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Chapter 5

MAKING THEORY, MAKING INTERVENTIONS: DOING APPLIED SCHOLARSHIP AT THE IN BETWEEN

Sarah Pink, Jennie Morgan and Andrew Dainty

Introduction

While it is increasingly agreed that applied practice and theoretical scholarship should mutually inform each other, this commonly happens through the ‘use’ of an existing theory/ies to frame the design or analysis of an applied research project, or the subsequent use of applied research materials for the development of academic work.

In this chapter we outline and discuss an alternative model, which we argue generates a more complex relationship between applied practice and theoretical scholarship.

This model constitutes an *in between* where the theoretical-ethnographic dialogue can produce alternative ways of understanding the realities of the everyday worlds which applied research focuses on, thus generating new ways of creating innovative applied interventions that advance both theory and practice for change. Anthropologists might protest at this point that we are suggesting nothing new; that in fact anthropological ethnography has always developed through a dialogue between ethnography and theory – which happens throughout the process of research and representation and subsequently places ‘analysis’ across these practices rather than establishing it as a distinct phase in the analysis. It is certainly true that this ethnographic-theoretical dialogue is at the core of anthropological ethnography, and for Sarah Pink and Jennie Morgan, both of whom are trained as anthropological ethnographers this was a

‘normal’ way to work. However our claim is not simply to have worked in a conventional anthropological fashion to build theory with ethnography. Rather our argument is that the ethnographic-theoretical dialogue needs to be an acknowledged element of applied research and that is where applied anthropology (and indeed in other applied disciplines discussed in this book) has a key role to play. Working with Andrew Dainty, who has used ethnographic methods in organization and management studies research, gave us an opportunity to take new steps together in this field. Having made this point we insist that debate and reflection is needed about where this dialogue should be situated in the research and intervention process – which we acknowledge is also contingent on the parameters of specific research projects.

In developing our discussion, we draw on examples from an applied research project in which we were responsible for an ethnographic strand of research: *The Management of OSH in Networked Systems of Production or Service Delivery*. This project was undertaken with an interdisciplinary team of colleagues at Loughborough University, UK, and funded by the Institution for Occupational Safety and Health, IOSH (also in the UK). The context of our project is the question of how to help decrease the number of workplace accidents and injuries by developing a better understanding of how OSH knowledge is engaged by people who work in organizations. These insights are to provide the basis for a range of recommendations aimed at informing OSH professional practice. The particular sectors we look at include health care where there is an overarching stereotype of workers putting patient safety over their own, construction which is the most dangerous industry to work in, and logistics (customer deliveries) which has hazards associated with the mobile nature of the work. Given the importance of these sectors and the risks that working in them entail it is perhaps surprising that these questions are infrequently

approached ethnographically by researchers who wish to combine applied research with theoretical scholarship. One explanation for this is what Watson (2011) has referred to as there being in organization studies, a ‘discomforting necessity for ethnography’ – a need to get close to the action. However, he highlights there are difficulties in doing ethnography (and getting it published) within the organization studies field. This he suggests is because ethnographic research (or at least the way in which it is written up) falls below the levels expected of the genre. He sees raising the status of ethnography as an important step in addressing this, but it also about paying attention to what he terms the ‘technicalities and aesthetics of research writing’.

Through our collaboration, we have been able to come to these issues both through the organization studies field but also through anthropology. Here, the ethnographic-theoretical dialogue offers an advantage particularly in terms of helping to form the thick descriptions that are a cornerstone of good ethnographic writing.

OSH as a field of research

OSH research is a field that is little theorized from a social science perspective. This is unsurprising given that the field has traditionally emphasized applied approaches, which typify those found within social and organizational psychology (Guldenmund 2000). There are some exceptions, such as the study of OSH as part of sociological work on risk (e.g. Hutter 2001, and the work of Gherardi and Nicolini noted below). However, in contrast to other important research topics, such as climate change, that attracts many theoretically oriented scholars and researchers, on the surface OSH appears to attract little attention. Indeed it seems that OSH is more likely to be an everyday frustration to academics trying to get researcher safety protocols through approval boards, than to be the topic of funding applications that bring together

theoretical scholarship and applied practice. This is quite ironic when we consider that in the in the UK the Health and Safety Executive (HSE) reported that in 2012–2013, ‘148 workers were killed at work ... and 175,000 reportable injuries (defined as over-7-day absence) occurred, according to the Labour Force Survey’ (HSE, 2012–2013).

It is, perhaps, an acknowledgement of the apparent ineffectiveness of existing dominant approaches to OSH that theoretical debates around the production of safety knowledge have begun to emerge in recent years. Dekker (2003) highlights the philosophical differences in what he terms Model 1 perspectives (characterized by rationalist rote rule following) and Model 2 perspectives (associated with substantive cognitive activity). At the heart of Model 1 thinking is the notion that compliance with procedures leads to safer working practices, and that safety therefore relies upon knowledge of such procedures. In Dekker’s view, this produces a series of tensions in safety practice in that procedures can never account for every circumstance, and are often not required to produce safe outcomes. A Model 2 perspective, on the other hand, acknowledges that procedures are themselves shaped by subtle, localized judgments. In other words, actors can account for the situated nature of the hazards that they confront in contingent ways. Dekker reveals how these bifurcated perspectives on OSH lead to a double bind for those confronting emergent hazards; inflexible rule following can lead to procedures that fail, whereas procedural adaptations might themselves fail. In their analysis of how these two perspectives play out in safety research, Hale and Borys (2013) highlight how a gap emerges between the abstracted rules that govern OSH and the lived realities of how it is practiced. It is understanding the gap between procedures and practice that organizations can establish the interventions that help their employees to work safely (Dekker 2003). One way that this can be achieved, of course, is to understand the

actualities of safety practice, and the complex ways in which rules and adaptation enmesh together through practical activity. Within OSH research this has been emphasised in recent provocations provided by Hollnagel (2014) who espouses a focus on what goes right (termed Safety-II), rather than on avoiding problems (Safety-I). As Hollnagel states, Safety-II ‘start[s] from a different position because it tries to understand how everyday work succeeds’. Although relatively nascent within the OSH field, such debates highlight the need for consideration of the situated, everyday practice of safe and healthy working, and accounting for this in the policy making process.

Applied anthropology, we argue has a role to play in both making sense of and crafting possible interventions in this field. Yet, we insist that this needs to be a kind of applied anthropology that does what anthropology often does best – that is to look under the surface of what is already being asked in this field, to twist around the research question, and to problematize what we think we already know. To achieve this, we propose, the ethnographic-theoretical dialogue is essential. It is the ‘what if’ of theory that proposes alternative understandings of the world, and it is ethnography that both helps us to make these understandings, and to make sense of them through ‘real’ scenarios developed on the basis of our fieldwork experiences. It is by playing in this zone where theory and ethnography make each other that the creative insights of our work as anthropologists emerge. It is these insights that we argue need to contribute to questions relating to life and death issues in the work place – rather than a service ethnography that will answer the managerialist questions that often inform research about how to ‘improve’ what is called OSH compliance – that is, in case it is not obvious, the idea that OSH will improve if workers comply with the regulatory procedures that are designed to ensure that accidents should not happen. As we

illustrate through examples below, the ethnographic-theoretical dialogue can lead to the design of unexpected practical interventions, and ‘solutions’ to ‘problems’ the parameters of which are not predetermined in advance but are revealed through the research process itself.

In the above what has been depicted as a Model 1 or Safety-I perspective represents a rather extreme view of OSH regulation, which, if actually practiced in such a way, would not be viable or even worse, could exacerbate safety risks. As we have learned from the OSH practitioners who we have met and discussed our work with, although the regulatory frameworks of OSH can be interpreted as part of neo-liberal anticipatory logics – like ethics discussed in chapter 2 – in reality there is a recognition that what Pels in the context of ethics has called ‘technologies of the self’ (2000) or what design anthropologists would see as a form of everyday improvisation also form part of the ways in which people stay safe at work. Our criticism is therefore not so much of the OSH community, where this tension is acknowledged to some extent (Hale and Borys 2013). Rather, we are concerned about the lack of formal recognition of OSH as a technology of the self and as part of the improvisory practice of humans, and indeed in our publications on this topic have called for increased formal recognition of them in OSH contexts.

In the following sections we discuss how a sustained ethnographic-theoretical dialogue might contribute to applied research in this field. Indeed, ultimately this goes beyond merely being a dialogue between ethnography and theory, and becomes a conversation that includes application, and sometimes proposals for intervention. Additionally practice-based insights rooted in ethnography can, and do, like any academic ethnographic project challenge theory, and as such participate in disciplinary or interdisciplinary theory-building. The model we explain here will not

be suitable for all applied research projects, and is most appropriate for longer term projects and projects where team work can allow different researchers to be differently distanced from research materials during the research process. However, as we suggest in the conclusion, the insights gained from a discussion of this way of working also have implications for projects that need to be modeled in different ways and according to shorter timescales.

In the next section we outline our involvement in the *Management of OSH in Networked Systems of Production or Service Delivery* project, the field of OSH research that we see our work as responding to, and the contrasting approach that we wished to take to explore how OSH was experienced, learned, performed, known and shared. We then outline how in practice we developed a way of working across ethnography and theory and how this dialogue became a conversation with the applied element of our work. In this project we used ethnographic materials from short-term fieldwork into occupational safety and health in the healthcare, logistics and construction sectors to develop theoretical scholarship that contributes to material culture studies, human geography, mobility studies, organization studies and other academic fields, some of which would not initially appear directly relevant to occupational safety and health research. However, as we show, this theoretical work is not simply an alternative output for our research. It is in fact also part of our work as applied anthropologists in that it has enabled us to develop new routes to conceptualizing how people already stay safe at work (or, as Hollnagel (2014: 176) defines it, the ‘other story’ of how work succeeds). Through this we have been able to offer safety and health experts alternative concepts through which to think about how to develop and implement OSH policies, and workers new insights on their everyday

practices that (typically, within safety management and research) are neither acknowledged or reflected on as contributing to safe working

Finally, we argue that this approach enables us to engage theory to consider practical problems in ways that go beyond its conventional applications. Instead it involves using applied ethnographic research materials, which focus on very mundane elements and activities in everyday working life, to develop theoretical work that advances academic fields of scholarship. It then brings these advances to bear on the development of new ways to approach practical applied problems relating to central societal issues – including, as in this case potentially fatal accidents at work. Our agenda was to make applied research thoroughly theoretical and theoretical scholarship thoroughly applied. Indeed a subtheme of our argument is that when applied research seeks to address ‘real’ problems that are experienced in the world – like the problem that there are too many people dying in accidents at work – it offers to theoretical scholarship a complex state of affairs which indeed can tell us more about contemporary society than just about how OSH operates as part of it.

Being anthropological in an interdisciplinary context

Some anthropologists have developed commentaries related to OSH. For instance, most notably Hannah Knox and Penny Harvey have discussed OSH in relation to their analysis of the relations and rituals of road building in Peru. We concur with their general approach and argument, and in particular share an interest with them in the anticipatory nature of OSH regulations and the ways that they deal with uncertainty (Knox and Harvey 2011: 145) (Pink et al 2015). However our work is rather differently positioned to traditional anthropological scholarship. It was undertaken in an interdisciplinary context working alongside academics from engineering, safety,

logistics, health, and ergonomics fields. It was also developed in dialogue with research partners in and gatekeepers to the industries with which we were collaborating.

In this section we first outline our involvement in the project, the research questions we were responding to, and our own critical interrogation of these questions. The questions were also of our own making, in that we had contributed to writing them in response to the brief for our project. Yet we also knew that the anthropological theory that would guide our research design, and what we were actually likely to find when we did the research, would most likely challenge the concepts that the research was intended to explore. For example, while our research project was in part concerned with questions around if and how OSH knowledge ‘flows’ in organizations, we needed to examine the notion of knowledge and the idea that it would flow, theoretically. This does not mean that the idea of knowledge flows is not a good metaphor for thinking about ways of learning and knowing about OSH, but rather that for many anthropologists this is a difficult compromise. What this meant for us was that in order to be able to answer a question about knowledge flows, we needed to translate this into concepts that could be researched ethnographically. These concepts also needed to be able to bridge points of difference between our theoretical commitments and the guiding logics through which the practitioners and OSH experts understand the realities of their everyday work contexts. This resulted in our focus being on how OSH was experienced, learned, performed, known, shared, and communicated. Here we briefly set out some of the differences in expectations of the concepts that were involved in our project, and how we sought to resolve these in our research process. In a later section we will reflect further on how we then used our findings to re-engage with the research questions.

OSH Knowledge: One of our tasks was to produce a new or deeper understanding of how knowledge about OSH flows in organisations. While we were on the one hand committed to the principle of understanding how OSH was manifested, and learned and passed between participants in our research, the concept of OSH knowledge and its transferal between people was more challenging. From an anthropological perspective this notion is confronting in part because the question of knowledge, its transmission and the relationship between concepts of knowledge and knowing have generated much debate in the discipline. If disciplines are what Marilyn Strathern has called ‘communities of critics’ (2006) then anthropology is particularly powerful in this sense. The anthropological debate around the concept of knowledge transmission is no less so. Here, the debates and differences of emphasis tend to fall between those who favour cognitive theory and those who lean towards phenomenology, or an approach that focuses more on the experiential. Yet in common, as Trevor Marchand has put it in describing work drawn together around the concept of knowledge in anthropology although there was divergence ‘in theory and method, there is mutual recognition that knowledge-making is a dynamic process arising directly from the indissoluble relations that exist between minds, bodies, and environment’ (Marchand 2010: S2). The discussion also involves the relationship between the concepts of *knowledge* on the one hand and *knowing* on the other. Anthropologists have indeed sought ways to understand how embodied and often unspoken ways of knowing might be learned between people, through human activity and experience of the world, in movement and as incremental processes (Ingold 2000, Harris 2007, Marchand 2010, Pink 2015). These ideas also resonate strongly with work in organization studies that (like this field of anthropology) draws on Lave and Wenger’s approach to situated learning, and communities of practice (Lave and

Wenger 1991, Wenger 1998). As such Davide Nicolini, Silvia Gherardi and Dvora Yanow's (2003) edited volume on *Knowing in Organisations*, Gherardi and Nicolini's (2002) work on the culture of safety practice in construction, and more generally work in the field of organizational aesthetics takes a more sociological perspective to organization studies, while following the same critical shift from the concept of knowledge towards that of knowing. In relation to this strand of theoretical scholarship about knowledge therefore, we understood knowledge to be a concept that stood for an objectified entity – a representational category that can be documented and verbalised. Knowing in contrast, we understood to be an embodied and experiential way of sensing the world. The kinds of knowing we were most interested in researching were performative, they might be verbalised, but we suspected that those that we would find most interesting and informative for our project would be those that were habitual, and perhaps never or almost never spoken about. In particular we were interested in how OSH as representational and OSH as performed would be relational to each other.

Flows: The concept of flow is likewise an important way of thinking in the social sciences and humanities. It has been used variously – to speak about flows of capital, power and the making of global realities (e.g. Appadurai 1996), as well as to understand the flow of everyday life as a kind of processual ongoingness, difficult to represent (discussed in Pink 2012) and also to understand smaller scaled environments such as home and the ways in which intangible or invisible elements flow around them – such as air, heat, smells and sounds. For us the idea that knowledge as an objectified entity – in the form of representations of OSH knowledge – might flow was difficult to reconcile with our understanding of knowing outlined above. While cognitive theorists might understand mental representations as being

transmitted between people, the approach that we take offers a different approach, as Ingold, inspired by the work of ecological psychologist James Gibson, puts it ‘For what is involved, [...] is not a transmission of representations, as the enculturation model implies, but an education of attention’ (2011: 37).

Moreover, although the concept of flow did not match these anthropological theories of knowledge, we were mindful that for our funders, our industry partners and many research participants (particularly safety experts and managers) notions of flow offer a useful model for understanding how OSH circulates within their organizations, and informs the design of workplace learning and communication techniques. For example, in the construction industry a classroom style of induction for new workers (using verbal, textual, and audio-visual instruction) is widely held to be an effective means of ensuring good workplace OSH as modelled on notions of knowledge passing from trainer to trainee and ‘flowing’ out onto and around the building site. To undertake research in this sector we were required by our industry partners to participate in training modelled around notions of flow before commencing our ethnographic fieldwork. Jennie studied for and sat an online health, safety, and environment test administered through the UK-based Construction Skills Certification Scheme to acquire a site visitor card (CSCS <http://www.cscs.uk.com/>) and took part in on-site induction training. We thus sought to develop an approach that was not critical of the OSH community itself, nor dismissive of local ways of understanding everyday workplace realities, but rather enabled us to work collaboratively and creatively ‘in between’ these points of difference to develop new ways of understanding occupational safety: ways that would re-engage both our stakeholders *and our own* theoretical and practical preconceptions about how safety operates in these organizational settings. Indeed, while these categories were

theoretically confronting for us, we shared with the wider team of researchers, IOSH, the industry stakeholders, and research participants the desire to understand how OSH was known, and performed and what this would tell us that would help to make workplaces safer. In this sense the categories of knowledge and flows worked as shared stopping points that we could use to talk across the project with.

In response to the project brief we developed an approach informed by phenomenological anthropology and anthropology of knowing, which framed the way we designed our fieldwork and analysis. A key document through which we consolidated this approach was our research proposal; submitted initially to our funders, used as a platform for our ethics submission, and later shared in a summary version with our advisory boards to seek critical feedback. In the proposal we used an appendix to provide details (beyond the project level description) about the ethnographic strategy, methodologies, and experience base we would draw on. This was not simply a pragmatic ‘how to’ discussion but, informed by our conceptual commitments and biography of applied-scholarly work, set-up the theory-research interplay that would subsequently guide our ethnography. For example, we explained how our choice of specific research techniques (including the visual and task-based methods discussed below) was inseparable from our aim of understanding everyday OSH practices to conceptualize the interrelationship between individual action, knowing, and the environments in which these are routinely performed. We presented this anthropological approach at several meetings at the outset of the project to our interdisciplinary colleagues, industry (‘steering group’), and academic (‘scientific consultation panel’) partners. To communicate our strategy we focused on three key concepts that had emerged from our reading (outlined above) of a phenomenological anthropological approach to knowing and learning: those of *perception*, *movement*,

and *place*. We explained to attendees that these concepts provided an analytic prism through which we would explore tacit – or taken-for-granted and usually not spoken about – ways of knowing how to undertake work in safe and healthy ways. While these concepts emerged from our reading of academic scholarship, they also provided practical ‘ways into’ designing the fieldwork, and around which we could begin our dialogue ‘in between’ theory and applied research. These concepts had methodological implications for our project, in that they pointed us towards researching occupational safety in particular ways. For instance, studying OSH not only as abstracted representation encountered in organizational guidelines and procedures but as adaptive embodied practice. To enact this move from theory to applied methodology we thus needed to translate these concepts into (as we described to attendees at these meetings) a set of empirical realities that we intended to explore through our ethnographic fieldwork. Here, *place* encouraged us to consider how the spatial, physical, material, and social environment of the workplace interacts with knowing about safety; *movement* a focus on action and experience to explore how tasks are performed in practice; and *perception* an interest in bodily, sensorial, and perceptual practices of knowing that go beyond what can only be observed or spoken about. These meetings were also an opportunity to build our partners’ expectations into the fieldwork design and to co-create an approach that would be acceptable in the field as well to achieving our research objectives. We asked, for example, what outcomes they were especially interested in, and what their experience working across the sectors would suggest may emerge from our research or challenge our proposed methods. We learned that while our theoretical commitments challenged dominant OSH perspectives, these were not incompatible with partner expectations. They were interested, for instance, in the potential for our ethnographic attention to ‘how

everyday work succeeds' (Hollnagel 2014) to identify the specific features of a workplace, and the persons, things, and activities, that come together to create the environments needed for learning, sharing, communicating, and enacting OSH to happen effectively. Such insights held potential to be harnessed by practitioners to identify enablers and barriers within their sectors and organizations to safe working.

The theoretical-ethnographic dialogue: through the practice and representation of fieldwork

Having considered how we critically interrogated our research questions through the process of designing the project and beginning dialogue with our industry and academic stakeholders, in this section we outline how – through the practice and representation of our anthropological fieldwork – we further developed a way of working 'in between' ethnography and theory.

To research worker-OSH we developed a short-term intense ethnographic methodology, which was collaborative, participatory, and theoretically informed. We undertook fieldwork within the United Kingdom at two building projects, a logistics warehouse, and a healthcare trust, spending up to six-weeks at each. Our intent, here, is not to outline this method in detail (instead, see Pink and Morgan (2013)) but rather to reflect on aspects of this practice which fostered the ethnographic-theoretical dialogue central to our work as applied anthropologists. Certainly, short-term ethnography as we have advanced it is characterized not only by shorter timeframes than the (typically) year-long immersion of more traditional anthropological approaches, but by 'a sharply focused dialog [sic] between research and theory' (Pink and Morgan 2013: 352).

One way that we achieved this dialogue was through structured and interventional ethnographic techniques. In addition to more conventional interview and observational methodologies we employed visual (video and photography), re-enactment, and walking techniques. These were deeply influenced by our conceptual commitment to examining situated-practice and the non-representational elements of everyday life, yet also thoroughly applied in that they were collaboratively developed as appropriate to the problem of OSH knowledge flows and specific to the workplace settings in which we worked. These methodologies represented and enabled us to communicate to participants our research interests, thus facilitating mutual reflection on core issues. Indeed, as Sarah Pink (2006: 14) has elsewhere acknowledged in her writing about applied organizational ethnography:

[...] in the absence of existing manuals or guides to how to operate in these institutional or organisational cultures, it means applying one's anthropological eye to the institutions for whom one might work or carry out consultancies in order to inform our own actions and practices of representations within them.

We recognized, for instance, that given the particular circumstances of our research it would not be ethically or pragmatically possible to film or photograph workers undertaking tasks *in situ* in healthcare and logistics settings when patients/customers were present (although this is possible for other research approaches – see for example chapter 4, this volume). Instead we used re-enactment techniques to create intense ethnographic encounters through which to explore, with our participants, the unspoken, tacit, or otherwise routine and habitual elements of their OSH practice.

These methodologies were not new, having trajectories developed through our own (e.g. Pink & Leder Mackley 2014) work, yet they took on specific inflections in the context of our project, research questions, and theoretical interests.

In the healthcare fieldwork Jennie asked community nurses and therapist to show on video-camera how they apply disinfectant hand-gel, and in the logistics fieldwork customer deliveries workers to show, while she photographed, techniques for lifting and moving goods. By asking workers to re-perform these practices set apart from usual workplace activity, and to articulate how they ‘knew how’ to do so effectively, rich insight on the embodied, sensory, and affective knowing involved in staying safe at work was revealed. Our rejection of the concept of OSH-flow was also further confirmed, as ethnographic materials demonstrated working safely to be a situated, embodied, and incremental process involving individual moments of improvisation and tacit knowing as much as shared explicable practices. For example, we found that manual handling by logistics workers was guided not only by taught organizational techniques (accessed through training and handbooks), but emerged from a subtle individual process of intuitively perceiving what ‘feels’ safe and adapting lifting, holding, and carrying techniques in response to a complex interplay of material, bodily, and even climatic (when moving outdoors) environmental features.

Thus, as this discussion has begun to highlight, a sharply focused ethnography-theory dialogue was achieved by bringing our emerging findings into conversation with key research concepts; including those we were seeking to unsettle such as OSH-flow. Here we see (typical of anthropological ethnography) how fieldwork and analysis were not distinct phases in our project but entangled across research and representation. While the above focuses on how we achieved this

through our fieldwork, this dialogue was likewise pushed through writing academic articles contributing to scholarship not usually connected to by safety research. This representational work was not (as we introduced earlier) considered an alternative output for our research (over and above the project reporting detailed below) but was at the core of how we work as applied anthropologists, in that it has enabled us to conceptualize OSH in new ways, and on the basis of the analytical work undertaken in these articles identify possible routes for where and how practical interventions might best be made. Indeed, we found it *necessary* to connect our ethnography to theoretical scholarship to begin revising the agenda of applied safety-research in a way that more conventional approaches did not enable. Thus, writing these articles (similar to the core concepts outlined earlier) functioned as vital ‘stopping points’ to creatively probe in between theory and ethnography, and was ongoingly undertaken during the project rather than being confined to a discrete phase. Several articles were written, submitted, and/or published while we were conducting our fieldwork, and these were read by our project funders and relevant research participants who supplied feedback which further helped connect our thinking and writing with applied outcomes (eg., Pink and Morgan 2013; Pink et al., 2014a; Pink et al., 2014b; Pink et al., 2015).

One example is our writing on the ‘the safe hand’ (Pink et al., 2014b). This theme emerged directly from our fieldwork with workers in a UK-based healthcare trust, and is a theme through which interests in our research questions held by our interdisciplinary colleagues, funders, industry stakeholders, and participants converged. When Jennie accompanied nurses and therapists on community healthcare visits she was encouraged (despite not having any *actual* contact with patients) to adopt their everyday hand-hygiene routine of using disinfectant gel. Recognizing the

predominance of this practice, we designed a visual-ethnographic research activity around it, and to communicate our emerging research themes and methodologies to funders and academic stakeholders designed a participatory ‘feedback’ exercise (called ‘Are your hands clean?’) for a reporting workshop hosted by IOSH. At this workshop, Jennie supplied attendees with bottles of hand-gel, invited them to apply it, and asked them to consider a range of questions intended to elicit insight on the institutional, material, sensory, and affective ‘know how’ that informed this practice (e.g., ‘how do you apply the hand-gel?’, ‘how do you know you are doing so correctly?’, ‘how does using it make you feel?’, ‘what do you think it is protecting you from?’, ‘how do you know that it will protect you?’).

Yet, to ‘twist around’ this practice we also found it necessary to connect our ethnographic work to scholarship that would enable us to better understand how the use of material substances (like gels, gloves, and uniforms in healthcare) are part of the ways safety is routinely performed, and to consider the meanings attached to such practices and materialities. In writing an article on this topic we looked to material culture studies and phenomenological anthropology, which directed our attention to ‘the qualities and affordances of the materialities of organizational safety cultures’ (Pink et al., 2014b: 426). We did not put ethnography in the service of *theory* but, guided by an applied agenda questioning how OSH is learned, shared, and enacted, brought it into conversation *with theory* to generate new understandings about how safety is achieved. Specifically, this scholarship helped us to reconsider subtle ambiguities of hygiene practices that we had observed during fieldwork: for example, a practitioner creatively adapting the working uniform by removing the fingertip of a glove to engage tactile knowing to take a blood sample safely (Pink et al., 2014b: 437). It inspired us to analyze such ambiguities not through the predominant safety-

research lens of worker compliance but, taking a phenomenological anthropological approach, as attunements to the unique entanglements of materialities, sensory perceptions, moralities, social relationships, and affective moralities from which workplace scenarios emerge. Moreover, by recognizing the uncertain and ongoingly changing nature of everyday life (as this scholarship collectively encourages) we came to see how the ability of workers to adapt and improvise towards safety is crucial to effective OSH. Writing this article, and others on the topics of mobile media and OSH (Pink et al., 2014a) and safety in other peoples' homes (Pink et al., 2015), was crucial to our analysis and reporting. However, our conceptual work was inseparable from our applied goal of identifying potential routes for practical interventions. By theorizing the relationship between the hand, tactile knowing, materialities, and safety we concluded that the real challenge for OSH managers and experts is to support and ensure that workers adapt towards (not away from) safety, rather than designing interventions around increased regulatory measures. Or 'to consider not how interventions might be made to "improve" OSH through producing more standardized "correct behavior" but instead to consider how interventions might enable health care workers to make safe materially mediated innovations' (Pink et al., 2014b: 439).

From Journal to Report: working 'in between' disciplinary perspectives for applied outcomes

Core to our research was incorporating our ethnographic findings and anthropological understandings into a final report submitted for publication by our project funders with an interdisciplinary and practitioner focused readership (Gibb et al., forthcoming 2015a). We did not conceive of the report as the endpoint (or ultimate representation)

of our ethnographic work, but rather another key stopping point in an ongoing theoretical-ethnographic dialogue used to talk across the project. This conversation continues beyond the project's formal lifespan determined by funding and staffing arrangements as we continue to develop our conceptual work through ongoing writing projects (including this book chapter).

In the report we re-engage the core questions supported by our funders about OSH-flow¹ through several interrelated ethnographic concepts; all of which were foreshadowed and developed through our project-planning, stakeholder dialogue, fieldwork, and academic articles (outlined above). These concepts are: *knowing about safety (rather than knowledge)*, *learning about OSH*, *dealing with uncertainty*, and *improvising towards safety*. Space, here, does not permit us to deal with these concepts individually, but the important point to be made is that this practitioner orientated and project reporting output again illustrated the impossibility of separating the theoretical from the applied in our research. We invite practitioners to reevaluate the question of how to make workplaces safer and healthier through these concepts, and encourage them to consider the implications of these understandings for identifying practical interventions.

One example is how our ethnographic insights on *learning about OSH* challenge assumptions about knowledge acquisition and communication inherent to notions of OSH-flow. Our ethnographic encounters with healthcare, construction, and logistics workers, and own reflections on learning how to research safely in these fieldwork contexts, show that people learn not only through what they are told or read, but through their ongoing embodied, sensory, and affective interactions with the people, things, spaces, and places that constitute the workplace. In the report we translate these ethnographic insights into new applied understandings by bringing

these together with theories of learning which encourage us to conceive of OSH as situated and performed. This includes those that (as introduced above) draw on Lave and Wenger's (1991, also Wenger 1998) notion of situated learning and communities of practice (e.g., Fors et al., 2013), but also Ingold's phenomenological anthropology which argues that learning involves 'training in everyday tasks whose successful fulfilment requires a practiced ability to notice and to respond fluently to salient aspects of the environment' (Ingold 2011: 166-167). Learning is understood to emerge incrementally from an ongoing interplay between practical activity, embodied and sensory perception, and the environment, and this approach enables us to move beyond the transmission model of learning (outlined earlier) to report instead on how 'knowing OSH' happens at this intersection as workers attune their responses to specific workplace contexts and scenarios. Our reporting on ethnographic materials is thus informed by these theories, yet we do so by reconfiguring concepts into a set of applied questions focused on learning about OSH (e.g., 'what is it that workers, in different contexts, learn to be attentive too, in order to make decisions (consciously or unconsciously) about safety and health? What are the usually unspoken ways of performing OSH, and what prior learning do they draw on?'). Moreover, by setting out this sustained anthropological argument we encourage OSH-practitioners to use this alternative understanding (i.e., that people learn incrementally and from diverse sources including the tacit) to consider its applied implications for (re)designing OSH-management and training strategies. In the construction sector, for instance, this might point towards the value of scenario-based training, site-specific rather than generalized information, and induction undertaken moving through the work area rather than (as is common practice) a classroom style of training set apart from, and usually prior to workers encountering, the site. These suggestions do not respond to

managerial agendas or OSH abstractions, but were arrived at in a round-about (or ‘twisting’) way through an ethnography-theory dialogue: they are thoroughly theoretical shaped by our phenomenological anthropological understanding about how learning happens and in what moments, and ethnographic emerging from our attempts to make sense of everyday workplace realities. These were also shaped through participatory dialogue with our practitioner partners. Indeed, without the creative and playful moving between research, theory, and the applied approach outlined in this chapter, we doubt it would have been possible to arrive at project-reporting proposals like these.

Crucially, the report also created a space to work ‘in between’ disciplinary perspectives. Through discussion with our colleagues, it was decided that the ethnographic research would be treated in a stand-alone section rather than being integrated with materials generated by team members working from alternative disciplinary starting points. This had the benefit of constructing a space from which to probe between disciplinary expectations and conventions to capitalize on the complimentary yet distinctive perspectives that our project team offered to the applied problem of how to improve workplace safety. One example in the final report is the team’s engagement with the key theme of adaptation and OSH. This theme cut across the project findings: in the ethnography reporting through the concept of *improvising towards safety*, and in the structured interviews and focus group reporting (undertaken and written by our colleagues) the notion of *work arounds*. It also connected to a question that our industrial partner steering group were especially interested in and throughout the research challenged us to engage with: ‘why do people not do what they know they should do?’.² While our anthropological commitments point towards understanding improvisation as a necessary aspect of working safely in ongoingly

changing sensory, material, social, and affective configurations, our colleagues working with different methodologies (focus groups, structured interviews), participants (OSH managers), disciplinary perspectives (human factors, organizational psychology), and theoretical commitments (especially to knowledge flow) understand adaptation through the more conventional safety-research and management concept of work arounds. One perspective, sometimes espoused within the safety management and research literature, is that work arounds are considered to demonstrate worker ‘failure’ to comply with institutional-OSH leading to greater risk of severe injury (e.g. Halbesleben 2010). However, working ‘in between’ these perspectives through collaborative writing in the discussion section of the report generated more nuanced understandings by encouraging the team to consider (as we introduced earlier) how the relationship between OSH as representation and OSH as performed are always relational. Or, as was reflected on in the report:

‘The ethnographic work [...] suggests that workers will always make changes to the ‘formal’ procedures and that this is a normal part of human behavior and should not be seen as negative. The interviews and focus group data would suggest a small, but significant change to this claim, namely that these changes should not ‘automatically’ be seen as negative’ (Gibb et al., forthcoming, 2015a:119).

By working between these perspectives it was not the team’s ambition to make value judgments about adaptive practices, but rather to reflect on what this relational understanding might productively offer for how OSH is understood and managed. The report argues that the real challenge for safety managers and policy makers is to

acknowledge that adaptation ‘will happen’, and given its inevitability an effective management strategy (rather than focus on increased regulation and tighter compliance measures) is to ‘consider behavior as a resource’ that can be successfully applied to the challenge of avoiding accidents in the workplace (Gibb et al., forthcoming, 2015a:120). Drawing on work by Hollnagel on ‘Safety II’, the team concluded that OSH practitioners would be well advised to shift their focus ‘from ‘everything’ going right to ‘enough’ going right, and from avoiding failure to ensuring success’ (Gibb et al., forthcoming, 2015a: 121). These applied conclusions do not just integrate but *emerge precisely from* the dialogue between the different theoretical standpoints, disciplinary perspectives, and fieldwork materials through which our project team approached our core research questions.

Conclusion: for an applied-theoretical scholarship

In this chapter we have set out one way that an applied ethnographic-theoretical scholarship has been developed. As we pointed out at the beginning of this article, the model we have developed in this project is not the only possible version of this. This model is more suited to longer term projects where there are enough researchers available to be able to ‘see’ the project from different distances and directions during an intensive research process. Our ethnography was, as we have described it ‘short term’ (Pink and Morgan 2013) but these lengths of fieldwork were not necessarily because there was urgency to report on our ethnography within a short timescale. Rather it was related to the wider project funding and structure, within which we had allocated 6 weeks fieldwork to each site, and dedicated the rest of the time to analysis and report writing. Our academic theoretical writing was thus part of our analytical and reporting process. Far from it simply being a case of academics wishing to get

some publications out of an otherwise applied project, for us the theoretical work was completely inseparable from the applied process – and vice versa.

Other projects might not offer this luxury, in that often to meet the deadlines of research partners we may need to report on ethnographic findings before undertaking in depth theoretical work. Such projects do not necessarily ‘suffer’ from this configuration – we are not making an argument for how it *should* be. Rather in such work the ways that theoretical analysis is embedded will be less explicit, but can both inform the way ethnographic findings are presented to research partners and be developed further in later works. Indeed it is important to realize that applied research and theoretical and methodological development is not something that should be thought of in isolated project-by-project sense. Instead, what we learn and theorise as an outcome of one piece of research is part of an incremental process of contextual and contingent generation of theory, methodologies and practical applications. It is never alone, but always relational to other work we do. The biographies of methods (Pink and Leder Mackley 2012), approaches, and theoretical fields of debate happen over time, and feed in and out of projects. The question becomes therefore not how theoretical-applied research *should* be done, but what can we learn from it when it is configured in particular ways in relation to researchers’ and scholars’ existing bodies of knowledge and ideas, methods and the new work that will emerge with it. This is where and why a reflexive approach to the ways in which we work as applied scholars is important. Since if we do not understand how we ourselves produce and share knowledge and the implications of this for the sites we wish to understand and intervene in, then we stand little chance of being able to comment on how other people’s knowledge ‘flows’ in their organizations.

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Notes

¹ The project, as established in the funded bid, 'looks at what types of OSH knowledge and evidence circulate and work in organisations involved in networked delivery systems, how organisations interpret information and, in turn, how this influences OSH'.

² This question has also characterized industry interest in a follow-on project we have been involved in which explores OSH in micro, small, and medium-sized enterprises (discussed in Gibb et al., forthcoming 2015b).