Although that was certainly the case amongst some of our participants, in most cases it was because they felt that their working practices were already safe and that they had the required knowledge and experience to undertake their work safely.

Table 5.3: Comparing the findings from the literature with findings from our research

| HISTORICAL FINDINGS SUPPORTED BY OUR FINDINGS	
Findings from the literature	**Our findings**
Fear of prosecution/compensation claims is a motivating factor for taking OSH more seriously	This was a recurring theme in our research and there was a sense amongst participants that society had become more litigious. In many cases this fear was underpinned by a desire to act responsibly and/or protect one's livelihood.
Reluctant to seek or don't perceive the need for OSH help/support/information	Many participants in our in our research did exhibit a reluctance to seek new OSH information, primarily because they felt that their existing practices were fit for purpose.
OSH is taken more seriously when its linked to production	This was certainly evident in our findings, primarily because many participants did not tend to distinguish OSH as a separate concept – OSH was intrinsic to their work.
Rely on informal sources of OSH knowledge (e.g. word of mouth from colleagues, third parties etc…)	Informal sources of knowledge were particularly popular amongst sole traders and micros, however it would wrong to suggest that they rely on informal sources of knowledge – they used a mix of formal and informal sources.
Trickledown of OSH knowledge from big sites	Trickledown of knowledge from large organisations was evident in our research and took a numbers of forms. For instance, subcontractors acquired knowledge from clients and main contractors; and people carried knowledge with them from previous jobs with larger employers.
Common sense approach to assessing OSH risks (context specific approach/standards)	Common sense and experience were dominant themes in our research and played a key role in understanding how and why SMEs and micros approach OSH the way that they do.
OSH intrinsic with jobs/trade skills (health and work are indistinguishable)	This was certainly evident in our findings - participants did not tend to distinguish between OSH and their work – OSH was intrinsic to their work.
OSH practices are socially constructed	OSH practices were socially constructed, in that participants shape their practices and give them meaning. Practices do not exist independently of participants, and are influenced by their beliefs and values.

HISTORICAL FINDINGS PARTIALLY SUPPORTED PARTIALLY CONTRADICTED BY OUR FINDINGS	
Findings from the literature	**Our findings**
Underestimate/discount/unaware of OSH risks (unable to identify problems/over-optimistic about the safety of their working environment) – talk down risk	Talking down risk was apparent amongst some of our participants, more so amongst sole traders and smaller micros. In some cases this was justified (i.e. the risk was low), in others it was down to complacency.
Accident/incident rates used as a marker of OSH success/compliance	A number of participants cited their lack of accidents as a marker of their OSH knowledge. Accidents/incident rates also informed monitoring in small and medium size organisation.
Unstructured/unsystematic approach to managing OSH	The degree of structure very much depended on the size of organisation. Bar a few exceptions (such as mining companies) micro organisations tended to have more informal approaches to OSH, although many still had some formal processes and policies. Generally speaking SMEs tended to have more formalised approaches, particularly those in more regulated sectors such as healthcare.
More focus on safety rather than health	This very much depended on the organisation and individual concerned: some practitioners focused on safety; others had a more balanced view.
Blame OSH problems on employees (e.g. not using equipment provided) – shifting/devolving responsibility	There was no strong evidence of owners blaming employees, however some owners and managers stressed the fact that employees were also responsible for their own OSH – responsibility was therefore shared rather than devolved.
Antipathy for inflexible OSH rules/regulations	Participants were not particularly apathetic towards rules and regulations – they understood the importance of complying with them – however some did question the applicability of some rules and regulations to smaller organisations.
Leave OSH to the workers (wish to avoid being paternalistic)	Owners and managers in our research stressed the importance of employees also being responsible for their own OSH (shared responsibility). Often this was for pragmatic reasons, rather than not wanting to be paternalist - for instance workers might be operating in a different location.
OSH lower down the list of priorities – marginal concern (probability of injury is low)	OSH was an important issue for most participants, although reasons varied. For instance, some people were concerned for their livelihood; others about injuring others. However, some participants did not see OSH as an issue warranting special mention – it was just part of their work.
Differences in OSH management practices between sizes of firms (larger firms more proactive due to greater resources/visibility). Small firms approach OSH differently from larger firms, with the latter taking OSH more seriously	Practices did very across size of firms – generally SMEs adopted more formal practices than micro organisations. However, it was be wrong to suggest that SMEs and micros take health and safely less seriously the larger organisations. The primary difference is that OSH in SMEs and micros is located at the individual rather than the organisational level.

Findings from the literature	Our findings
Reactive rather than proactive approach to OSH	The fact that incidents and near misses were the most frequently cited trigger of changing OSH practices might suggest that SMEs and micros are being reactive. However, individuals were also proactive, in the sense that they addressed emerging problems before they escalated into serious incidents, by adapting their working practices.
HISTORICAL FINDINGS CONTRADICTED BY OUR FINDINGS	
Lack of information, knowledge and awareness of OSH legislative requirements/regulations	This was the case in some companies, but very much depended on the type of work being carried out. For instance, individual (particularly owners and managers) in higher risk/more highly regulated sectors appeared to have very high levels of knowledge/awareness.
Lack of resources to deal with OSH issues (lack time, skills, expertise, money, formal process + demands of the job)	This was not a particularly prominent issue amongst our participants, in terms of being a barrier to healthy and safe working. For many participants OSH was seen as part of the job of running a small business.
H&S inspectors are an important source of OSH knowledge	With a few exceptions, H&S inspectors were not seen as an important source of knowledge amongst participants in our research. However, the HSE, local authorities and industry regulators were all cited as sources of knowledge.
Lack of management commitment/motivation/responsibility for OSH	This was not particularly evident in our findings. Owners and managers tended to exhibit a level of interest in the OSH of their workers.
Lack of employee participation/engagement in OSH	Our findings suggest the opposite is true, particularly in micro organisations where there is often a 'family culture'.
Confusion about division of OSH responsibility between owners/managers and workers	This theme was not reflected in our findings. Owners and workers in SMEs and micros tended to have a good understanding of their respective responsibilities, often due to working with each other closely and, in some cases, for long periods of time.
Fatalistic attitude towards OSH and accidents (they are part of the job, unforeseeable, down to bad luck etc…)	Some participants in did express these sentiments, but this was not a strong theme in our research.
Existing methods of imparting OSH knowledge are not adequate	Participants were generally happy with the OSH information they accessed/received, although some felt that OSH knowledge did not 'flow' to them like other forms of information relevant to their businesses.

Existing Findings supported by our work   Existing findings supported to some degree   Existing findings not supported

Previous studies found that OSH inspectors were an important source of OSH information, but in our study they were mentioned infrequently. Instead, owners and workers in smaller organisations were seen to draw upon a wide variety of information sources, both formal and informal, and internal and external to their organisation – often in combination with each other. One particularly interesting insight from our research is the way in which people carry knowledge with them from previous employment(s), which was often with larger organisations such as the NHS. In some instances, people carried OSH knowledge with them from a different area of work and then applied it to their new area of business. We would suggest that this is an important and frequently overlooked source of OSH knowledge in the SME and micro sector. It also underlines the fact that owners, managers and workers in smaller organisations do not just passively receive information - they use the information to create, shape and adapt knowledge through their everyday practices and interactions with other actors in the workplace.

5.6.2   Safe practices

In many respects the literature paints a very negative picture of OSH in SME and micro organisations, with previous studies finding a lack of management commitment, a lack of employee engagement and confusion about employee and management responsibilities in smaller organisations. However, these issues were not evident in the organisations that we engaged with. On the contrary, the close-knit nature of many SMEs and micros meant that owners seemed to feel a sense of responsibility for the health and wellbeing of their employees and similarly employees understood their responsibilities, even if they were not always formalised in writing, because they were seen to be an intrinsic part of their work. Moreover, although some owners and managers were keen to stress the importance of their employees being responsible for their own OSH, this was less about abdicating responsibility and more about getting employees to buy-into OSH, rather than imposing it on them.

Interestingly, confusion over OSH responsibilities seemed to be more pronounced in situations where sole traders or freelancers were working together on behalf of a client or individually as part of a small or micro business – in other words, where the employer/employee relationship did not exist on paper, but aspects of that relationship remained. One example was a sole trader physiotherapist operating within a small physiotherapy practice – she used the practice's facilities, operated under the practice's brand and was required to adhere to the practice's OSH policies, however she has autonomy over her own OSH practices. Another example of this blurred relationship would be two independent tradespeople working on a domestic construction project, with one 'employing' the other on behalf of the client but abdicating himself of any responsibility for the work or wellbeing of the other individual. In contrast, there were instances in the agricultural sector of self-employed workers acting like an employee and being viewed like one by the owner of the micro company.

Our research also highlighted how SMEs and micros have developed working practices that, in some cases, might not be in line with formal recognised practice, but that are nevertheless safe within the context that they are being applied. Knowing how to work in healthy and safe ways is generated from the interaction between people and the specific social, material, sensory, affective, and regulatory contingencies of the workplace environments through which practitioners undertake practical activity. For workers, these 'other' ways of knowing become part of the everyday enactments that they perform to do their work safely, and the making of 'safe improvisations' is how they adapt to the varied workplace environments that they encounter. Such practices have received little attention in the literature on SMEs and micros and, where they have done, have tended to be viewed as risky and dangerous.

Another new insight from our research concerned the home as a workplace - the routines, habits, and techniques that workers in smaller organisations use to demarcate work from home-life in order to create desired affective experiences (or those that were positive, relaxing, and/or happy), and which were understood to maintain good mental and physical wellbeing. When pushed to explain where these techniques had developed from, it was evident that for these practitioners it was a complex mix of doing things that they

felt they *needed* or *must do* to create the desired affective-experience of the home-as-workplace, but also that suggestions had come from a range of different sources. For instance, from talking with friends or family members, attending a business seminar about strategies for managing work related stress, and also embodied, sensory ways of knowing including paying attention to bodily response to judge when feeling tired or overworked and responding to this by taking a break out of the office or away from a computer screen. Although only tentative, we suggest that such insights hold rich scope for further investigating the ways that workers understand, experience, and enact OSH when working in their own homes.

6 CONCLUSIONS

6.1 Revisiting our objectives

Despite the important role that SMEs and micros play in the UK economy, relatively little is known about how such organisations approach OSH in the workplace. Research in this area has tended to be spread thinly across a wide range of sectors and geographical locations, and most studies have tended to examine the issue from the perspective of the business owner. Our research therefore sought to adopt a more balanced approach, employing a mixed-methods qualitative research strategy to explore the issue of OSH from the perspective of owners, managers and workers in SMEs and micros. In doing so, we engaged with organisations in a wide range of sectors, some of which have not previously been considered in the OSH literature.

Our objectives in this study were to:

1. Investigate the perceptions of OSH in SMEs and micros in the UK;

2. Determine the sources of OSH knowledge in SMEs and micros;

3. Identify the enablers and barriers to accessing and applying OSH knowledge in SMEs and micros;

4. Examine how OSH knowledge is applied in practice in SMEs and micros; and

5. Compare OSH knowledge and practices in smaller organisations with those in larger organisations.

Objective 1: perceptions of OSH in SMEs and micros

The literature generally paints a negative picture of how SMEs and micros perceive OSH - their approach tends to be characterised as reactive and non-compliant, and their levels of knowledge and awareness are low. However, the findings from our research generally paint a more positive picture: many of the SMEs and micros that we engaged recognised, for varied reasons, the importance of OSH in the workplace. Some participants in our study expressed their frustration with rules and regulations, but this was less about downplaying OSH and more to do with the a feeling that the rules and regulations were inappropriate to their context, creating unnecessary bureaucracy and in some cases making the workplace more unsafe than it would otherwise be. Working in a healthy and safe manner was perceived by many of the participants in our study to be the responsible thing to do, an intrinsic part of their work and a key aspect of operating their business. Such discrepancies with the literature are difficult to explain, but might be due to differences in study context, research methodology and/or the heterogeneous nature of SMEs and micros.

Objective 2: sources of OSH knowledge in SMEs and micros

The findings from our research suggest that SMEs and micros use a wide variety of formal and informal sources of OSH information, often in combination with each other. Tacit ways of knowing, drawing heavily on common sense and experience were particularly important and trusted sources of knowledge for owners and workers in small companies and micros. There is evidence to suggest that some SMEs and micros benefit from trickle down of knowledge from larger organisations. Furthermore, SMEs and micros benefit greatly from the OSH knowledge that owners and employees carry with them from previous jobs, including those with larger organisations. This suggests that trickle down of knowledge from larger organisations to smaller ones also occurs indirectly, and in the process of doing so individuals shape the knowledge and apply it in new contexts. Informal sources of OSH information, such as colleagues and peers, were also important to SMEs and micros. Although this is reflected in the literature, our research has shown the increasingly important role that online and digital media can play in the communication of OSH information.

Objective 3: enablers and barriers to accessing and applying OSH knowledge in SMEs and micros

Our research provided a number of insights into the motives for and barriers to accessing and applying OSH knowledge in SMEs and micros. One is the important role that (larger) clients and customers can play in encouraging SMEs and micros to take on board new OSH information, usually as a requirement of being able to do business with them. This was particularly evident in sectors, such as construction and logistics, where SMEs and micros often operate within the supply chains of larger companies. Another important reason for seeking new information was to ensure compliance in the light of changing legislation and regulations. This in turn was informed by the need for reassurance and peace of mind in what is perceived to be an increasingly litigious society. However, there were also a number of barriers to acquiring new health knowledge in SMEs and micros, not least the perception that information is in a language tailored for OSH specialists in larger organisations, rather than for non-specialists in smaller organisations. Many participants in our research also perceived that their working practices were already safe, which would reduce their inclination to seek new OSH knowledge.

Objective 4: how OSH knowledge is applied in practice in SMEs & micros

Our research has revealed that SMEs and micros enact, or put into practice, OSH knowledge in a wide variety of ways, both individually and relationally. Some of these enactments involve gathering and sharing information; others involve carrying out or not carrying out a specific act. In many cases, these enactments were seen by participants to be everyday actions or routines that were informed by experience and common sense, and had been developed and refined over time. The working practices described by participants made sense to the people that used them and were deemed to be safe in the specific context that they were being used, but some of them might not be deemed to be compliant to regulation or company policy by OSH practitioners.

Objective 5: Comparison of OSH knowledge and practices in smaller and larger organisations

Within the SME and micro sector itself, it was evident that organisations with more employees tended to adopt more overt formal OSH processes, and more formal channels of communicating OSH knowledge, even though tacit knowledge creation and flow was evident in all the organisations, small and large. Although our data does not allow us to pinpoint a specific 'tipping point' for when overt OSH becomes more formalised in SMEs and micros, it was clear that the move from sole trader to micro organisation is a significant step, because of the sense of responsibility that comes with employing other people. Indeed, this was a more noticeable tipping point than the one that comes with employing five or more people which is an important cut off point in legal terms (e.g. organisations with fewer than five employees do not need to have a written OSH policy or to record their risk assessments). The level of formalisation of OSH practices was also influenced by the type of work being undertaken. For instance, even micro companies working within more regulated and/or hazardous sectors, such as mining, used more formal processes, whereas similar sized organisations in less hazardous and/or regulated sectors relied much more on informal processes to maintain safe working.

In terms of comparing SMEs and micros with larger organisations, the key insight from our research is that small and micro workers do not see OSH as something that is 'owned' by their organisation - instead OSH is seen as an intrinsic part of their job and a key part of being a responsible practitioner.

6.2   Implications for practice

Both the ethnographic and non-ethnographic parts of this research project have highlighted that there is far more to enacting good, effective occupational safety and health than mere compliance – even if the rules were the best and most appropriate rules that could be. Our research has illustrated how workers in small companies (as they did in larger organisations) skilfully blended diverse ways of knowing; thus in most cases performing their work in general compliance with regulated OSH yet attuning their practice to the contingencies of varied workplace scenarios and environments.

Personal, tacit ways of knowing should not therefore be assumed to be antagonistic to formalised OSH – indeed we suggest it would be more productive to acknowledge and seek to better understand the ways that these become complimentary and the ways that they do not.

The challenge for OSH practitioners and legislators is to recognise the bringing together of different ways of knowing and doing OSH (including both the regulated and the tacit), and then to design ways to better support workers in this complex process. This should include helping them to direct their judgements, responses, and adaptations towards safety outcomes. While we do not deny that there is a clear need for formally codified OSH-guidance (especially in high-risk work contexts) there is also a need to acknowledge the diverse ecology of knowing and practicing-OSH that characterise the workplace.

Adopting some of Thaler and Sunstein's (2009) "libertarian paternalism" may be more effective than further overt legislation of codified OSH guidance. This should be enhanced if it is applied along with an increased understanding of and emphasis on developing the "automatic system" to be more OSH-philic rather than OSH-phobic.

Acknowledging the myriad ways that workers *already* do their work safely may provide scope for applied interventions, and offers an alternative route towards safety than only seeking to understand how OSH could be made better through more comprehensive or tighter regulations. Workarounds exist in all sizes of organisation and that they do not need to increase risk; there is a need to learn from good practice regarding workarounds and develop dynamic systems to enable workers to manage their own OSH in the context of a continually changing environment. It is important that OSH practitioners educate people effectively on the REAL level of risk, as individuals who make judgements based on their own perception can come badly unstuck if their perception is wrong.

To be effective, it is essential that we develop ways of helping SMEs and micro enterprises to work out whether the worker's confidence in working in a safe and healthy manner is actually safe and healthy. And, where it is not a safe way, then to rapidly establish whether the worker lacks knowledge or experience or is just attempting to cover up reckless, unsafe practices.

The other implications of this research are that:

- Large organisations should accept some responsibility to encourage trickle down, to help smaller companies improve their processes and practice; this should be about helping to embed it in the smaller companies, not just needing the smaller companies to tick boxes, and not encouraging the smaller companies to be over reliant on the bigger ones. This could be done through something in line with the Governments responsibility pledges (https://responsibilitydeal.dh.gov.uk/pledges/), providing they do not become just a political exercise.

- Large companies can also learn from smaller enterprises, in terms of the benefits of having a family approach and getting people to take personal ownership rather than 'following the rules' and abdicating responsibility to the organisation.

- If informal networks are an important source of sharing information in small companies, there is a need to make sure they are good networks, and that there is clarity and common understanding about what is important, particularly when it comes to different interpretations of terms like 'common sense' or 'workarounds'.

- If the Internet is becoming increasingly accessible to (and accessed by) all then more effort needs to be made to conveying key OSH messages and guidance via the internet, and, in particular using mechanisms that are being used by younger workers (e.g. WhatsApp and Twitter are effectively making email redundant for many younger people).

- There is a need to address the perception that OSH guidance is written for OSH professionals. The HSE website is fairly effective at putting things into simple terms. However, it is unrealistic in the current

political climate to expect the HSE to appoint enough friendly inspectors to advise small companies, rather than the few having to focus on prosecuting instead. The HSE website will therefore have to be one of the main ways to make useful guidance available for SMEs and micros.

- There is a need to acknowledge that small and micro organisations are not just smaller versions of large companies and that the transition from micro through small to medium or large is not a smooth, linear process (Figures 5.7 & 5.8). Understanding the typical triggers of the change of orientation as enterprises grow will help to develop effective approaches to address the OSH challenges.

6.3   Areas for further research

This study has highlighted a number of areas for further research. One is the 'trickle down' of OSH knowledge to SMEs and micros from larger organisations, an issue that has been discussed previously in the literature and has been explored in further depth in this study. However, most of the empirical evidence concerning trickle down relates to the construction industry, a sector that relies heavily on the use of small subcontractors working within the supply chains of much larger contractors – conditions that are arguably conducive to facilitating the trickle down of knowledge, because of the influence that larger contractors can exert over smaller companies. Although our study suggests that trickle down might occur in other industries, such as logistics, there is clearly a need to explore this issue in further detail to understand how different industry structures and conditions enable and/or hinder the trickle down of OSH knowledge. Furthermore, it would be interesting to investigate whether knowledge that has trickled down is retained and used by SMEs and micros after their relationship with the larger organisation comes to an end. In other words, does the trickle down of knowledge have a lasting influence on OSH practices in smaller organisations?

One of the key insights from this study has been the degree to which SMEs and micros rely on individuals carrying OSH knowledge with them from previous employment(s), which was often (but not always) with larger organisations. In sectors such as healthcare, this 'indirect trickle down' of OSH knowledge is arguably more important than the direct trickle down of knowledge through supply-chains. Moreover, individuals carrying knowledge with them sometimes transfer knowledge between different sectors. Future research could therefore investigate how individuals transfer knowledge between (sometimes very) different contexts and, in doing so, how they shape and adapt that knowledge for use in different situations. Such research would be particularly pertinent given that the level of self-employment in the UK is higher than at any point in the last 40 years (Office for National Statistics, 2014). Linked with this theme is the issue of how OSH knowledge circulates within the SME and micro sector itself, for instance between small or micro organisations and sole traders, and the influence that this has on OSH practices. Our research suggests that these transfers of knowledge do occur – often informally - but further research could seek to map the knowledge pathways more comprehensively.

Our research indicates that SMEs and micros see the Internet as an important channel for receiving OSH information, which is perhaps unsurprising given the growing use of the Internet in society in general and the proliferation of 'web-enabled' devices such as smart phones. However, future research could explore in further depth how SMEs and micros: go about searching for OSH information on the Internet; how they determine the credibility of information; how they convert information into practical OSH knowledge; and how they subsequently enact the knowledge during the course of their day-to-day work. More specifically, it would be interesting to investigate how social media are being used to share OSH information, both formally and informally, in the SME and micro sector, particularly in industries (e.g. the arts) that are underrepresented in the OSH literature. The findings from such research would be particularly useful for providers of OSH information, such as IOSH and the HSE.

In section 3 of this report we outlined some of the varied ways in which SMEs and micros work with other organisations. For instance, we found: multiple physiotherapist sole traders working within a physiotherapist practice; domestic tradespeople that work with multiple clients (some large clients, some domestic clients);

and a medical practice that is contracted to (different parts of) the NHS. We also found that SMEs and micros create different identities within these relationships, such as: a sole trader farmer managing self-employed workers but treating them as employees; and a participant describing himself as a sole trader but also stating that he had two 'employees'. The shape and nature of these relationships clearly had an influence on the way in which SMEs and micros in our study viewed and approached OSH, however future research could explore in more detail how OSH practices are influenced by different types of relationship and the different identities that SMEs and micros confer on each other and on themselves. Such research might also provide a foundation for a more nuanced investigation into tipping points in OSH practices, one that moves beyond a focus on employee numbers and puts greater emphasis on the type of working being undertaken and the culture of the organisation.

Another interesting avenue for future research would to investigate how accurately individuals working in SMEs and micros perceive risk: when people think they are using common sense and acting safely, albeit not in accordance with the law, is this actually the case. Where are the areas that people are making the worst misjudgements and how can those be addressed? Linked with this are the issues of home-working and working in other peoples' homes, both of which have explored in this study. However, the home as workplace is an issue that underrepresented in the literature on OSH in SMEs and micros and is therefore an area where future research could provide new insights into OSH practices.

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APPENDIX A: SUMMARY OF PREVIOUS STUDIES ON OSH IN SMES AND MICROS

The literature review in this study involved a keyword search of the internet and online journal databases. Keywords included combinations of terms such as (but not limited to): "health and safety"; "small and medium sized enterprise"; "small business" etc. For the purpose of our review we focused primarily on empirical studies (i.e. those involving aspect of primary data collection), as summarised below. However, our reading for this project also encompassed non-empirical literature and the broader business and management literature on smaller businesses.

Source	Methods	Setting	Sector
Antonsson et al. (2002)	Literature review	Sweden	Various
Barbeau et al. (2004)	Structured interviews with OSH representatives at 25 medium-sized enterprises	United States	Manufacturing/ process
Bradshaw (2001)	28 structured interviews with managers of SMEs	UK (Sheffield)	Various
Champoux and Brun (2003)	223 structured telephone interviews with owner-managers of small firms	Canada (Quebec)	Manufacturing
Corr Willbourn (2009)	35 in-depth interviews with the operators of small worksites	United Kingdom	Construction
Eakin (1992)	Qualitative interviews with 53 small/microbusiness owners	Canada (Calgary)	Various
Eakin and MacEachen (1998)	Qualitative interviews with 40 employees in small enterprises	Canada (Toronto)	Various
Fairman and Yapp (2004)	50 semi-structured qualitative interviews with small businesses, trade associations, regulators, enforcement bodies, and consumer groups	UK	Food
Fonteyn et al. (1997)	Semi-structured interviews with 33 owners of small and micro enterprises	Australia (Sydney)	Manufacturing
Hasle et al. (2009)	22 semi-structured interviews with small and micro enterprises	Denmark	Construction and manufacturing
Hasle et al. (2012)	27 qualitative interviews with owners/managers in 23 small firms	Denmark	Construction and manufacturing
Holmes and Gifford (1997)	Participant-observation of 14 key informants (n=7 employers and n=7 employees) and from 42 other informants.	Australia (Victoria)	Construction

Source	Methods	Setting	Sector
Holmes et al. (2000)	Qualitative interviews with 15 participants in 5 small businesses	Australia	Construction
Huang et al. (2011)	404 structured interviews with senior financial decision makers in medium- (n=231) and large-sized (n=173) companies	United States	Various
James et al. (2004)	Telephone survey of small businesses (n=1087). Face-to-face interviews with owners and/or managers (n=73), representatives of intermediary organizations (n=12), health and safety inspectors (n=12) and employees (n=21).	UK	Various
Lingard and Holmes (2001)	Qualitative interviews with 15 participants in 5 small businesses	Australia	Construction
Parker et al. (2012)	3 focus groups with owners (n=11) and 3 focus groups with employees (n=19) in micro and small companies	United States (Minnesota)	Automotive
Parker et al. (2007)	Questionnaire surveys of 939 employees and 156 owners/managers in 40 small and medium-sized businesses. Business safety audits of each business.	United States (Minnesota)	Manufacturing
Sørensen et al. (2007)	Analysis of secondary health and safety data for 2,799 small and medium-sized workplaces, based on telephones with employees and managers	Denmark	Various
Vickers et al. (2005)	Telephone survey of small businesses (n=1087). Face-to-face interviews with owners and/or managers (n=73), representatives of intermediary organizations (n=12), health and safety inspectors (n=12) and employees (n=21).	UK	Various

APPENDIX B: STRUCTURED INTERVIEW QUESTIONS

N^o	Speak	Notes	Obj
If you are calling FOR THE FIRST TIME start here			
1	*At the discretion of the researcher:* *Provide a polite 'hello'* *Introduce yourself* **– Name – School – Loughborough University.**		n/a
2	We are doing some research into how people get the guidance they need to do their job. I would very much like to talk to you about this. [How to go about your job tasks/training you have had/guidance you have been given/learning etc…]		n/a
3	Would you like to take part and help us with this?		n/a
4	This usually only takes about 15 minutes, but the answers can be as short or as long as you want them to be.		n/a
5	We can talk now, or I can call you back at time when it is convenient for you?		n/a
6	***If they want to talk continue to the No 9 (START OF INTERVIEW)*** **or** ***If they want a call back*** At the discretion of the researcher: ***Arrange a time and date to call back*** ***Ask for their mobile number or email if you do not have it*** ***Thank them for their help*** ***Then send them a text or email to confirm when you will call them back***		n/a

If you are calling BACK start here			
7	At the discretion of the researcher: Provide a polite 'hello' Introduce yourself **– Name – School – Loughborough University.**		n/a

8	I'm calling you back about the research we are doing into how people get the guidance they need to do their job. I would very much like to talk to you about this. [How to go about your job tasks/training you have had/guidance you have been given/learning etc…]		n/a
	If they want to talk continue to the No 9 (START OF INTERVIEW)		

	START OF INTERVIEW		
9	To help make sure I ask all the questions I need to I am going to be reading off a script.		n/a
10	I'd like to use some direct quotes form the conversations I have with you and others, we are recording interviews with getting on for about 200 companies and individuals, so there will be nothing that personally identifies your company, or you. Would that be ok to use direct quotes?		n/a
11	And to help with this, and the research, I'd like to record our conversation. Is it ok with you to record our conversation today? *YES* – I am now pressing the record button and our conversation is now being recorded. *NO* – I am not recoding this conversation it will not be voice recoded, but I am makings some notes, so this might take me a little time to do as we are talking.		n/a
12	I now need to ask you some other questions about you work and give you some information about the research so you are informed about it.		n/a
13	Please speak freely with me I want to learn from you. There are no right or wrong answers; we just want to hear what really happens in your job.		n/a
14	…and this voluntary, you can stop the conversation at any point.		n/a
15	Can I just ask, first of all, what your job is?		n/a
16a	And do you own the company?		2
16b	And do you manage the company?		2
16c	Are there any other managers? [find out who owns the company and the company structure] PROMPT: director/group of owners (how many) partnership, co-manager (how many people) etc…]		2
17	Ok, do you have any employees?		n/a

17a	How many employees do you have?		n/a
17b	*May I also speak with them?* *[arrange time if agreeable alternatively this can be done at the end of the interview see No 39]*		n/a
18	What service does your company provide?		n/a
19	Ok, and does your company ever work with or for other companies on large projects?		n/a
20	Ok, great. The next one is, how long have you worked at your company/COMPANY NAME?		n/a
20a	*For owner managers/self employed* How long have you had the company?		n/a
21	What do you do in your job? [job title/activities described]		n/a
22	How long have you been working at this company, or at a previous company doing this same type of work?		n/a
23	On a general note, due to the nature of the industry you are in, does this affect how you go about doing your job, so does the industry influence how you go about working?		2
24	And on a personal note, how do you know who to do your job? [Prompts: learning/ college/ other people/on-going guidance from various sources]		1, 3, 4
25	And what sort of training or guidance did you get? [Prompt: legislation, TV, written, poster, from the boss, from family, informal, formal, from a professional body HSE etc…]		1, 3, 4
26	Is there any information and guidance that you do not have access to but that you would like, if so what would it be? [Prompt: H&S, British Standards, manual handling, DSE etc…]		1, 3, 4
27	And… thinking about the last time you needed information and guidance about your work, where did you go to get this information? prompt: British Standards, Internet, training course, HSE website, TV, Friend, Manager, Colleague etc… make note of conversation]		1, 3, 4
28	How do you incorporate the new information and guidance [you have or that you get] into your job?		1, 3, 4
29	Are there any bits of the information or guidance that are not particularly useful? Which bits?		

29a	Ok, thinking about when you get new information and guidance, how much and which bits of this do you not understand? [prompt: which parts/bits are not useful, which bits do not apply and why?]		1, 3, 4
30	Do not ask if they work 'independently only'. Ok... if your company works with other companies on large projects, does this affect how you go about working?		1, 3, 4
31	Ok... taking a step back and thinking specifically about information and guidance to do with health and safe working, Where did you go to last time you needed information and guidance on health and safety? [Construction: Guild of master craftsmen/Federation of master builders/specific trade bodies (gas safe)/ Logistics: VOSA/ Road Freight Operations Policy Division Department for Transport/DfT Healthcare: Professional Standards Authority/care councils specific to the care provided (Nursing and Midwifery Council) General: Trade Unions/HSE]		1, 3, 4
32	Only ask if they have workers. Can you tell me how you pass this information [health and safety] around your company?		1, 3, 4
33	How do you know how to do your job in a healthy and safe way?		1, 3, 4

ASK N°.34 – 38 TO OWNER/MANAGERS ONLY			
34	*Only ask if they have workers.* How do you oversee healthy and safe working in your organisation? How do you make sure, your workers or the people you are responsible for, are also working in a safe way?		2
35	What things help you doing the job in a healthy and safe way,		2
36	… and what would be the things that prevent or hinder you doing jobs in healthy and safe ways?		2
37	Ok, so just thinking of an example in your head, and you can tell me an example if you want… say you have made a change to improve working in a healthy and safe way, how easy is it to maintain that healthy and safe work practice, and how do you do it?		2
38	How and when do you become aware that you need to learn, or do, something new in order for you, [and your workers], to work in a healthy and safe way?		2

	ALL PARTICIPANTS		
39	Alright, that's it, thank you very much for talking with me it been very interesting hearing what you have to say and this will really help us greatly with the project. I am also interested in talking with your workers/other people who are small business owners/other self-employed people. Would it be possible to talk to anyone else you know who might want to be involved in this research? *At the discretion of the researcher:* *Make arrangements if possible to talk to other owner/managers, self-employed people/workers.* *Offer to call back, make a arrangements for this.* **Offer that your contact details** can be passed on.		n/a
40	If you have any further questions just contact me, my phone number is **provide your office number**. Also if there is anything else this end can I contact you again.		n/a
41	And I appreciate how busy you are so I won't take up any more of your time. Thank you		n/a

If you only get to ask one question ask:
When you are doing you work, how do you know you are doing it safely?

	As the conversations ends/is ending …		
42	Do you know of anyone who might also want to speak with me? At the discretion of the researcher: Interested in speaking with people who own, manage or work in small and medium companies though to micros. … so that's companies with less that's 250 people in them Take details if any are offered. Provide your contact details again so they can be passed on		n/a
43	At the discretion of the researcher: Thank you for your time. Your help has been very useful It has been very interesting hearing what you have to say Thank you again and have a nice rest of day		n/a

APPENDIX C: SEMI-STRUCTURED INTERVIEW QUESTIONS

1. Please tell me about yourself and your current role/job?

2. What role does health and safety play in your day-to-day work?

3. Why do you approach health and safety the way that you do?

4. How do you know that you're doing your job in a healthy and safe way?

5. What health and safety training have you had in this role?

6. What health and safety training have you had in previous roles/jobs?

7. What helps or enables you to work in a healthy and safe way?

8. What, if anything, prevents you from working in a healthy and safe way?

9. Are there any aspects of health and safety that you would like to know more about?

10. If you need to find out about a particular health and safety issue, how would you go about finding this information?

11. Are there any other comments that you have about health and safety?

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