

RETHINKING PROFESSIONAL RESPONSIBILITY: MATTERS OF ACCOUNT

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INTRODUCTION

In June 2009, an Air France Airbus flight 447 crashed in the Atlantic Ocean en route from Rio de Janeiro to Paris. All 216 passengers and 12 crew members were killed, making it the worst accident in the history of French aviation. The final report of the crash investigation (AF 2012) listed a number of mingled factors. Apparently ice formed inside the small ‘pitot tubes’ on the plane’s underside, interfering with the airspeed sensors. These caused the autopilot to disconnect, and the (human) pilots assumed manual control of the aircraft. Over the next three minutes, the pilot increased and then levelled the plane’s nose-up pitch in response to a series of inconsistent air speed readings and intermittent stall warnings being received. However the flight path had become ‘destabilised’, leading to a stall and rapid descent. In the final report, the pilot’s actions were described as ‘inappropriate control inputs’ (AF 2012), but this was only one dimension in an interwoven assemblage of technological, material, and human forces that together resulted in a horrific crash. Nonetheless, aviation experts interviewed in an analysis of these events placed the central accountability on human error: the key problem, they stressed, was inadequate pilot competency on manual landings, and inadequate pilot training (BBC 2012).

This is not an uncommon response, particularly in linking professional responsibility with competency and with learning. Professionals are often held personally accountable for complex situations involving myriad elements that are fully entangled with – influencing as

well as influenced by - human decisions and actions. Sometimes this is called scapegoating, as when a particularly visible actor attracts the full measure of societal wrath and guilt in an inexplicable situation. We see examples of this periodically in child protection services: a recent well known case in the UK was the sacking of ex-children services director Sharon Shoesmith in the case of Baby Peter Connolly, a child who died in 2007 with over 50 injuries despite 60 visits by social services professional (Butler 2011). But more broadly, professionals in services ranging from social care, education, and police services to medicine and aviation are expected to mediate the increasing general anxiety of a complex society. Whether or not we agree with Beck's (1992) analysis of our 'risk culture' increasingly characterised by a 'negative logic' framing risk as danger and seeking to identify who has done the wrong thing, arguably a key expectation for professionals is to manage our societal risk and solve complex problems. Calls for professional responsibility often are based on assumptions that problems have identifiable causes, that humans can take decisions to resolve them, and that there are clear imputabilities when bad things happen.

This may be why professional responsibility has traditionally been treated as a defining site for the nature of professionalism itself, invoking an ideology of professionals' obligations to both the client's interests as well as the needs of society broadly. The existing literature on professional responsibility is characterised by much moral prescription, opinion, and concern for methods to educate professionals to perform more responsibly. These circulate amidst complaints and public concern regarding professionals' perceived irresponsible practice and failure to appropriately regulate responsibility. Professional education and training are frequently invoked as key sites for developing professional responsibility. Solbrekke (2008a:77) is among those who argue that higher education – and society in general – must explicitly educate professional responsibility, to 'ensure that we have qualified professionals

with the kind of intellectual and cultural capital necessary to make wise decisions in light of the challenges of the 21st century’.

But does this emphasis on individuals and individual decisions really help to understand, account for and respond to the complex situations in which professionals must act everyday? Perhaps it is more comforting to focus on human skill and imagine that this can be resolved through training and discipline, rather than attempt to consider how responsibility might be distributed among the heterogeneous entanglement of Airbus designers, autopilot practices, pitot tubes, ice, sensor readings, human adjustments and volatile airspeeds. Surely these material and technological assemblings cannot be simply banished to the background in an anthropocentric move that insists upon humans taking the central role of the story, whether it focuses on risk and danger or upon more mundane service and care. Literature on professional practice increasingly shows that its stakeholders are multiple, demanding conflicting accountabilities (Cribb 2005; Stronach et al 2002). Clearly these are not simply human and social stakeholders, but material ones too.

This chapter argues that professional responsibility deserves a more sociomaterial sensibility than it frequently receives in discussions of professional learning and professional accountability. A missing or obscured element in these explorations is often the materiality of professional practice – the mixing of the social and personal with the material elements of bodies and flesh, wind and fire, objects, technologies, texts, institutions, natural forces and so forth. A ‘sociomaterial’ approach to understanding professional responsibility adopts what some refer to as a relational ontology: capacities for action, as well as knowledge and phenomena, are performed into existence through associations. These associations of both human and nonhuman elements, or perhaps more aptly, ‘intensities’ as Bennett (2010) refers

to them following Deleuze, emerge in precarious assemblages (Fenwick et al. 2011). When notions such as individual agency, morality and intentionality are challenged by foregrounding these sociomaterial assemblages comprising practice, the question of responsibility becomes reconfigured. The focus becomes the material enactments of conflict and compromise that appear in enactments of professional responsibility.

The chapter begins with a discussion of the changing nature of professional responsibility, and elaborates a sociomaterial perspective that draws particularly from Latour (2005) and Orlikowski (2007). Turning to examples of professional practice generated through recent studies, the discussion works with a sociomaterial sensibility to explore those mattering elements that are more-than-human. What responsibilities are enacted in these sociomaterial assemblages, and how are accountabilities framed? How do professionals negotiate the ambivalences of these complex becomings to find lines of whatever they might call ‘responsible’ action? What matters most to professionals in these ‘mattered’ enactments of responsibility?

TOWARD A SOCIOMATERIAL CONCEPTION OF PROFESSIONAL RESPONSIBILITY

Solbrekke (2008a: 76) argues for the centrality of professional responsibility in practice defined as ‘the ability to act in a professionally responsible manner in complex, unique and uncertain situations with conflicting values and ethical stance’. She goes on to explain the nature of this action amidst the frequent undecidability of practice: ‘the individual professional, when encountering risk and uncertainty in his or her daily tasks, must employ his or her own capacity for critical reflection and take immediate moral and responsible

decisions while at the same time linking his or her personal specialised knowledge to a collective commitment' (p. 76). Many professionals might agree that responsibility is an individual matter of decision making informed by particular moral commitments and knowledge expertise.

Yet, as Solbrekke also has acknowledged, there is growing research pointing to the pluralism of professionals' obligations and the conflicts in responsibility that individuals must negotiate. Professionals must balance obligations to their employing organization and its rules of practice, to broad social needs served by their profession, to the profession itself and the standards and regulatory codes governing its practices, to individuals for whom the professional adopts a caring responsibility, and to personal allegiances influencing a sense of the 'right thing to do'. This 'web of commitments' often necessitates what May (1996) has called 'legitimate compromises'. Practitioners almost always must navigate a path of action that simultaneously balances concerns for different stakeholders without necessarily meeting the full expectations of any one. For example, Solbrekke (2008b) shows that while practitioners in law and psychology continually must negotiate difficult compromises, they appear overly governed by externally defined regulations.

Professionals' negotiations of these conflicting responsibilities are becoming exacerbated by particular conflicts between the claims of increased efficiency and economy and the best interests of clients, students and patients (Colley et al. 2007; Robinson 2009; Stronach et al. 2002). Stronach and his colleagues report that nurses and teachers appear to manage this particular conflict by simultaneously juggling conflicting discourses of professionalism in their everyday work: an economy of performance, and an ecology of practice. Colley et al., drawing from Cribb (2005), describe this work as ethical labour: practitioners not only are

tasked to difficult work in managing these ethical conflicts, but find their ethical work itself commodified. While professionals are often depicted as continually ‘becoming’, in practice they must often choose to act in ways ‘unbecoming’, such as when they feel compelled by professional responsibilities of care and compassion for an individual patient or student to work around or subvert more general regulations oriented to certain performance outcomes.

More broadly, some have signaled a demand for new forms of professionalism in these conflicts. For instance Noordegraf (2011) argues for an ‘organised professionalism’ that recognises the ways that changing circumstances are requiring organisationally-based capacities for responsibility. He identifies three changes that are requiring a more systemic approach to professionalism and responsibility: (a) professionals are increasingly seeking organized work conditions; (b) they face new ambiguously bounded *cases* that call for well-organized multi-professional acts; and (c) these cases present new critical *risks*, that are better managed through an organised response. Collaborative multi-agency practice is becoming a more typical response to such complex and boundary-blurred cases, but raises new issues of responsibility. Different positionings of professionals invoke different ethical sensibilities as well as focus and scope for responsible practice, argues Cribb (2005). Doctors focus on curing, nurses on caring, or at least that is the myth promoted by some clinicians. But beyond the ways that practitioners position (or accuse) each other, it is clear that different groups are fundamentally enmeshed in their own epistemic communities. Particularly in synchronistic situations such as in multi-professional team work, researchers continue to show that each professional group’s knowledge and sense of what is most important or what is the right thing to do is oriented around a distinct history of practice that is tightly woven to particular instruments and tools, language and commitments. Edwards (2007:2) has shown that what is called for in such situations is ‘relational agency’, which involves distributed expertise and

mutual responsibility, as well as mutual attunement and adjustment to others' worlds of practice: 'a capacity to align one's thoughts and actions with those of others to interpret aspects of one's world and to act on and respond to those interpretations'. Working from activity theory, Edwards stresses that artefacts as well as people and activity are critical in mediating practice, knowing, and responsibility.

All of this speaks to a more systemic, relational and material approach to understanding professionalism and 'professional responsibility'. Yet like professional learning, professional responsibility has long been understood as a personal, and sometimes social, phenomenon. As Solbrekke and Sugrue (2010) show, professional responsibility is mostly treated as a matter of individual ethical decision making, informed by professional knowing of particular values and commitments that can be inculcated through education and ethical codes. A sociomaterial approach offers a different configuration for rethinking professional responsibility, where the material and the social are viewed as mutually implicated in bringing forth the world. As the introduction to this volume argues, professional practice weaves together knowing with action, conversation, affect, and materials in purposeful and regularized orderings of human activity. Material forces— flesh and blood, forms and checklists, diagnostic machines and databases, furniture and passcodes, snowstorms and dead cell zones – are integral in shaping professional practice both as a repertoire of routines as well in particular moments of response and decision. Yet materiality is often dismissed or ignored in analyses of professional responsibility.

The central premise of sociomateriality adopted in this argument is, as Orlikowski (2007: 1435) puts it, 'the constitutive entanglement of the social and material in everyday life'. All things – human and non-human, hybrids and parts, knowledge and systems – are understood

to be *effects* of connections and activity. They are performed into existence in webs of relations. There are no received categories. The point is that material things are performative and not inert; they are matter and they matter. They act together with other types of things and forces to exclude, invite, and regulate particular forms of participation in enactments, some of which we term knowing. The move here is what Jensen (2010:7) characterises as ‘from epistemology and representation to practical ontology and performativity’. The question of producing knowledge and learning shifts from a representational idiom, mapping and understanding a world that is out there, to a view that the world is doing things, full of agency. When we accept such a configuration, processes such as acting, learning and responding are understood to be sociomaterial enactments. A focus on the socio-material therefore helps us to untangle the heterogeneous relationships holding together these larger categories, tracing their durability as well as their weaknesses. From this approach, no anterior distinctions, such as human beings or social structures, are presupposed. Everything is performed into existence: ‘the agents, their dimensions and what they are and do, all depend on the morphology of the relations in which they are involved’ (Callon, 1991).

Particularly for purposes of examining professional responsibility, one key contribution of sociomaterial analysis is to de-couple knowing and action from a strictly human-centered socio-cultural ontology, and to liberate agency and responsibility from its conceptual confines as a human-generated force. Instead, agency is understood to be *enacted* in the emergence and interactions – as well as the exclusionings - occurring in the smallest encounters. Bennett (2010:1) describes this as the ‘force of things’, ‘the agency of assemblages’ and ‘the vitality of materiality’, drawing from Deleuzian discussions of vital materialism of energies coursing through matter. Her argument focuses on why materiality is critical to reformulating a politics and responsibility that moves beyond oppositions, blame and self interest. She shows how

public life is dramatically acted upon by matter, such as food and fat, stem cells, metal and electricity. The North American electricity blackout of 2003 that affected 50 million people, for example, was enacted through a heterogeneous assemblage including electricity, power plants (with overprotective mechanisms and understaffing), transmission wires (with limits on their heat capacity), a regulatory commission and policy act (that privatized electricity and separated transmission of electricity from distribution), energy-trading corporations (profiting from the grid at the expense of maintaining infrastructure), consumers (with growing demand for electricity), and a brush fire in Ohio. The point is not that individual objects have agency, but that force is exercised through these sociomaterial assemblages. Non-human materiality, Bennett argues, is interpenetrated with human intensities in these assemblages in ways that must be treated symmetrically. Human responsibility, then, is the effect of particular distributions and accumulations enacted through such assemblages. This view

multiplies the potentially relevant actors and force attention on their differences and relations. The aspiration is to thereby facilitate more nuanced analyses of how humans and things (broadly construed) together create, stabilize and change worlds. Analyses, in other words, that are sensitive to human and nonhuman activities as *practical ontology*: efforts to concretely shape and interrelate the components that make up the worlds they inhabit.

(Jensen, 2010: 5)

Capacity for action is relational, and distributed among the elements of these entangled assemblages. All things are continually acting with one another, not as separate entities but as overlapping waves that are *intra*-active (rather than *inter*-acting, which implies separate things that come together). Barad (2003: 817) argues that the sociomaterial real becomes performed into existence through specific intra-actions that she calls ‘agential cuts’ in ‘the ongoing open process of mattering’.

Through these agential cuts, matter becomes separated into distinct entities, allowing us to see boundaries and relationships among knower, known and knowledge. Agency is not confined to humans or human-associated desires and energies. Instead, agency emerges through the dynamic openness of each intra-action, which enable iterative changes. Thus for Barad (2003: 823), ‘matter comes to matter through the iterative intra-activity of the world in its becoming’. Following a similar line of analysis, educational philosopher Bai (2001: 26) writes, ‘changes are the result of our interpenetrating the world’, more than of human conscious intentional action to do something.

These notions of ‘intra-active’ assemblages of human and nonhuman, ‘vital materialities’ and human action as ‘interpenetration’ in the living matter and technologically mediated worlds of everyday professional practice hold profound transformative potential for many social sciences and humanities. As Braidotti (2013) argues passionately, they open an expanded, radical relational conception of subjectivity, a transversal and ecological posthumanism. While this conception has profound ethical and political commitments, following Braidotti’s arguments (as well as Barad’s, where an ethical feminist project is central) it provoke serious challenges to classical notions of individual agency, morality and intentionality that are usually central to thinking about professional responsibility. Difficult questions arise, particularly in considering professional responsibility - the tip at which converges public trust, societal anxiety, and regulatory scrutiny. Who and what is responsible in difficult encounters when capacities for action are distributed, when action and subjectivities are emergent? Where are the points of accountability? How can professionals negotiate these ambivalent encounters?

DILEMMAS OF PROFESSIONAL RESPONSIBILITY: THE POLITICS OF MATERIALS AND PRACTICE

To begin to explore these questions, let us turn to some specific examples of dilemmas in professional practice, and try a sociomaterial reading to problematics of responsibility that arise. In this short chapter little more can be done than to offer a brief taste of what a more-than-human perspective might offer when considering professionals' everyday practices. Two small scenarios will be shared, drawn from different studies of professionals at work. The first study focused on interprofessional practice in the situations of emergency mental health care. The second examined issues of co-production (community involvement in generating solutions and developing needed services) in rural policing.

Inter-professional practice, as was described earlier, often involves a collision of different practices, terminology, instruments, and forms of knowledge. Emergency mental health care is one example. An emergency call for events can range from attempted self-harm to psychotic or aggressive episodes related to a mental health disorder. It typically involves paramedics, police, and hospital-based health professionals. As we found in a recent study that interviewed these different personnel, emergency mental health care often presents ambivalent situations across a vast range of diverse conditions (Aberton & Slade 2012, Essington 2011). There are no standardised procedures or specified 'care pathways' for these emergencies, and little training. Yet there are clear duties of responsibility in each of the professions involved, although these do not map easily onto the situations that emerge or mesh together smoothly. For instance, while the police duty of care is to promote security and safety of all persons involved in an incident, for Scottish ambulance practitioners their duty of responsibility is to care for and deliver the patient to a safe place (with minor variations depending on job classification). This concept of 'safety', a core principle for both groups, can be enacted very differently in their own worlds of practice. In one case recounted in our

study, where a man was threatening to jump off a bridge onto a motorway, the police explained that ‘we grabbed him by the shoulder ... [and he] was put in handcuffs for his own safety ... and put in the back of the police vehicle ... until he calmed down’, and ‘it took three of us to kind of hold him down ... just trying to calm him down’. Grabbing, handcuffing, and holding down constitute a particular enactment of safety and response to a distressed man, which cannot be separated from the intermeshed actions of all present.

The apparatus of each group also clearly distinguishes two different material worlds of practice, organised around different purposes and practices: the ambulance outfitted with medical equipment, assessment devices and cots for emergency clinical diagnosis and care, and the police van that may be equipped with emergency shields, handcuffs, and possibly firearms. Ambulance practitioners are not able to restrain a patient, but police have the power to exercise involuntary detention of a mental health patient in an emergency. Meanwhile hospital staff, who typically refer to paramedics’ work as ‘pre-hospital care’, tend to view the hospital activity as the site where the most reliable and robust treatment occurs. Everything else, from this perspective, ought inevitably to flow to the hospital. To ‘join up’ the different worlds of practice involved in a single emergency call, practitioners must rely on professional judgment, improvisation, close attunement to the others involved and their traditions and limits of practice, and a personal sense of the ‘responsible’ thing to do.

Another example from this study (Aberton & Slade 2012) illustrates the different material worlds at play, as well as the ways that transitions among them must be achieved. A patient, reportedly in a schizophrenic condition, was balancing on a window ledge two floors up. Paramedic Kaitlyn was called to the scene:

[She] hadn't been taking medication and stuff for a matter of weeks, and was basically balancing on a window ledge, and it was her heels that were kinda more or less holding her on. But she was hallucinating at the same time, and she could hear people in the garden telling her to come, come to her, come, come to them, to basically jump. And obviously there was me and a policewoman. ... If you engaged enough with her then she would keep speaking to you, but I think as soon as somebody was not speaking or she wasn't, didn't want to speak to you anymore then it was obviously the hallucination or the voices that she was hearing. And there was a few occasions that I thought she was gonna go but we managed to get her back in,[with a cigarette because we learned from the other people in the house that she was a smoker] and the policewoman was saying to her that she could go in the ambulance and that. But due to the circumstances of the actual job, the ambulance has a side door and the two back doors, and obviously ... in the back of the ambulance, you've got different things.... And the way that she, that she was I, I didn't feel it was safe for the patient to be in the back of an ambulance' (Kaitlyn pp. 16-17).

An assemblage of heterogeneous elements interact in the emergency. The patient's heels, voices, hallucinations, window ledge, the mental state of the patient, broken glass door, absence of usual medication, paramedics, a policewoman, a cigarette, trust, ambulance doors and equipment in the back and police van. The job of the paramedics and police is to relocate the patient to 'a place of safety'. On closer examination of the data the movement between different related entities can be identified for the sake of description as four enactments which merge and emerge. First, 'If you engaged enough with the patient she would keep speaking to you'. The voice of the paramedic effected temporary disengagement from the seductive voices in the garden. The patient's

attention could be diverted from the seductive voices below which were inviting her to jump. Second, the urge to smoke and the enticement of a cigarette precipitated this transition from the window ledge to ‘safety’ inside the house. Third was the transition to hospital in a police car, which was deemed ‘safer’ than the ambulance with its doors and equipment, but risked a new transition in patient behavior after the promise of an ambulance. (adapted from Aberton & Slade 2012, 3-4)

This scenario illustrates how enactments of professional responsibilities for care and safety are the effect of relations between assemblages of heterogeneous elements. Responsibility is distributed – not just across different professionals each making or deferring decisions, but also across and through the different materials engaged the various events. Elements and humans are not distinct and separate, but act on each other, respond to and overlap with each other. Responsibility lies more in individuals’ attunement to these different relations, and their intra-engagement with the networks of action that produce difficult encounters, than with any one professional’s choice of action.

Co-production is another area that illustrates the difficulty of drawing tight lines of professional responsibility in providing public services. Fast becoming a dominant policy discourse in the UK, Australia and North America, ‘co-production’ can be defined as professional services and products that are co-developed with clients or service users. In public sector services such as health, policing and social care, co-production increasingly calls for active community participation whereby service users are centrally involved in planning and designing as well as delivering services. Boyle and Harris (2009:12) explain that it ‘goes well beyond the idea of ‘citizen engagement’ or ‘service user involvement’ to foster the principle of ‘equal partnership’. But critical questions about co-production touch issues of

responsibility. To what extent, in various cases, are users and families even interested in such ‘partnerships’? How are they trained and compensated for taking on these responsibilities? And where does accountability fall when things go wrong?

These questions are related to processes of negotiating decision-making, authority and expectations in co-produced public service. In a recent study of co-production in policing, we examined these everyday negotiations (Fenwick 2012). The context was a large rural area policed by one constabulary, where practice often had to be conducted from single-officer stations responsible for covering dozens of square miles characterized by significant geographical challenges (mountains, lengthy coastline, and many islands). Experienced officers learned a variety of work-arounds to stretch resources and to ‘*play the long game*’ in everyday moments, as one sergeant put it. Rather than leaping to action by following prescribed protocol strictly, they often negotiate to sustain a longer trusting relationship. This negotiation has practical material ends as well as social ones, for much investigative police work in the community relies on information that one’s neighbours are willing to share freely.

‘It’s a minor road traffic infringement and you can use your discretion and say “OK Mike, next time put your seatbelt on or get that light fixed” rather than booking him or giving him a ticket, because tomorrow that person could be a key-witness in something more serious and if you’ve got their backs up they’re no[t] going to come you with the information.’ (constable, town in northern Scotland)

The importance of materiality continually emerges in these narratives of negotiations. In one incident, a constable was called to a hit-and-run scene, where a lorry allegedly had backed into a shopkeeper’s wall. Recognizing some metallic blue paint shavings left on this wall, the

officer scraped them into an envelope and drove round to see the fellow he believed they belonged to. After some conversation seeking the man's assistance, the paint shavings were produced, inducing his sudden recollection of 'oh, *that* wall!', and his promise to pop round and fix the wall that afternoon. According to the officer, even the shop owner was satisfied because his wall got fixed so quickly. The entire incident was contained as an issue of some material damage needing repair, inflicted by a truck. It was neither personalized as an escalated case of injury and defense, nor labeled, disciplined and recorded as a crime. The community members involved worked with the police officer to co-produce this construction of the incident, stepping away from the conflict script of defensive perpetrator/outraged victim and taking up positions of cooperation.

The situation becomes complicated where lives are at risk. One man, now an inspector and instructor, told stories of his first postings in communities on the long undefended coastline of northwest Scotland. Here as a single officer, he and colleagues typically improvised a range of material and social resources to manage issues ranging from attempted drug smuggling to air-sea emergency rescues. In one story, he tells of being called to a scene of alleged assault. Arriving to confront a very large and physically aggressive intoxicated man, the lone officer engaged a nearby fisherman to help wrestle him to the ground, using the fisherman's ropes to secure him. Naturally, the interviewee noted, this wasn't recognized standard procedure but safety for all sometimes requires improvisation. Another described being a single officer called to a major motorway vehicular crash. To secure the scene for investigation, obtain emergency help for the injured, and ensure the safety of oncoming traffic, he needed to mobilize any tools to hand and anyone who stopped to help – while managing his own emotions and those of all involved.

Overall, these instances indicate a little of the intensive dialogue, negotiation and consultation that Needham (2007) emphasizes to be critical elements in co-production. They show, however, that responsibility is a complex activity that transcends conversation and social relations – it is also embodied, and invokes materiality in ways that skilled practitioners can leverage. Many opportune moments for negotiating responsibility were not planned, but seemed to emerge *within* encounters involving a range of sociomaterial entanglements. Resourceful officers found ways to work effectively within and through these assemblages to interrupt, reframe, and avert problem situations in moments that may be best characterized as knowing-in-practice. ‘Responsible’ action emerges in the sociomaterial mix, in being attuned to possibilities available in this mix at any moment, and in being sufficiently resourceful to improvise with these possibilities.

CONCLUSION

In situations calling for responsible decision-making, professionals must balance competing versions of the ‘good’ in highly uncertain encounters. They are called to act in what Caputo (1993) describes as ‘disasters’ where response ‘can occur only as a leap into an abyss, a plunge into the density and impenetrability of the event, the novelty and the surprise of singularity’ (1993:92, 97). Professionals’ action in this leap rarely reflects a considered rational application of moral principles to a problem. Instead, decisions emerge through enactments in which a range of material as well as sociocultural phenomena and knowledge resources are entangled with practitioners.

Following Barad’s (2003) conception of sociomaterial intra-activity, the issue in considering professional responsibility may be approached as understanding how professionals delineate

their intra-actions within these sociomaterial assemblages. They do not act morally on an already existing real, but come into existence themselves within activity that materialises the moral. That is, professionals select actions – they perform agential cuts that help shape and redirect the real - but this process can only be enacted through particular material possibilities, forces and other capacities producing assemblages of practice. In the examples here of police and paramedic practices, we can see how professionals learn how to work with and through these entangled vitalities where human and material elements are almost inseparable in their continual overlapping and intra-acting, constituting professionals' world of practices as well as the immediate encounter demanding action. They leverage the forces that they can, while holding open the tensions of competing goods. This sociomaterial juggling suggests a conception of professional responsibility that decentres the individual and materialises the moral, but without flattening or erasing the importance of human choice and ethical commitments in professional action.

Two questions were posed at the beginning of this chapter: Who and what is responsible in difficult encounters when capacities for action are distributed, when action and subjectivities are emergent? Where are the points of accountability? This sociomaterial view begins by making visible the capillaries of action, the networks of Latour's conception (2005), through which the multifarious associations comprising professional practice and its various responsibilities are produced. Paraphrasing Latour (2005: 44) we can state that any practice, encounter or decision is a knot or conglomerate of many material and human forces. These associations are 'knotted' and sustained through co-ordinations of human and non-human mediators such as plans and contracts, assessment sheets and report forms, handcuffs and paint scrapings. Such an analysis focuses attention not on *who* is responsible, but *how* responsibility is enacted – and often enacted differently – at different points among these

associations. Further, it examines how particular accounts of responsibility are produced. How, for instance, are particular locations for professional responsibility in any given encounter achieved and stabilized? How do human beings and their competency become the centre of an accountable order, and how is this reproduced and disciplined? How does a particular person become the lightning rod for accountability, as in scapegoating of professional individuals, in complex cases that clearly are composed of myriad contributing factors? A sociomaterial analysis not only can help to unpick the assembling processes and the continuing work that produces practice and responsibility in particular ways, it can also make visible the ways in which we account for (ir)responsibility.

The third question raised at the chapter's beginning was, How can professionals negotiate these ambivalent encounters? The argument suggests that the way forward lies in an extraordinary attunement to all aspects of a case, not just the human or social elements that are most readily identifiable. There is a mindfulness required here, an ethical consideration extended to things. This is about an appreciation not only of the multiple human stakeholders in any case, but also of the complex associations of materials and people, equipment and emotions, technologies and desires.

This is a view that moves far beyond a focus on individual professionals' ethical decision making to an appreciation of how these decisions are entangled in networks of things that each have their own trajectory. Rather than attempting to dismiss or ignore these entanglements, or to control them through protocols of practice and ethical codes, a sociomaterial view recognises the vital intensities produced within this emergence, and opens new ways to think about professional practice and responsibility. Because in this view, as Barad (2003) argues, (unknown) radical future possibilities are available at every encounter.

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