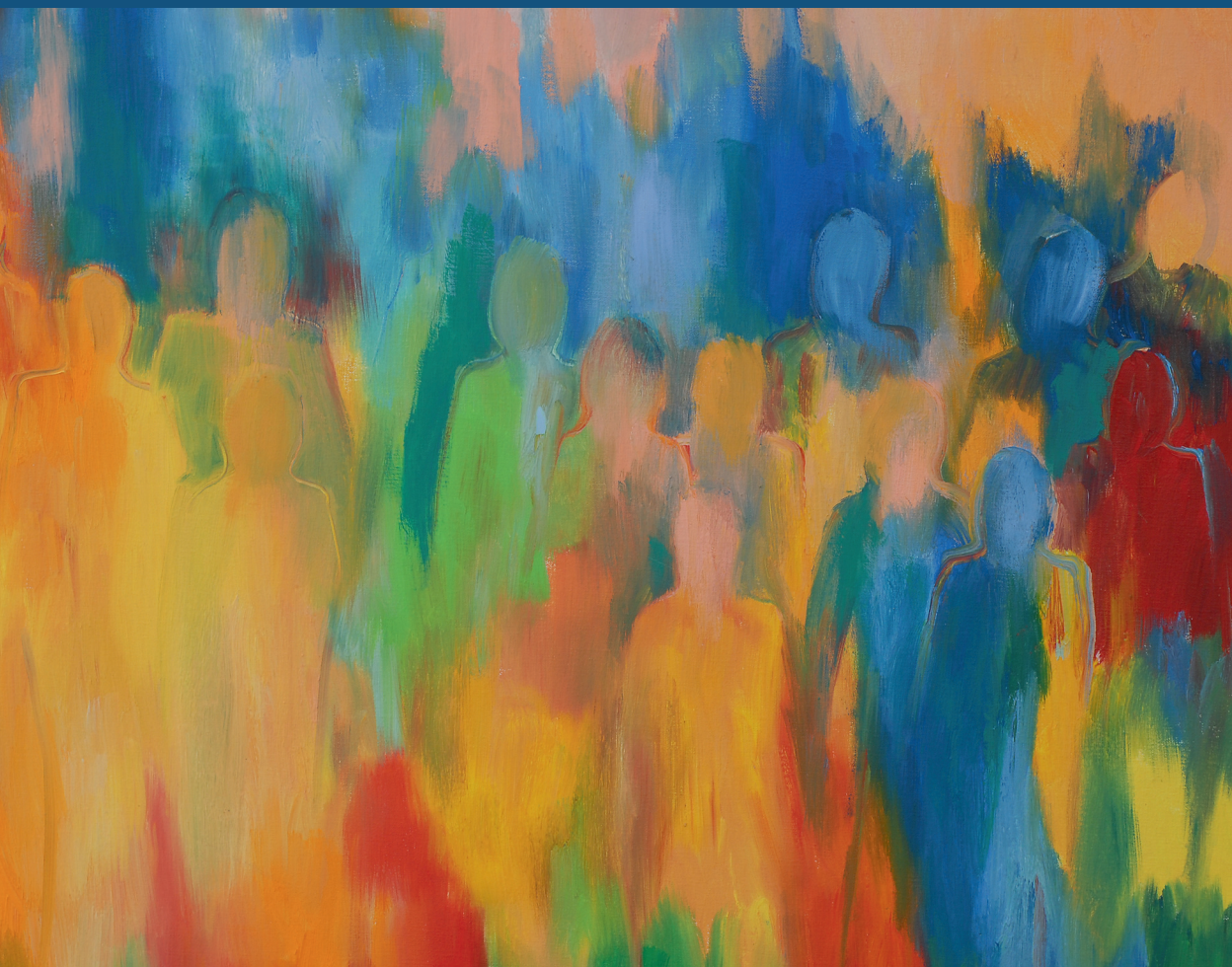


Go With the Flow

Post-humanist Accounts of how Matter
Matters in Organizational Change

Lotta Hultin



Go With the Flow

This thesis contributes to our understanding of “how matter matters” in organizational change. Building on research grounded in an ontology of becoming and emphasizing and experimenting with various vocabularies grounded in this ontology, it challenges and moves beyond the normative enactment of separation between human and material, subject and object, structure and agency. In five articles, based on longitudinal case studies at the Swedish Migration Board and ‘Nordic University Hospital’, the thesis decenters the human as the primary agent of change and offers insights into how matter, including information technologies and physical work environments, are entangled in, and thus constitutive of, a performative flow of material-discursive practices providing the conditions of possibilities to be, act, respond and change. In doing this, it uncovers how researchers working within an ontology of becoming can be responsive to their own entanglement in material-discursive practices and challenge and extend current conceptions of what organizational theories can do in the creative co-construction of organizational realities. Specifically, the articles present novel readings of organizational sense-making, identity work, management ideas and institutional logics.



Lotta Hultin

is a researcher at the Department of Management and Organization at the Stockholm School of Economics.

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Go With the Flow:

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Matters in Organizational Change

Lotta Hultin





Dissertation for the Degree of Doctor of Philosophy, Ph.D.,
in Business Administration
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To Hanna
But we start with Alfons

Foreword

This volume is the result of a research project carried out at the Department of Management and Organization at the Stockholm School of Economics (SSE). It is submitted as a doctoral thesis at SSE.

In keeping with the policies of SSE, the author has been free to conduct and present her research in the manner of her choosing as an expression of her own ideas. SSE is grateful for the financial support provided by the Torsten Söderberg Foundation and the Jan Wallander and Tom Hedelius Foundation, which has made it possible to carry out the research project.

Göran Lindqvist

Director of Research
Stockholm School of Economics

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Professor and Head of the
Department of Management
and Organization

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Five years ago, I sat opposite Magnus Mähring and Pär Åhlström at Jensen's Boefhouse. I was very nervous as was trying to sound knowledgeable and excited about the research topic, "Lean Practices and Information Technology: Exploring the Contradiction." I had no experience whatsoever with any related topic, but I very much wanted to do a PhD, and these professors were considering giving me a chance. "Hmm, the tension between the Lean pull principle and large-scale ERP systems supporting a push chain . . . interesting! Yes, I'm used to working very independently . . . and I can start whenever you want. . . . I can dance too."

I would be interested to hear their thoughts during that lunch; but whatever their reasons for believing in me, I will always be grateful to them for giving me this opportunity. Working toward a PhD can be challenging, confusing, stressful, lonely, and frustrating, but these five years have been a truly inspiring and rewarding experience.

I began this journey without knowing where I was going. One of many things I have learned along the way is that such knowledge is not so important; in fact, it's boring. In the pursuit of knowledge, what's the point of going somewhere you already know? I am happy that, during this journey, my thesis has worked as much on me as I have worked on my thesis. I am happy that, today, I'm not necessarily more certain of where I'm going, but that I have developed perspectives that allow me to see, and to appreciate what I see, along the way.

This is without doubt a result of the people with whom I have had the privilege to work. Without my supervisor Magnus Mähring, I would never have gotten to where I am today. Your open mind, your warm heart, your strategic, pragmatic eye, your enthusiasm and helpfulness have encouraged and pushed me to raise the bar and challenge myself constantly. You have

been my invaluable sounding board, believing in me on days when my own self-confidence reached rock bottom. I am also grateful to my committee members, Lucas Introna and Ulrike Schultze. Lucas, I liked you from the first time I came across your work. I'm so glad that I followed my instincts and took that train to Lancaster while on vacation in London. You have been my visionary and creative inspiration whose feedback is always both thought provoking and poetic. Ulrike, thank you for being the eagle-eyed pragmatist, asking the questions that you had hoped no one would ask. Our collaboration has been incredibly fun and instructive.

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In general, I am impressed with the helpful and humble spirit within the academic community that I have so far encountered. I am grateful to the constructive reviewers and editors who have challenged and encouraged me in various directions. I offer especially warm thanks in this respect to Viktor Arvidsson who has, both as a reviewer and as mock defense opponent, greatly facilitated my work and to Kai Riemer for describing my first conference presentation as "actually quite brilliant," which meant a lot to a nervous rookie.

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Stockholm, April 24, 2017

Lotta Hultin

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Chapter 1

Introduction

In 2009, the Swedish Migration Board began to adopt the flow-oriented principles and practices of the Lean management philosophy in order to improve quality and increase efficiency in the processing of asylum applications. The new work practices implied changes in the organizational structure as well as in officers' roles and responsibilities. In 2015, as the conflicts in Syria escalated, a total of 162,877 people applied for asylum in Sweden, a two-fold increase over previous year. To cope with the increased pressure, major organizational changes were necessary, such as large-scale recruitment, increased training, and streamlining of internal processes. In 2018, the Migration Board will relocate all of its operations to new premises, a move that implies modifications of existing roles and work practices and the development of new ones.

Around the same time that the Migration Board started to implement Lean, Nordic University Hospital also began a major transformation project aimed at increasing flow efficiency and quality throughout its health care processes. Team-based work practices, standardization of routines, and a decentered system involving problem-solving and continuous learning are examples of some of the new work practices. Since 2010, the hospital has been in the process of transferring its operations to newly built premises, a project that has brought sweeping changes in organizational structure, technology, and operational work flows.

The operational realities of the Swedish Migration Board and the Nordic University Hospital are obviously and essentially different, but they share the basic condition of operating in a world in which change is constant. Considering that the Swedish Migration Board and Nordic University Hospital are

not exceptional, but that constant change is the condition under which most organizations work, it is not surprising that issues relating to change and how to manage it have come to dominate management and organizational thinking over the past two decades.

While traditional approaches to organizational change have been dominated by assumptions that privilege stability, routine, and order (Orlikowski, 1996; Tsoukas & Chia, 2002), the view of organizations as bounded, rational, and stable entities has increasingly been challenged by researchers producing accounts that emphasize multiplicity, fluidity, diversity, and mobility (Feldman, 2000; Hernes & Maitlis, 2010; Orlikowski, 2000; Shotter, 2006; Tsoukas & Chia, 2002). In these accounts, organizational change is not a process that can be separated from the everyday practices of organizing and summarized in a stage model or that can necessarily be fully controlled and managed by individuals, but one that is distributed and complex, subject to flux and improvisation, and that involves multiple and heterogeneous actors. In other words, organizational change is a process that is not fully in the hands, or intentional minds, of humans; rather, it emerges within, and is contingent upon, the temporal and performative flow of practices. This thesis takes as its starting point this growing stream of research, in particular attempts to move beyond human-centric accounts of organizational change and to emphasize materiality as entangled in and thus constitutive of organizational realities (Cecez-Kecmanovic, Galliers, Henfridsson, Newell, & Vidgen., 2014; Introna, 2011; Nyberg, 2009; Orlikowski, 2007; Orlikowski & Scott, 2008, 2014; Scott & Orlikowski, 2014).

Grounded in a long tradition, the assumption that “the human” and “the social” are separate from “the material” or “the technical” has permeated, and still permeates, the majority of organizational research (Lorino, Tricard & Clot, 2011; Manning, 2015; Vannini, 2015). While the significance of technologies has indeed been recognized in organization studies (Barley, 1986, 1990; Boudreau & Robey, 2005; DeSanctis & Poole, 1994; Orlikowski & Gash, 1994; Walsham, 1993), attention has tended to focus on the effects of technologies, or the dynamic interaction between technologies and specific meanings, actions, cultures or structures at specific occasions, for example during implementation of a new IT system. The deeply constitutive entan-

gument of humans and organizations with materiality has received little attention (Carlile et al., 2013; Orlikowski & Scott, 2008). Another way to put this is to say that the majority of research has operated with a *being ontology* in which the world is constituted by, or comprised of, ontologically distinct entities (social and technical) that interact or connect in order to produce organizational phenomena. While this stream of literature has certainly made a significant contribution in terms of generating insights into organization theory and practice, it has also come to enact a dualistic view of the world as a given. The result is a perspective from which object is separated from subject, mind from matter, structure from agency, human intention from embodied experience, and present from past and future (Barad, 2007; Introna, 2013; Law & Urry, 2004).

In the articles that make up this thesis, the argument is not that this dualistic view is, in itself, problematic when it comes to investigating the role of materiality in organizing. However, since most studies in the field of organizations and information systems research have taken this ontological view as given (Introna, 2013; Orlikowski, 2010; Orlikowski & Scott, 2008), I suggest that the norms (vocabulary, methodological tools, etc.) that have become attached to it have the potential to be problematic because they reproduce certain understandings of organizational realities, again, as given.

In assuming that research practices and accounts do not simply represent reality, but performatively enact it, in other words, in assuming that the production of knowledge is a creative process of co-construction (Introna, 2013; Law & Urry, 2004; Shotter, 2006), I argue that it is the responsibility of researchers to question dominant ontological and epistemological positions and to strive to increase the diversity of their approaches (Helin, 2014; Introna, 2013; Koro-Ljungberg & Mazzei, 2012; Law, 2004; Law & Urry, 2004; Manning, 2015; Shotter, 2014). I argue that researchers need to be aware of that which their assumptions and practices include and exclude, that which they foreground and background, and how and for whom this matters (Barad, 2007; Orlikowski & Scott, 2014). For example, if we assume that organizations are comprised of separate, more or less self-contained beings, then the study of organizations will focus on these beings to which agency can be ascribed and the actions and interactions among which can be studied in terms of change. Researchers can then point to these beings and say, “this

is your fault or your responsibility; you are held accountable,” thereby enacting a reality in which agentic movement is located within human beings and human agency and intentionality are the primary authors of meaning and drivers of change.

Building on the work of scholars seeking to challenge and transcend conventional distinctions between the social and the material (Barad, 2003, 2007; Ingold 2007b; Latour, 1988, 2005; Orlikowski, 2007; Scott & Orlikowski, 2014), I argue in this thesis that traditional dualistic assumptions, and the consequential tendency to center human beings, constrain an understanding of organizational change as always bound up with materiality and, moreover, make us lose sight of the seemingly mundane, subtle performative processes through which certain practices, subject and object positions become enacted as legitimate and, ultimately, taken for granted. In other words, as (primarily human) actors and the spatial interactions between them become foregrounded, the temporal, performative flow of everyday work practices—that is, the temporal conditions under which these actors come to be and to act in the way in which they do—become backgrounded. I suggest that this is unfortunate because it is through an understanding of the material-discursive conditions of possibilities that questions regarding how and why certain practices, subjects and objects become enacted as legitimate and eventually taken for granted can be posed and refined. It is by decentering the human that the conditions of her becoming can be explored.

My work draws on that of other researchers who recognize the need to increase the diversity in our research approaches (Helin, 2014; Introna, 2013; Koro-Ljungberg & Mazzei, 2012; Law, 2004; Law & Urry, 2004; Manning, 2015; Shotter, 2014) and to gain inspiration from philosophical traditions that attempt to transcend the subject–object dualism. In particular, the articles in this thesis are grounded in the arguments of process-philosophers as Whitehead (1929, 1978) and Bergson (2002, 2007) and those of post-humanist scholars as Deleuze and Guattari (1987), Foucault (1980), Butler (1990), Barad (2003; 2007) Latour (1988, 2005), Law (1999), Mol (2003), and Suchman, 2007). I also draw on the work of social anthropologist Tim Ingold (2007b, 2011), who shares with these scholars a desire to move beyond the traditional humanist view of individual actors living in a world separate of things and to assume an ontological position in which agency is not attributed

to actors but instead emerges within the temporal and performative flow of practice. From this perspective, there is no fixed point outside the temporal flow against which it and its enactments—such as culture, identity, markets, technology, institutions, and financial resources—may be understood. Rather, the flow is what enables these phenomena by constituting the temporal conditions for their enactment (Butler, 1993). As Ingold (2011) puts it, this agentic flow of life “is not an object that I interact with, but the ground upon which the possibility of interaction is based. The [flow], in short, is the very condition of my agency. But it is not, in itself, an agent” (p. 93).

Central to my endeavor to move beyond a dualistic view of the human-material-relationship is another recent stream of research, one that assumes a so-called sociomaterial approach (Orlikowski, 2007, 2010; Orlikowski & Scott, 2008, 2014; Scott & Orlikowski, 2014). Researchers who follow this approach move away from a focus on how technologies influence humans, or how humans interpret technologies, and examine instead how materiality is intrinsic to everyday activities and relations, how practices are always sociomaterial, and how this sociomateriality is constitutive in shaping the contours and possibilities of everyday organizing (Orlikowski, 2007, 2008). Drawing on Barad (2003, 2007), this research “calls into question the givenness of the differential categories of ‘human’ and ‘nonhuman,’ examining the practices through which these differential boundaries are stabilized and destabilized” (2007, p. 66). This means that, in a sociomaterial account of performativity, primary attention is paid, not to what actors do, think, or say, but rather to what provides them with their actions and intentionality—that is, what are already assumed to be appropriate and legitimate ways of acting—by the circulating flow of agency through material-discursive practices (Introna, 2013).

The articles that make up this thesis are informed by, and contribute to four different organizational theories, namely institutional logics, sensemaking, translation of management ideas, and identity work. A common thread running through them is a grounding in ontological and epistemological sensibilities that take seriously the sociomateriality of organizing. This means that these articles share the following overarching research aims:

- to produce accounts of organizational change that move beyond an understanding of agency as being located within separate human and material actors and toward an understanding that foregrounds the temporal and performative flow of agency;
- to deconstruct organizational categories, such as efficiency, productivity, quality, and service, and to examine the material-discursive practices that regulate, make intelligible, and make normative these categories; and
- to challenge dualistic assumptions of organizational realities and thereby contribute to the development of onto-epistemological practices that allow for greater sensitivity to how organizational realities and the experience of them are sociomaterially configured and for researchers to act (or rather intra-act) more creatively and responsibly.

By building on the work of scholars who assume a relational or a process ontology and by emphasizing and experimenting with their various vocabularies (Althusser, 2006; Barad 2007; Bergson, 2002; Butler, 1993, 1997; Foucault 1980; Ingold, 2007, 2015; Latour, 1999, 2013), the articles in this thesis contribute to organizational theory by decentering the human as the agent primarily responsible for and capable of change and by showing how the material-discursive conditions of possibilities performatively enacting certain practices, subjects and objects as legitimate and eventually taken for granted, can be scrutinized and understood. Moreover, I show how assuming an ontology of becoming allows researchers to be responsive to their own entanglement in material-discursive practices. It allows us to attend to and challenge performative normative enactments of theories and epistemological practices and to extend current conceptions of what the four theories outlined above can do in the creative co-construction of organizational realities. Ultimately, it allows us to develop our own conditions of possibilities to be, act, and create knowledge as researchers in more diverse and novel ways.

Thesis outline and structure

The remainder of this thesis is organized as follows. In the following section, I provide an overview of the ways in which the field of organization studies has conceptualized and accounted for the human-material relationship over the past decades. Particular attention is paid to the fact that most organization studies are grounded in an ontological assumption of the social and the material as distinct and separate spheres of organizational realities.

I argue that this assumption of dualism constrains an understanding of organizational phenomena as always bound up with materiality and obscures the temporal performative processes through which subject and object become conditioned to act and interact in specific ways. I go on to argue that this tendency should not be ascribed the intentions of the researchers but rather to the performativity of the conceptual vocabulary that they use. I then discuss the ontological underpinnings of the articles of this thesis through an overview of the work of the process-oriented and post-humanist scholars whose work has influenced this thesis. In particular, I outline the arguments of researchers who are attempting to move beyond dualistic accounts of the human-material relationship by conceptualizing discourse and materiality as ontologically inseparable (Barad, 2003, 2007; Ingold 2007b; 2015; Latour, 1988, 2005; Orlikowski, 2007; Orlikowski & Scott, 2014).

In the next section, I present my two field sites, 'Nordic University Hospital' (a pseudonym) and the Swedish Migration Board. I then offer examples of epistemic practices grounded in an ontology of becoming that have inspired me and provided guidance in the work with the articles, along with a reflective account of how I turned my data into articles. Then follows a brief summary of each of the five research papers to which the present chapter serves as an introduction. In the final section, I look beyond the individual contributions of the papers to elaborate on how the thesis as a whole contributes to organizational theory. I finally propose some avenues for future research.

Chapter 2

Following the material turn

The separation of subject and object: studying the socio-material with a being ontology

The notion that material objects should be included in theoretical accounts of organizational phenomena is not new. Already in the 1950s, industrial sociologists were discussing “socio-technical systems” and arguing that organizations, to be effective, needed to optimize both their social and the technical aspects jointly (Cherns, 1976; Leonardi & Barley, 2010; Mumford, 2006; Pasmore, 1988; Rice, 1953; Trist & Bamforth, 1951). This research represented a significant milestone in recognizing the interrelationships between these two spheres, raising questions regarding such still-relevant issues as the effect of IT on organizational performance, the various roles that IT plays at different levels of an organization, the capacity of IT to moderate the relationship between strategy and performance, and how IT facilitates competitive advantage (e.g., Aral & Weill, 2007; Davis, 1989; Brynjolfsson & Hitt, 1996; Hinds & Kiesler, 1995; Malone, Yates, & Benjamin, 1987; Pfeffer & Leblebici, 1977; Rice & Aydin, 1991; Trevino, Webster, & Stein, 2000; Tushman & Anderson, 1986). There was a pronounced tendency in this work to treat technology as a specific and self-contained entity that interacts with various “social” aspects of organizations. Approaching various aspects of technology (devices and techniques, cost of machinery, etc.) as independent variables, many studies have tried to account for the impact or moderating effect of technology on organizational outcomes (e.g., efficiency, innovation,

learning) at different levels of analysis (individual, group, enterprise, and inter-organizational) (Orlikowski, 2008). Thus, research in the tradition of the sociotechnical school tends to view the social and the technical as separate and distinct actors with inherent and relatively stable characteristics that “impact” or “affect” each other through unidirectional causal relationships.

Although the view of the social and technical as specific and relatively distinct entities is prevalent in most humanist inquiries, it is increasingly being challenged by researchers willing to confront the controversies and complexities of technological change and to try to understand the formation and transformation of organizations in a dynamic and ephemeral world (Barley, 1986, 1990; Boudreau & Robey, 2005; DeSanctis & Poole, 1994; Orlikowski & Gash, 1994; Orlikowski, 2000; Walsham, 1993; Prasad, 1993). By highlighting how societies, organizations, and the subjects living and working in them, are not simply determined by technology but actively engage in its construction “by changing the shape of material things,” (Winner, 1989, pp. 14-15), this work emphasizes how subjects and objects are both actively involved in the daily creation and reproduction of the world that they inhabit. Moreover, as their use and interpretation will always vary across different contexts and social communities, technologies cannot be characterized in relation to one essential property, nor can they be said to determine specific social or organizational effects (Barley, 1988; Pinch & Bijker, 1984). Rather, they must be understood as situated practices involving the appropriation of the artefacts as well as the subjects using them.

The vast majority of work on technology in organization studies assumes a situated interactional approach to account for how a technology interacts with specific routines, meanings, structures, cultures and institutional environments in and around organizations (Introna, 2013; Leonardi & Barley, 2010; Orlikowski & Scott, 2008). This stream of literature posits neither independent nor dependent variables but rather focuses on the dynamic interactions between technology and people (or organizations) over time (Orlikowski & Scott, 2008). Interactions are not viewed as causal relationships between entities but are understood to be embedded in, emergent with, and mutually dependent on outcomes.

The issues explored in this work include how the design and use of technology affects the nature of work (e.g., Boudreau & Robey, 2005; Mazmanian, Orlikowski & Yates, 2013; Orlikowski, 2000; Vaast & Walsham, 2005; Zuboff, 1988), how the use of technology restructures organizational relations (e.g., Bailey et al., 2012; Barley, 1986, 1990; DeSanctis & Poole, 1994; Walsham, 1993), and how technology becomes interpreted through social meanings and interpretive frames (Orlikowski & Gash, 1994; Joerges & Czamiawska, 1998; Prasad, 1993), which then in turn condition various organizational interactions. Other scholars (e.g., Hutchby, 2001; Norman, 1998; Zammuto, Griffith, Majchrzak, Dougherty, & Faraj, 2007) draw on ecological psychology (Gibson, 1979; Hutchby, 2001) to advocate the analytic lens of “affordances,” which has proved useful in studies of “how the materiality of an object favors, shapes, or invites, and at the same time constrains, a set of specific uses” (Zammuto et al., 2007, p. 752). More recent work has drawn on institutional theory to argue that technology can contribute to the (re)structuring of organizations and institutions by becoming inscribed with, and work as a carrier of, rules of rationality (Avgerou, 2002; Baptista, 2009; Colyvas & Maroulis, 2015; Labatut, Aggeri & Gerard, 2012; Mangan & Kelly, 2009; Nielsen et al., 2014; Raviola & Norbäck, 2013; Silva & Backhouse, 1997).

The outcome of these situated, interactional dynamics could be new or different structures (Barley, 1986), work practices (Zuboff, 1988), skills and knowledge (Boudreau & Robey, 2005), or organizational boundaries (Carlile, 2002). Over time, these interactions become increasingly entangled in the effort to achieve some form of more or less stable and negotiated socio-technical order (Orlikowski, 2000; Tyre & Orlikowski, 1994).

The studies just discussed have indeed made a significant contribution in terms of generating insights for management and organization theory and practice. However, and importantly, they are based on a mostly implicit ontological commitment to the notion that the social and the technical are ontologically distinct and separate phenomena, entities, or objects. In short, this work assumes a being ontology in which the world is constituted by, or comprised of, ontologically distinct entities (social and technical) that interact or connect in order to produce organizational phenomena.

As I argued in the introduction, this ontological starting point is not in itself problematic for researching the role of materiality in organizing. Rather, again, I argue that it is the norms (vocabulary, methodological tools etc.) that become attached to this position that may be problematic because they reproduce certain understandings of the world as given (see further below and in Paper 5). First, the focus on technology as causing or occasioning some organizational effect or change reproduces an understanding of it as something relevant to organizational theorizing only at certain times and during special circumstances, for example during implementation of a new IT system. While this understanding is certainly valuable, it also obscures ways of seeing how materiality is always an integral part of organizing at all times and in all places and circumstances (Orlikowski, 2008).

Moreover, in positioning technology and “the social” as separate and distinct entities that interact or interrelate, researchers simultaneously position the nature of this relationship, whether it is understood as a unidirectional causal influence or as a mutual interaction, as the relevant focus of study (Orlikowski, 2008). These relations can be seen as a weak form of relationality (Slife, 2004) because the actors or entities involved only affect each other’s nonessential properties; that is, they do not change what they actually are, but rather “act on” each other from the outside (Cecez-Kecmanovic et al., 2014). Although such a weak form of relationality ascribes to both people and materiality agency in processes of organizing, it nevertheless upholds a separation of human and material agency. The assumption that humans exist as separate beings in the first place remains unquestioned. As this assumption is inscribed in the analytical gaze of the researcher, it produces practices of data collection and analysis that enact and reproduce a split between “the social” and “the material”, subject and object (Introna, 2013; Law & Urry, 2004; Orlikowski & Scott, 2008; Shotter, 2014). Because much work is conducted from an interpretivist standpoint, technology is often understood in terms of the various meanings assigned to it and the various ways in which people engage with it (Cunliffe, 2011; Leonardi & Barley, 2010; Lorino et al., 2011). While this perspective grounds the use of technology in particular historically contingent socio-cultural contexts, it tends to minimize its actual role. Consequently, adopting this view carries the risk of enacting humans as

actors ultimately deciding how they will respond to materiality and of reserving for humans the privilege of being the prime authors of meaning and of their own subjectivity (Hultin & Mähring, 2016; Introna, 2011; 2013; Latour, 2003; Mol, 1999; Orlikowski & Scott, 2015).

In sum, by assuming an ontology of being, that means, to recognize discrete human and material entities as starting point for analysis, we lose the possibility of seeing how matter matters always and everywhere, entangled in, and thus constitutive of, organizational practices and subjects (Cecez-Kecmanovic, 2016; Gergen, 2010; Orlikowski & Scott, 2008; Introna, 2013; Shotter, 2006). Differently put, we lose sight of the performative socio-material flow of everyday work practices—that is, the conditions for actors to be and to act in the way they do (Latour, 2005). Once again, assuming the social and the material to be ontologically separate is not necessarily problematic. All our assumptions, theoretical concepts, and vocabularies include some things and exclude others and enact certain relations (in this case, spatial relations) as more real than others (for example, temporal relations). However, I argue that we can gain insight and creativity and develop our ability to act responsibly by developing our awareness of how this dualistic enactment of reality conditions the possibilities to become, not just within the operational practices of our case organizations, but within our own research practices: how this assumption enacts ourselves as researchers—and the theories we use—in particular ways (Barad, 2007; Introna, 2013; Law & Urry, 2004). If beings exist, these beings (researchers, theories, and methods) will be taken as the starting point for research inquiries. This is certainly what I learnt during my PhD courses. The researcher formulates research questions, chooses techniques to collect and analyze data, and writes up her findings in an article. Although we might assume a constructivist view of the world and critically scrutinize the relations (for example, of power asymmetries) in this world, the researcher and her theories remain detached from this world (Law & Urry, 2004; Shotter, 2006). As assumed beings, we are attentive to and responsible for our own actions, what we do with our theories and vocabularies. However, with this assumption, we fail to attend to and account for what the theories and vocabularies do to us. As possibility and responsibility are ascribed to our beings and limited to our doings, we miss being responsive to the possibilities of becoming in each moment, to all the

possibilities to be and act and create knowledge that lie outside our performatively enacted grid of intelligibility (Barad, 2007; Bergson, 2002; Introna, 2013)

Talking subjects and objects into beings: the performativity of language

The enactment of an ontology of being cannot simply be ascribed the intentions of the researcher. Rather, it appears often to be an unintentional slippage enacted through the vocabulary that has become attached to an ontology of being (Latour, 1996, 2004; see also Paper 3 for an extended discussion of this topic). Interestingly, this slippage is sometimes evident even in studies that adopt approaches intended to move beyond anthropocentric accounts and understandings of organizational phenomena. As I show in Paper 3, ANT is an example of an approach that, despite Latour's insistence that it is not about actors and interrelated networks (Latour, 1996, 2004), employs vocabulary and methodological prescriptions that tend to produce accounts that center distinct human and non-human actors and their agency in assembling networks in pursuit of heterogeneous translations. In other words, language not only describes the world but also performatively enacts it (Barad, 2003; Gherardi, 2016), or, in the words of Suchman (2007), "our language for talking about . . . persons or artefacts presupposes a field of discrete, self-standing entities" (p. 263). For example, by using words such as actor, network, connection and association, researchers tend to account for spatial relationality, that is, the co-constitutive movement of agency between actors. Action and agency are present, but emerge between elements and are assumed to be and enacted as separate and distinct (Barad, 2007; Introna, 2013). Irrespective of the intention of the authors, their work relies on a conceptual vocabulary that does not just represent, but also performatively enacts entities, for example, the nodes in an actor network, as ontologically separate social and material actors and agency as something attributed to separate beings (Latour, 1996, 1999, 2004). The problem, as I argued above, is that as actors and the interactions between them become foregrounded, the performative flow of everyday work practices—the temporal conditions under which these actors come to be and to act in the way in which they do—becomes backgrounded.

In order to avoid habitually and unintentionally reproducing human-centric understandings of and assumptions about the world, then, it is necessary to be mindful of the vocabulary used in research and in particular, that which it backgrounds and foregrounds in its enactment of organizational phenomena. The arguments put forward in this thesis share inspiration from philosophical traditions that attempt to transcend the subject–object dualism in order to develop a new conceptual repertoire and vocabulary that facilitate ever deeper thought and discussion regarding the inherent entanglement of the social and the material (Barad, 2003, 2007; Ingold, 2007b, 2015; Latour, 1988, 2005; Orlikowski, 2007; Orlikowski & Scott, 2014). In what follows, I present the ontological assumptions underlying such an approach.

The performative flow of agency: studying the sociomaterial with an ontology of becoming

If a being ontology assumes a view of actors as points or locations of original causes (which then need to be connected in some manner), an ontology of becoming implies an understanding of the world as fundamentally dynamic and emphasizes continuous movement, transformation, process, and the conceptualization of things, not as made but as “continuously in the making” (Bergson, 1999, p. 49). A key underlying assumption is that “existence is action” (Latour, 1999b, p. 179). That is, every action participates in the (re)enactment of all actors implicated in, or associated with, such action. Thus, actors or points are not the origin of action, nor is it the case that they preexist and then interact, whether in terms of primary or secondary qualities (or properties) (Latour, 2013). Rather, the movement of a thing, idea, or practice always already emerges from some prior action or translation in the past, the origin of which cannot be located, so that contingency is a temporal, rather than spatial, phenomenon. Thus, whatever “things” may be under discussion are in the making rather than given a priori qualities, just as states are temporary outcomes rather than inputs to processes. In this view, agency is not inherent in or belonging to any one actor, nor does it function in the form of a serial chain of consequences set in motion by an initial force (Barad, 2007). Consequently, agency is not something that can be exercised spatially in relationships among distinct actors, individual or collective. Rather, agency becomes like a temporal flow, always inheriting from previous practices (and

imparting to subsequent practices), yet also always subject to the contingent possibilities of the present (Deleuze & Guattari, 1987).

Research that is positioned in an ontology of becoming is often grounded in the work of Whitehead (1929, 1978), Bergson (2002, 2007), Deleuze and Guattari (1987), Foucault (1980), and Butler (1990). In the field of science and technology studies (STS), Latour (1988, 2005), Law (1999), Mol (2003), Pickering (1995), Barad (2007), and others have argued for an ontology of becoming. Also, as noted above, social anthropology, in particular the work of Ingold (2007b, 2011), is also very significant for its articulation of what he calls the animic ontology of life. Finally, there is also in organization studies a long scholarly tradition advocating for the adoption of an ontology of becoming according to which there is a need to account for, not organizational change, but rather the accomplishment of organizational stability within the flow or flux of becoming. Classic examples of this approach include the work of Cooper (1989, 2005, 2007), Chia (1995, 1999, 2003), Tsoukas and Chia (2002), Styhre (2004), Clegg et al. (2005), Bakken and Hernes (2006), and Hernes (2007).

This work shares a suspicion of the view of the subject as an autonomous, conscious, and stable entity that is the authentic source of action and meaning. As agency is not attributed to actors but continuously flows through practices, the “who,” the assumed subject or being, is constituted by the “how” so that the “I” is not external to the flow of agency and neither performs nor steers its direction. Rather, the flow is what “enables a subject and constitutes the temporal condition for the subject” (Butler, 1993, p. 60) by positioning her differently in practice. Put another way, the becoming subject emerges as a site, a position, continuously enacted in the flow of practices, rather than as a distinct and bounded entity. From this perspective, there is no fixed point outside the temporal flow against which it and its enactments—such as culture, identity, markets, technology, institutions, and financial resources—may be understood. Moreover, the work of connecting does not concern existing self-contained entities spatially, but rather actualizing things in the making, bringing them from virtuality to actuality (Deleuze, 2004).

In his books *Lines: A Brief History* (2007) and *The Life of Lines* (2015), Ingold describes the flow of agency as “agentic lines” and argues that to study

“things and people is to study the lines they are made of” (2007, p. 5). Lines, for Ingold, are not defined by the points or entities that they connect, or by the points that may compose them. Rather, they are trails along which life is lived (2006, p. 13), knotted together to form a “meshwork” (2007, 2011, 2015). In the meshwork, lines as they flow do disclose relations, not between one thing and another, between the organism “here” and the environment “there,” but rather only in correspondence with other lines. Unlike interaction, which entails movement *between* actors or entities, correspondence enacts movement *along* lines. Thus, becoming along the corresponding lines in the meshwork is neither one nor two, nor the relation of the two, it is the “in-between.” Following the lines in the meshwork entails following, temporally, the transformative flow of agency, rather than assumed “actors.” As Ingold (2011) suggests, this agentic flow of life “is not an object that I interact with, but the ground upon which the possibility of interaction is based. The [flow], in short, is the very condition of my agency. But it is not, in itself, an agent” (p. 93).

The notion of performativity is important for understanding agency as a flow along the correspondence of lines. Performativity cannot be captured by the word “performance” and is not based on the authority of the actor but must rather be understood in the context of a process of iterability, that is, a regularized and constrained repetition of norms (Borgerson, 2005; Butler, 1993), or a reiteration of authoritative constructs (Butler, 1997). In general, a performative discourse contributes to the constitution of the reality that it describes (Callon, 1998); as Foucault (1972) puts it, discourses “systematically form the objects of which they speak” (p. 54). By focusing on the constitution of the subject, performativity captures the circular processes whereby subject positions are enacted and reiterated, presupposing the subject and the practices that these positions seek to describe (Borgerson, 2005; Butler, 1997). In other words, performativity acts to produce that which such acts already assume (Butler, 1990). This apparently paradoxical and circular formulation disrupts any attempt at bifurcation and works against any form of reductionism, such as reducing agency to the “social” or the “technical.”

Importantly, this does not mean that processes of iterability always effectively enact what they name or assume nor that subjects are determined

by discourse. According to Butler, subjects can refuse to assume a given subject position, though such acts of resistance always take place within the discourse of that position and using the terms that constitute the subject. Thus, the subject “who opposes its construction, draws from that construction, and derives agency by being implicated in the very power structures it seeks to oppose” (Salih, 2002, p. 79).

Subordination, then, is what provides the subject’s continuing condition of possibility; it is the very precondition of its agency. Butler calls the act of opposing the enactment of a certain position “an enabling violation” that captures the way in which the subject is simultaneously subordinated to and enabled by discourse; individuals cannot choose the terms by which they are subjected, but the open-ended nature of language provides the opportunity for “something we might still call agency” (1997, p. 38). Performativity constitutes, but does not fully determine, the subject (Barad, 2007). For scholars challenging the ontological separation of the human-material relationship, the notion of performativity acknowledges the fact that relations and boundaries between humans and technologies are not predetermined or fixed, but are rather enacted in practice (Orlikowski & Scott, 2008). In the next section, I will explore this notion in greater detail.

Positioning discourse and materiality as ontologically inseparable

Most of the studies that draw on work rooted in an ontology of becoming agree that the practice through which the performative conditioning of the becoming subject takes place is language. Although human lives since the latter part of the twentieth century have become increasingly entangled in and dependent upon technical systems, materiality in a broad sense has received relatively little attention as a topic of research (Carlile et al., 2013; Orlikowski & Scott, 2008). An analysis by Orlikowski and Scott (2008) of all articles published in leading management journals in the preceding decade found that 95 percent of them failed to take into consideration the role and influence of technology in organizational life. It appears that organizational phenomena, even when understood processually, are still largely conceived of as a confluence of minds and intentions or as purely communicative undertakings.

Materiality, however, is in no way absent from the writings of the scholars discussed above. Foucault, for example, argued that discourses are not only realized in “the textuality of representation and knowledge, but in the regulating principles and actions of institutions, in forms of everyday practice, in actual material arrangements such as that of architectural structure” (Hook, 2007, p. 179). His argument in *Discipline and Punish* (1975) is that it is through the repetition of specific physical acts that bodies are reworked and that power takes hold of the body, while the specific material arrangement of the prison (e.g., the panopticon) supports and enacts particular discursive practices of punishment (Barad, 2007). Butler for her part, in *Gender Trouble* (1990), proposes “a return to the notion of matter,” not as site or surface, but as “a process of materialization that stabilizes over time to produce the effect of boundary, fixity, and surface we call matter” (1993, pp. 9-10). This conceptualization of matter foregrounds the importance of recognizing it in its historicity and directly challenges the understanding of it advanced by representationalism as a static entity or a location, referent, fixed support, or source of sustainability for discourse (Barad, 2007).

To be sure, contemporary social studies of technology (Beunza et al., 2006; Bijker & Law, 1994; Callon, 1986; Haraway, 1997; Knorr-Cetina, 2009; Latour, 1996, 2005; Mol, 1999; Pickering, 1995) have challenged and transcended conventional distinctions between the social and the material. This work has greatly contributed to develop our understanding of the role of materiality in organizing by insisting on speaking of the social and the material, not as separate, interacting entities, but as intertwined phenomena constituting actor-networks (Callon, 1986; Latour, 1992, 2005), sociotechnical ensembles (Bijker 1995), or a mangle of practices (Pickering, 1995). Use of these terms constitutes a refusal to limit the human-material relationship to a dualistic interaction. It also constitutes the post-humanist ambition to de-center the human subject and to account for agency, not as an essence located within humans, but rather as “a capacity realized through the associations of actors (whether human or nonhuman), and thus relational, emergent, and shifting (Orlikowski, 2007, p. 1438). These studies accordingly share a view of the human and the material as performed relations (Orlikowski, 2008), emerging in ongoing, situated practice (Pickering, 1995; Latour, 2005) rather than as pre-formed substances.

This thesis builds on the work of these scholars and others (Introna, 2011; Nyberg, 2009; Orlikowski, 2007; Orlikowski & Scott, 2008) to argue that considerable analytical insight can be gained by ceasing to treat the social and the material as distinct and largely independent spheres of organizational life and instead considering them as being constituted through each other (Orlikowski, 2007, 2008). An example from the IS field is the “umbrella” concept of sociomateriality, which has been advanced primarily by Wanda Orlikowski and Susan Scott (Orlikowski, 2007, 2010; Orlikowski & Scott, 2008; Scott & Orlikowski, 2014) and is central to this endeavor.

In this thesis, I ground my work in the literature on sociomateriality, in particular the writings of Barad (2003, 2007). In developing her ontological position of agential realism, Barad draws on a Foucauldian notion of discourse but argues that further attention needs to be given to the “material nature of discursive practices” (2007, p. 63). For her, discourse is always materialized in some form and in specific times and places, and accounting for this materialization allows for a better understanding of how meaning is made possible in practice. In this view, materiality is not a separate or static entity, serving as a source of sustainability for discourse, for by using the term material-discursive she emphasizes the entanglement of these two notions. This “notion of constitutive entanglement presumes that there are no independently existing entities with inherent characteristics” (Barad, 2003, p. 816), since “To be entangled is not simply to be intertwined with one another, as in the joining of separate entities, but to lack an independent, self-contained existence” (2007, p. ix). Barad also employs the term “intra-action” to emphasize the sense in which subjects and objects emerge through their relations, in contrast with the standard conception of “interaction” among separate entities (Scott & Orlikowski, 2014). Attending to the intra-actions of phenomena under study means focusing “on the particular practices through which distinctions and boundaries (e.g., between humans and technologies) are produced, stabilized, and destabilized” (Scott & Orlikowski, 2014, p. 878).

Drawing on Butler’s conception of performativity, Barad attempts to consider with greater care the intimate entanglement of non-human and human elements in the constitution of meaning. In her “post-humanist” account of performativity, she “calls into question the givenness of the

differential categories of ‘human’ and ‘nonhuman,’ examining the practices through which these differential boundaries are stabilized and destabilized” (Barad, 2007, p. 66). This means that, in a post-humanist account of performativity, attention is directed, not to that which actors do, think, or say, but to that which provides them with their actions and intentionality, namely ways of acting that are already assumed to be appropriate and legitimate by the circulating flow of agency through material-discursive practices (Barad, 2007; Ingold 2007b; Introna, 2013) Thus, in this view, the subject emerges as a position that is both the effect of a prior condition of possibility for agency and the conditioned form of agency; it is that which is taken up and reiterated in the subject’s “own” acting (Butler, 1997b). In other words, discourses (or in Barad’s terms, material-discursive practices) themselves construct the subject positions in the context of which they become meaningful and have effects. This means that individuals will not be able to “take meaning” (Hall, 1997, p. 40) until they have identified with those positions that the discourse constructs and have subjected themselves to its rules (Foucault, 1980, 1982; Hall, 1997). As with meaning, there is no “subject” outside material-discursive practices.

In sum, in light of organizations’ entanglement with increasingly complex and interdependent technologies (Carlile et al., 2013; Orlikowski & Scott, 2008), I argue that it is important to develop additional conceptual lenses and alternative research approaches that enable researchers to account for the constitutive entanglement of “the social” and “the material”. It is important not only because it enables us to move beyond understandings of the willful agentic human driving organizational change and to understand and critically scrutinize the material-discursive conditions of possibilities performatively enacting certain practices and subjects as legitimate and eventually taken for granted, but also because it increases our possibilities to respond—creatively and responsibly—in our becoming as researchers.

Chapter 3

Empirical context and presentation of case organizations

New Public Management and Lean in the public sector

The public sector in developed economies and nations has for the most part of the twentieth century and into the twenty-first, been managed through professional dominance (Scott, Ruef, Mendel, & Caronna, 2000) and a hierarchy of governance structures and systems (Osborne & Gabbler, 1993). The primary institutional logics have stressed professional authority and the quality of work as defined by the professional (Bird, Conrad, Fremont, & Timmermans, 2010) and democratic and bureaucratic processes associated with governance and political accountability (Hood, 1991). One of the most prevalent developments in the public sector over the past three decades has been the promotion of market managerialism, or New Public Management (NPM), as a way to control public expenditure and to make administrations more receptive to political and societal demands (Meyer & Hammerschmid, 2006; Pollitt & Bouckaert, 2004). This movement has led to increased market orientation, decentralization, managerialism, contracting, a conception of citizens or users as customers or consumers, and adoption of popular management practices such as total quality management (TQM), Lean Management, and Six Sigma (Westphal, Gulati, & Shortell, 1997). The introduction of NPM has often conflicted with strong professional ideals stressing professional authority and the quality of service defined by the physician, teacher, or case administrator.

Lean management practices originated in the context of the Japanese automotive industry and have spread across countries and sectors, including services and the public sector. The principles embedded in Lean practices emphasize the development of process capability with a focus on maximizing flow rather than resource utilization (Liker, 2004; Modig & Åhlström, 2012). Lean also involves the development of learning capability through routines for problem identification and solving and solution retention, thereby promoting continuous improvement (Fujimoto, 1999). With the diffusion of Lean management practices, these principles have repeatedly been reinterpreted to “fit” different contexts. In the Swedish public sector, development projects described as “Lean initiatives” are common, and national programs exist to support Lean initiatives across organizations (e.g. Produktionslyftet, 2017).

In the following section, I will present the two organizations at which I conducted my fieldwork, Nordic University Hospital and the Swedish Migration Board. The process through which these organizations were selected is accounted for in the methods section.

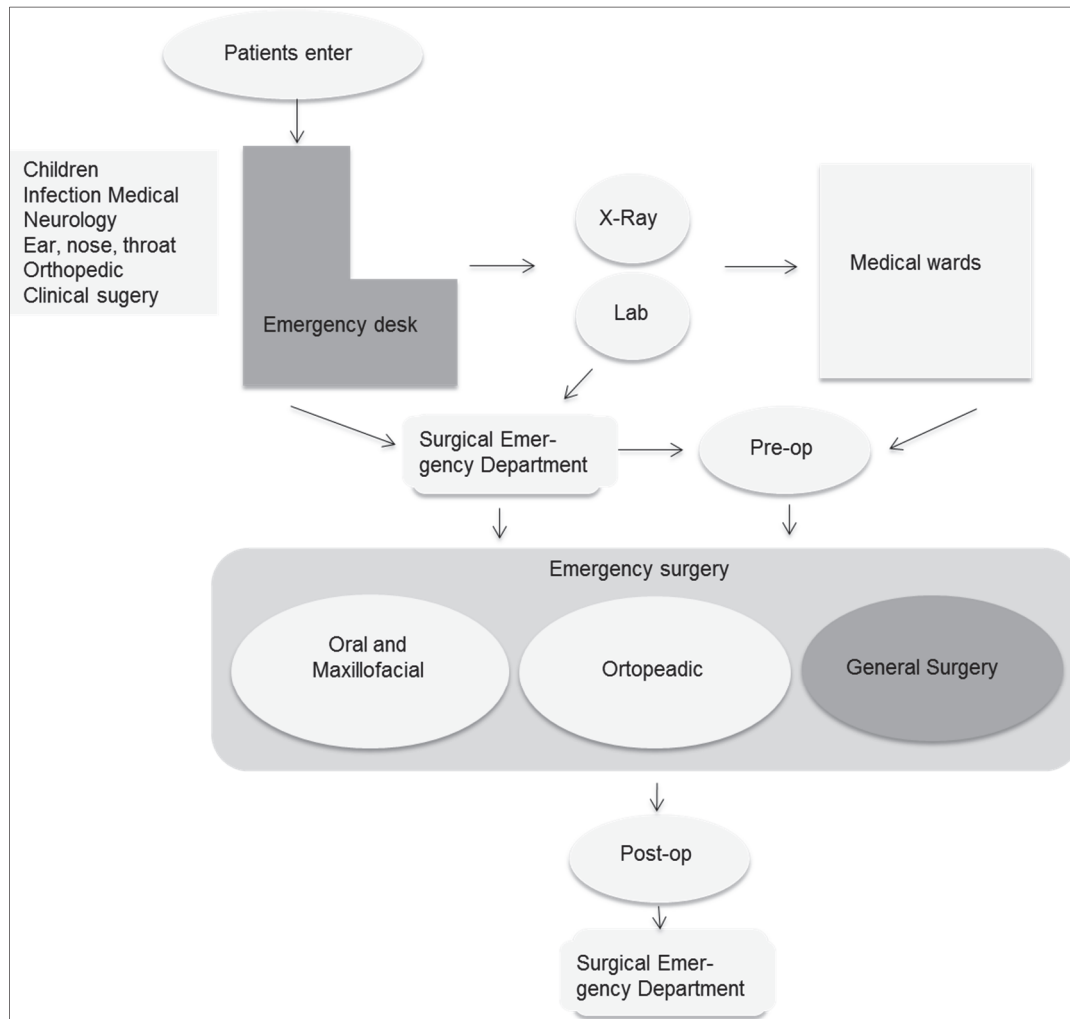
Nordic University Hospital

Nordic University hospital (a pseudonym) is a publicly owned and funded tertiary academic medical center that, since a merger in 2004, has operated at two main sites in a Nordic capital. The organization has a budget of around 1 billion Euros and a staff of 15,000 that serves a population of some 2 million. In 2007, the hospital management initiated a strategic, long-term improvement program built on Lean management practices, with the aim of improving quality and efficiency throughout the care processes. The implementation began at the emergency department, which generates approximately 60% of all hospital admissions. The strategy was guided by the goals of reducing average patient waiting time, increasing the throughput of patients, and improving quality and safety through standardization and continuous improvement of work routines. The implementation process has been designed and facilitated by the hospital’s Strategic Services Development Unit (SSDU). The SSDU consists of eight so-called “flow coaches” responsible for training and coaching line managers and the operational “improvement teams” in the development of Lean practices. Two system developers

work as the bridge between the operations and the IT organization, with the primary purpose of developing the operational IT systems to facilitate the adoption of Lean practices. An important part of their responsibility is the support and development of the digital visualization boards, which have been introduced to support visualization and coordination of patient flow within and across wards.

In this thesis, I focus on the general surgery ward, which is one of three emergency surgery wards, and the emergency desk. An overview of the emergency department and its patient flow is displayed in Figure 1, with my chosen units of study highlighted in dark grey. I choose to focus on the general surgery ward for this first paper because it is the ward that most recently began to implement Lean practices: while the new work routines were implemented at the emergency desk in 2007 and at the orthopedic and oral and maxillofacial wards in 2009, the general surgery ward only began the implementation process in October 2011. In the second paper, I focus on the use of so-called “flow boards” at the emergency desk, which have been implemented to support a steady and efficient patient flow.

Figure 1. Overview of the emergency patient flow and my two units of study



The Swedish Migration Board

The Swedish Migration Board (MB) is the central authority for the implementation of migration policy in Sweden, managing asylum applications and making asylum decisions and defending them in appeals court. It is also responsible for managing the integration and settlement of those to whom asylum is granted. The MB has approximately 7,000 employees (as of November 2015). Foreigners who come to Sweden can apply for asylum at the border or at one of the MB's application units, which can be found in six

Swedish cities. The processing time for a given case varies with the number of asylum seekers at the time and the complexity of their cases, ranging from roughly a month to more than a year. Complex cases often require attempts to collect information from the asylum seeker's home country, which may be war-ravaged or facing other challenges that make obtaining and assessing the validity of information difficult. It is often the case that, the longer asylum seekers reside in Sweden, the more complicated their situations become, since they grow rooted in a local context and may, for example, go into hiding in anticipation of a final, negative asylum decision. The variation in the number of asylum seekers from year to year, can range from around 20,000 to over 80,000 individuals¹, placing substantial planning and workload challenges on the SMB and its case officers.

In September 2008, the MB decided to review the asylum process in order to generate proposals for shortening the turnaround and waiting time for applicants. A management consulting firm was appointed to lead the project in collaboration with representatives from the operations. The analysis and proposals formulated by this firm were based on the Lean model.

Three of the papers in this thesis are based on data collected at the Swedish Migration Board. One of these papers is based on fieldwork conducted at the examination unit in Stockholm and two papers are based on fieldwork conducted at the reception unit in Stockholm. Examination units are responsible for the legal examination of asylum cases and reception units serve to inform applicants regarding the authority's decisions, the asylum process, and applicants' rights to healthcare, education, and work. They also enact grant decisions and issue debit cards and asylum seeker cards.

¹ 2015 was an exceptional year with more than 160,000 applicants.

Chapter 4

Method: towards onto-epistemology

We must bear in mind that this taking a stand too often becomes the death knell of creative acts of reading and of course making. Another kind of stand must be taken, one that erupts from the midst, one that engages sympathetically with the unknowable at the heart of difference, one that heads the uneasiness of an experience that cannot yet be categorized. Otherwise we find ourselves right back where we started outside looking in at what is already recognizable, at what is already known. (Manning 2015, p. 63)

Background

Adopting an ontology of becoming implies recognition of the fact that this position is not the result of structured, purposeful work. And indeed, my experience is not that I have chosen, nor intentionally worked my way to, this position, which I see rather as the result of a complex and historically contingent sociomaterial process. Had a certain conference paper of mine not been assigned to a certain reviewer who gave me specific insights at a certain time, had I not joined my partner on his business trip to London and happened to have the opportunity to meet with a certain professor in Lancaster, and had I not had the technical means, such as a voice-to-text software to help me write and an app on my iPad to help me to read and summarize my notes, I would not be where I am today. I would not have argued for my ontological position in this section in the exact same way in which I do now. This realization creates a feeling of modesty regarding my own assumed truths and assertions, a feeling that I cannot and probably would not gain from taking myself, my assumptions, theories, and theses too seriously. This

insight creates in turn a curiosity that drives me to continue to flow along the interweaving lines of agency constituting my research life to see what new directions I might take.

In saying this, I want to emphasize that the ontological position that I describe here is an expression (and enactment) of the position that I assumed, and thus, the subject I became, in the moment of writing this kappa. It is not the same position, and thus not the same subject, that wrote the first paper to be presented in this thesis. Nor is it the same subject that will stand at the public defense. In other words, the reader of this thesis cannot expect complete consistency. My ways of describing my position and my methods in the five papers that comprise it reflect and enact different understandings of the kind of epistemic practices in which I have engaged during fieldwork and analysis, and it is not my ambition here to try to conceal the fact. Instead, I want to acknowledge that this five-year PhD project has been a journey that has placed me in many different subject positions, allowing me as a researcher to intra-act in the world in many different ways. Figure 2 offers an overview of this journey, relating the empirical phenomenon and the philosophical, methodological, and theoretical concepts that have inspired me and been central to my understanding of what my PhD project is about and what kind of researcher I am at different points in time. The figure depicts a journey from an interpretivist position, in which I wanted to uncover the underlying meanings or logics that caused people in my interviews to speak and behave in certain ways, to a post-humanist position, in which the answer to why interviewees speak and behave in certain ways cannot be found in some underlying meaning or some overarching discourse, but resides rather in the material-discursive practices in and through which people act and at the same time become enacted. The chronological arrangement of the papers in this thesis makes it possible to trace the journey. For example, in the first paper, I am inspired in terms of theory by the sociomaterial discourse rooted in a relational ontology, but I lack the tools and vocabulary to integrate epistemology into my analysis, and I explicitly assume an interpretivist stance, from which I aim to “attend to meaning systems, symbols, myths and processes by which organizations interpret their institutional environments.” Although this paper provides what I hope are valuable insights into the performativity

of sociomaterial practices, I have come to find that it falls short in recognizing the entanglement of the researcher in these practices. As I argue in the fifth paper, in recognizing the position of the researcher as entangled in sociomaterial practices rather than as a distant observer or interpreter, creativity returns to the research in the process of attending to all of the details in researchers' experiences of becoming within sociomaterial practices, which include past experiences, expectations, and emotions. Thus, if, in 2013, I had assumed the same position as a researcher that I assume now, I would have accounted for my experiences differently and thus enacted the organizational practices that I have studied differently.

Data collection at Nordic University Hospital

In 2012, I started my PhD as part of a team of six researchers with different backgrounds, interests, and seniority to work in a research project titled "Lean Practices and Information Technology: Exploring the Contradiction." The overall purpose of the project was to investigate the dynamics between the Lean principle of working with local and small-scale changes and improvements and the deployment of information technologies, often building on large-scale initiatives aimed at the automation of defined processes. During the first year, the members of the research team conducted short field trips and discussed the literature and possible ways to design studies and collaborate on articles.

Figure 2. Overview of my PhD journey

Time	2012	2013	2014	2015	2016	2017
Philosophical foundation	Social constructionism	Phenomenology Interprativism Interviews Case study Micro level	Critical realism Practice Narrative analysis Observations Abduction Triangulation	Relational Performativity Reflexivity	Post humanism Process Genealogy	Ontology of becoming
Methodology	Explorative	Grounded theory Retrospective Semi structured Coding	Discourse analysis Rhizomatic Shadowing	Diffraction	Intuition	Tracing the interweaving of lines
Theoretical concepts	Interpretive frames Institutional logics Routines Institutional work	Socio-technical Boundary objects ANT Organizational change Teamwork Operational/Flow efficiency Lean implementation IT implementation/adoption/development Continuous improvement	Epistemic objects Sociomateriality Socio-materiality Affordances Agency Healthcare	Identity work Sensemaking Becoming Agential cu Enactment	Translation Critical theory Subjection	Meshwork Flow Hailing Interpellation
Empirical focus	Lean & IT	Space Public sector Emotions	Power Professional identities Organizational identity Quality Resistance	Subject positions Subjectivity	Agentic lines	

Our fieldwork at Nordic University Hospital (hereafter Nordic) began in November 2012. The organization was, and at the time still is, in the midst of an extensive transformation project aimed at implementing Lean practices. We were afforded access to the project by one of its strategic level managers. Approximately a third of the interviews conducted at Nordic for this thesis involved other members of the research team in addition to myself. During the first year, however, it became clear to all members of the team that our interests had diverged and that we would no longer be able to collaborate in the process of data collection. The team therefore gradually dissolved, and I continued my data collection after reorienting my approach to the research project.

The data collection at Nordic was exploratory, and in the beginning we interviewed people working in various units at various positions within the hierarchy. We also conducted observations, primarily at the emergency department (which was the first department to implement Lean), under the guidance of an IT developer who was part of the hospital's Strategic Services Development Unit (SSDU). During these observations, certain operational practices involving the three different forms of visualization boards in use struck me as particularly interesting. These boards seemed not only to direct the attention of the staff in certain ways, enabling them to communicate, collaborate, make decisions, and establish priorities, but also to challenge certain understandings regarding who the members of the operational staff were supposed to be in relation to each other, the patients, and the hospital management. There seemed to be a tension inherent in the daily enactment of these boards between the ingrained understandings of how qualitative healthcare is produced and the expectations and assumptions enacted in the sociomaterial practices, including these boards. It was these tensions in particular that interested me and came to inform my case selection and data collection going forward. Thus the case selection in this thesis is a result of an exploratory and iterative process in which data collection has both inspired and been informed by theoretical readings and writing of papers.

The collection of data at Nordic was, as noted, initiated in November 2012. Retrospective data were collected for the period from October 2011 to November 2012, and real-time developments were studied from Novem-

ber 2012 to June 2013. From June to October 2013, I conducted supplementary interviews and observations in order to deepen my understanding of certain operational routines. In total, I spent approximately 79 hours observing the operations of the emergency department in the period from December 2012 to September 2013 (see Table 1), initially participating in the operational morning meetings and observing the work at the emergency office where the operational coordinator planned the work of the teams and where staff members came by to check the status of the operations or to converse with colleagues. I also participated in meetings with the improvement team that were held for two hours every other week and observed the work of the so-called “flow nurses” and “flow doctors,” whose responsibility it was to coordinate the workflow of the ward, with particular attention to their use of a specific visualization board. A final set of observations included the medical professionals’ interactions with patients. My focus during these observations emerged and became clear over time; from the position that I assumed in the second paper, I describe it as trying to be attentive to how the unfolding of material-discursive practices provided the constitutive conditions for the medical staff to act and become enacted in certain ways.

In addition to these observations, interviews were also an important method for collecting data. Some occurred spontaneously after the meetings and served to clarify my observations. Most interviewees were identified through “snowball” sampling (Noy, 2008), with the interviews being semi-structured, open-ended, and following a protocol that evolved with the various studies (Strauss & Corbin, 1998). Initially, interviewees were asked to describe their personal experience with respect to the implementation of Lean and to various “Lean tools,” such as the visualization boards. They were especially encouraged to elaborate on the functionalities of, or practices related to, the boards that they found to be particularly useful or problematic. I encouraged interviewees to describe, in as much detail as they could, the specifics of their daily work routines.

I also collected archival data, primarily at the outset of the study, which provided information about the background and purpose of Lean practices and the visualization boards. This data included the strategic plan for the implementation of Lean at Nordic, specifically in the emergency room,

standards and role descriptions for the new Lean work routines, and user manuals for the flow boards.

Table 1. Interviews and Observations at Nordic University Hospital

Medical staff	Nr of interviews
Emergency general surgery ward	
Surgeons	4
Surgeon and "Flow Manager"	1
Nurse Anesthetist	5
Nurse Anesthetist, acting Head nurse	1
Nurse Anesthetist and coordinator	1
Anesthesiologist	5
Surgical nurse	4
Business Unit Manager	1
Orthopedic surgery	
Assistant Medical Director	1
Nurse Assistant	1
Nurse Anesthetist and coordinator	1
Emergency desk	
Head of Care Unit	1
Physician (2 interviewees were interviewed twice and thus are part of the data collection for article 1 and 3)	9
Nurse (3 interviewees were interviewed twice and thus are part of the data collection for article 1 and 3)	9
KAVA	
Head nurse	1
Nurse Anesthetist and Department Leader	1
Management and support functions	
Division Manager	1
Flow coaches SVU	3
IT representatives SVU	2
Tf teknik- och arkitekturchef, SKL-IT	1
Total number of interviews	53
Hours of observations at general surgery ward	65
Hours of observations at emergency desk	14
Total hours of observation	79

Data collection at the Swedish Migration Board

The fieldwork at Nordic was for me a new, sometimes a bit strange, and exciting experience. I enjoyed fumbling around without knowing exactly where I was going but formulating ten new ideas every day. However, although I aspired to call myself an ethnographer, I cannot say that I felt like an insider (Brannick & Coghlan, 2007); as a social scientist with my notepad surrounded by emergency staff all dressed in green scrubs, I was clearly anything but. Feeling that I was always in the way and that I did not speak their language could be stressful. I decided to find another case site in an organization more like the world from which I came, somewhere I could feel more like an insider. Since at this time I still introduced myself as a “Lean researcher,” I asked my colleagues in the corridor if they knew of larger organizations that had recently started working with Lean, and the Migration Board came up as an early suggestion. After some research, I discovered that it had worked with Lean since 2009 and that the implementation had attracted much attention, including a considerable amount of criticism, both internal and external. Since I had developed an interest in friction surrounding the new Lean work routines at Nordic, MB piqued my interest, and I initiated contact with a so-called “Lean navigator” responsible for developing the Lean work routines there. Through her, I came in contact with a number of teams at the examination unit, whose work I began to follow.

I started my fieldwork at the MB in November 2012. The first part of the study, which focused on the examination unit, continued throughout the spring of 2012. As my approach was exploratory, observations during the early phases of the fieldwork were aimed at tracking and developing an understanding of all the major work practices of the unit’s case officers and team leaders. These observations included asylum examinations, daily morning meetings with the teams, weekly meetings with the unit team leaders, individual case officers’ work routines, and ongoing informal discussions with staff members during lunches and coffee breaks (see Table 2).

As my engagement with the literature deepened and my analysis started to take shape, I focused my observations on the practices that had developed or fundamentally changed since the implementation of Lean and had repeatedly appeared in the data as central to the enactment of “legitimate and effective work” for case officers and team leaders. In other words, the central

aims of these observations were to explore and reveal the constitutive conditions of a specific flow of practice and to understand how different subject/object positions were enacted along this flow.

Building on insights from this first exploratory study and with inspiration from the literature on identity work and sociomateriality, I found that my focus was shifting toward the enactment of identity practices in the daily work of the case officers. In January 2014, an opportunity arose to carry out four months of ethnographically-inspired work at the MB reception unit in Stockholm. This unit was chosen for study primarily because of the chance to follow a group of seven newly-employed case officers, which would allow for the enactment of a participant observer (or insider) identity through participation in the week-long training program for the new officers.

In addition to following the group of new recruits for a week, I established closer contact with two junior officers over the months of the ethnographical work. In the company of these officers, I was able to interview and observe many of their colleagues and managers. This fieldwork was conducted from January 10 to April 25, 2014, during which time I spent approximately two to three days (most often divided into half-days) a week involved in the operations, attending internal meetings, and observing the individual work of case officers and their meetings with the applicants (see Table 1)

Complementary to the observations, a total of 67 interviews were conducted with staff members from all professional categories (unit managers, team leaders, case officers, assistants, IT staff, and staff working as “change agents” to support the ongoing development of Lean practices (see Table 2). Most interviews focused initially on current operational practice, such as the nature of a workday, various challenges and pleasures related to various practices, interactions with applicants, colleagues, and managers, and so on. The questions asked during these interviews were aimed at acquiring a situated and nuanced sense of the flow of current work practices and of how the interviewees saw themselves and their responsibilities as professional public servants. An effort was also made to explore issues relating to change, professional performance expectations, and potential resistance to the new “Lean routines.”

As noted above, archival records were also an important source of data (see Table 4), in particular to gain a deeper understanding of how agency had

flowed historically in the operational practices and had inherited and imparted certain ways of doing and thinking. Such materials as implementation guidelines, press releases, PowerPoint presentations used in the implementation of Lean, and activity logs from the development of the scheduling system all served to complement the observations and interview accounts and to provide a richer understanding of the implementation of Lean and of the development of the SKAPA administrative system and the scheduling system.

Table 2. Breakdown of Observations at the Migration Board

<i>Events</i>	<i>Hours at Ex. Unit</i>	<i>Hours at Rec. Unit</i>
Team meeting	8	6
Team leader meeting	5	3
Unit meeting	2	1
Unit manager meeting	3	2
Feedback meeting new employees		2
Meeting about planned service center		2
Observations of desk work of case officers	7	7
Lunch/Coffee break	7	11
Training	5	18
Observations reception area		32
Observation of meetings with applicant (45-90 min)	8	11
Total hours of observation	45	95

Table 3. Interviews at the Migration Board

<i>Interviewees</i>	<i>Number of interviews</i>
Case officers	28
Team leaders	14
Unit Managers	4
Change agents	2

IT employees (System developers, Requirements Analysts, Project Managers, IT support staff, IT Architecture experts, IT Management)	8
Statistics department	1
Lean Navigators	3
Higher Management (Member of management team or reporting to member of management team)	7
Total number of interviews	67

Table 4. Archival material from the Migration Board

<i>Archival material</i>
PowerPoint presentations about purpose, principles and applications of Lean at the Migration Board
Report of consultancy company
Lean implementation plan
Lean training material
User manual for the work scheduling system
Standard Handbook
IT activity logs
Requirements priority lists
IT change requests
Anthology of the Migration Board's "Lean journey"

From a humanist interpretivism to performative sociomaterialism

In the context of a representational ontology, the job of the researcher is to find the best viewpoint from which she can get to “know” the world by creating representations of processes, events, objects, and so forth using concepts, figures, graphs, and other epistemic tools (Cetina, 2009; Latour, 1999; Law & Urry, 2004; Shotter, 2006). As focus is on the individual mind as the primary element of existence and analysis, agency is understood as being essentially human. Materiality does not count for anything substantial but rather, is viewed as a projection screen for socially constructed meanings, a resource or tool that the subject can use to create itself as a particular kind of subject (Introna, 2013; Orlikowski & Scott, 2008). A research approach

grounded in an ontology of becoming requires something else. It requires the acknowledgment that actors or points are not the origin of action (Ingold 2011, 2015). Rather, the movement of a thing, idea, or practice always already emerges from some prior action in the past, the origin of which cannot be located (Barad 2007; Ingold, 2015). Conditions, practices, routines, and behaviors that seem necessary and self-evident are not necessary so; they are instead outcomes of extended and historically contingent flows of agency (Introna, 2013, 2015). From this perspective, knowing is not developed through representations created at a distance, but rather from a direct material engagement with the world (Barad, 2007; Introna, 2013; Shotter, 2014). In contrast to a Cartesian metaphysics that retains a duality between mind and body, social and material, and produces human-centered representations of technology as an external object or tool, a becoming view of the world acknowledges thinking, observing, experiencing, measuring, theorizing, and knowing as material practices of intra-acting within and as part of the world (Barad, 2007; Introna, 2013; Thiele, 2014). A becoming ontology thus rejects the view of knowledge as something attainable using human agency and embraces an understanding of it as a process inseparable from the practices performed to reveal it.

In the fifth paper, I elaborate on the performative consequences of moving from a humanist representational approach to a performative approach grounded in an ontology of becoming for studies of subject formation, in this case, subjects working in and visiting the reception area of the Swedish Migration Board. In the following section, I present some examples of epistemic practices grounded in an ontology of becoming that have inspired me and provided guidance as I have worked on the various papers that make up this thesis. I account for the methodology used in each of the papers and conclude with a reflective account of the processes through which I transformed my data into discourse.

Tracing the flow of agency genealogically

An ontology of becoming, then, assumes not definite origins but rather multiple “beginnings,” so that it becomes necessary to acknowledge how small differences and details that come to matter in sociomaterial practices are not always planned and constructed, but are often the consequence of a number

of contingent historical outcomes (Foucault, 1991; Ingold, 2011, 2015). As a consequence, the coming into being of an actor can only be understood by tracing its sociomaterial becoming through time, performing what Foucault calls a history of the present, or, in other words, a genealogy (Foucault, 1991). A genealogy begins in the seemingly self-evident present (of practices and subjects) and reveals that the becoming of this or that actor is neither self-evident nor necessary, but rather is enacted in a flow of agency that is subject to contingency, accident, and chance (Foucault, 1988). The third paper, for example, begins the inquiry into the process of the translation of Lean at the SMB into the current daily work of the case officers. That is, it begins in the self-evident present, in what Lean has become through the enactments of sociomaterial practices. The historical lines through which these practices have become enacted as legitimate in a “Lean operation” are then traced genealogically, making visible the constitutive conditions that allow this particular flow of practice to seem obvious, meaningful, or legitimate.

In these kinds of genealogical accounts, the “who,” the assumed subject or being, is constituted by the “how,” and the exact details of the unfolding of sociomaterial practices, although seemingly peripheral and trivial, matter ontologically (Introna, 2013). Such an inquiry does not begin with an interest in a specific end, and the analysis will not involve an unraveling of the interests that may cause certain actors, or me, to act in specific ways or to wish for a specific outcome. The aim is to explore, not how the doings or actions of assumed entities interrelate or connect, but rather how the possibilities for action and the flow of agency become conditioned (Barad, 2007; Butler 1990, 1997a; Ingold, 2015).

Allowing the heterogeneity to speak imaginatively

As part of the effort to move beyond a human-centric approach and to understand the performativity of the flow of material-discursive practices, I suggest in the fifth paper that the accounts of interviewees and the recordings of verbal interactions between people in the field are insufficient and that the goal in this kind of inquiry should be to invite as many actors as possible to participate in the creative process of doing research and accounting for how they come to matter, to affect. Since theories, concepts, materialities, visuals, emotions, future prospects, and ways to “collect data” are all creative actors

in the research process, they too should be included in the creative co-production of our research. The question, then, is how to invite and account for the performative becoming of these actors.

One answer is provided by Bergson (1999, 2002), who proposes intuition as a way to conceive reality in its unique becoming rather than through a preexisting system of symbols and translations. Such an approach acknowledges the limitations of human agency in the research process and allows the data to find and direct researchers to make new and nonlinear connections. While representational analysis begins from a position outside of a thing and seeks to understand that thing through a structured interpretation, intuition means that the researcher inserts herself in the thing. By so doing, or as Bergson puts it, being (or rather becoming) “in sympathy with” the object “by an effort of imagination,” it is possible to know the movement of an object through space “from within” (Bergson, 1999, p. 1; cf. Coleman, 2008).

Unlike the knowledge gained from the practice of connecting actors or points, the knowledge produced through intuition is derived from experiences stored and enacted as movements and feelings rather than from locations (Ingold, 2015, 2016). What matters in this process is not the origin or some underlying meaning or logic, but an opening of a different type of knowing produced in a co-constitutive relation between matter and discourse through which it is impossible to disentangle the knower from the known (Taguchi, 2012). Intuitive insertion into sociomaterial practices allows researchers to move away from the position of being outsiders so that, rather than reproducing knowledge through concepts, models, and categories, they add creativity to the process by attending to all of the details in their experiences of becoming within sociomaterial practices, including their past experiences, expectations, and emotions (Manning, 2015; Shotter, 2014; Taguchi, 2012).

In all of the studies in this thesis, I have been attentive to the ways in which mundane material-discursive practices enact that which is taken for granted as legitimate, meaningful work. During my fieldwork, I have taken hundreds of photos of case officers’ work practices, their work spaces, desks, whiteboards, laptops, and so on. Since my approach was exploratory and I was unsure of my thesis topic, I saw everything as potentially valuable data. I took photos of elevators and printers, toilet signs, and the Friday meeting

breakfast table. I also collected captured images of the officers' computer screens while they worked. These photos and images provided valuable information and details regarding specific practices and also allowed me to "pause the flow of agency" in order to ask questions regarding which practices were enacted as legitimate in a given flow, how various practices positioned the subjects, and the constitutive conditions necessary for a given practice to make sense. This approach allowed me to reposition myself as a researcher as something other than merely an always already subject and my participants and their material conditions as something other than merely always already objects so as to ask how, for example, the case officer, the applicant, and I became affected by and enacted together in sociomaterial practices (a more elaborate description of this practice is presented in Paper 5). In this practice, the data is itself understood as "a constitutive force, working with and upon the researcher, as the researcher is working with the data" (Taguchi, 2012, p. 272). What emerges in this creative co-production are effects of being affected, where thinking and imagining exceed data and ourselves as researchers (Taguchi, 2012). When heterogeneity is allowed to speak, imaginatively, the subjectivities involved in this co-production can be understood to multiply rather than always being reduced to a negative difference from the "other."

From data to stories

When I began to work up my data and to write articles, my approach was highly influenced by the techniques taught in PhD courses on qualitative methods. In these forums, a method that was commonly presented as legitimate and effective for the analysis of interview material was the coding and categorizing of interview transcripts. This method was also frequently used in the research articles, ones published in top-ranked journals, that I read at the time. Its purpose is to assist researchers in using their intellectual qualities to categorize and bring order by means of concepts and other forms of representations. In creating categories of codes and connecting them to elements in a theoretical framework, researchers are able to express a discursive account, a linguistic figure, or an empirical event as a function of something other than itself, as a symbol or representation of that which some events have in common with others.

In analyzing my data in this thesis, I tried different kinds of coding techniques, including, at the beginning of my work, software such as Nvivo and Atlas. This approach, however, left me with the impression that there was too much technology between me and the data, as if the software prevented me from “feeling” it or approaching it imaginatively as discussed above. Moreover, I did not experience the need for advanced coding software. My analytical process never began at my desk, in front of my computer, but in the field, with a reflection during an interview or with an association or idea that came to me while I was observing the operational practices. In the course of transcribing the interviews, reading my field notes, reviewing the literature, and in discussions with colleagues, I found that reflections, feelings, associations, and ideas developed into stories and potential contributions. When I was beginning to form my analysis into articles, Excel proved to be a useful tool, as it helped me to code passages of text and then, with the sort-and-filter function, to group all passages by code. I was then able to write stories about/within each code. Thus, for example, when observing the operations in the current reception area at the reception unit of the Migration Board, I made the note, “applicant approaches the counters without a queue ticket—feels comfortable, welcomed—customer?” This observation/association triggered my interest because it revealed a contrast with the operations in the old reception area (located in a former police station) in terms of the ways in which applicants were positioned in this practice. A story began to form in my mind about an applicant who went from being enacted as a “potential safety threat” to being enacted as a “customer” or guest entering a hotel. As I read through the transcripts and my notes in Excel, I coded passages that highlighted contrasts or similarities between the practices of the old and the new reception as, for example, “service,” “customer,” or “safety threat.” This coding practice enabled me to structure my data and to begin writing stories, for example, about the applicant’s journey “from criminal to customer.”

Co-authoring papers

It is my perception that, throughout the work on this thesis, I have been able to follow my own curiosity, without anyone pushing me in a certain direction: I have been able to make this thesis *my thesis*. At the same time, I have also

had the opportunity to collaborate with people who have inspired me and whose views, ideas, values, strategies, and vocabularies I have learned from and made my own. The decision to write articles was a result of my exploratory research approach. I had begun to write one paper already in the fall of 2012, during the first term of my PhD program, and I submitted it as a conference paper to EGOS the following spring. Since then, writing papers has proved to be the most effective method for me to process, experiment, and develop understandings of my work. There have been many ideas, outlines, extended abstracts, and drafts, most of which have not found a place in the five articles that comprise this thesis; indeed, most were quickly discarded in my quest for the “right” approach.

Four of the five papers in this thesis are written in collaboration with one or more co-authors. To be specific, the first, second and the third papers are the product of collaboration with my supervisor, Magnus Mähring. For these papers, I alone have collected the data, developed the theoretical framework, and composed the first drafts. Then, in the development of the paper and through the review processes, Magnus has worked as an active sounding board, having read my drafts and provided comments and feedback on weaknesses, challenges, and possible ways forward. Many of the ideas discussed and ways in which we have framed the story and the contributions of the papers are thus the result of this collaborative effort; for while I have written almost all of the text, Magnus has served as a source of inspiration, a devil’s advocate, and strategic editor and thereby greatly facilitated the creative process. For the third paper, Magnus and I invited another member of my PhD committee, Lucas Introna, to assist us as a co-author after the paper had been rejected following a two-year review process. Lucas and I collaborated closely in the rewriting while Magnus served as the critical eye, questioning, encouraging, editing, and discussing possible directions. In writing Paper 4, I again collaborated with Lucas. After I had collected all of the data, developed a theoretical framework, and written a first draft, we, as before, worked together closely and intensely to rewrite the entire paper. The fifth and final paper I composed on my own, but the work benefitted significantly from feedback that I received from Magnus, Lucas, and the third member of my committee, Ulrike Schultze.

Chapter 5

Summary of articles and contributions

In section 4, I explained the onto-epistemological assumptions and practices which have guided my work in pursuit of creative, responsible research. In this section I briefly review each of the five research papers constituting this thesis. I then conclude with a general discussion of the summarized research contributions.

Paper 1: Visualizing institutional logics in sociomaterial practices

Hultin, L., & Mähring, M. (2014). Visualizing Institutional Logics in Sociomaterial Practices. *Information and Organization*, 24(3), 129-155.

The first paper presents findings from the longitudinal case study of the emergency general surgery ward at Nordic University Hospital described above. It combines sociomaterial and institutional logics perspectives, identifying Lean as an institutional logic constitutive of a larger institutional trend in the service and healthcare industry known as New Public Management (NPM). Although institutional logics are frequently seen as encompassing both symbolic systems of meaning and related “material practices” (Friedland & Alford, 1991; Thornton & Ocasio, 2008), much of the research in this area that refers to material aspects does so only in terms of structures and practices (Cloutier & Langley, 2013; Thornton et al., 2012) and not in the more specific terms of objects and technologies through which logics might become instantiated (Cloutier & Langley, 2013; Zilber, 2013). With a few recent exceptions (Baptista, 2009; Labatut et al., 2012; Mangan & Kelly, 2009;

Raviola & Norbäck, 2013), the role of information technology, and in a broader sense materiality, has been largely ignored in the discussion of the micro-foundations of institutional change. Moreover, scholars have suggested that a greater awareness of the imbrication (Leonardi, 2011) and entanglement (Orlikowski, 2007) of materiality within institutional forms “could contribute to a richer understanding of the constitution, constraints, and affordances of institutional logics” (Cloutier & Langley, 2013, p. 364). In this paper, we seek to contribute to this understanding by exploring the micro-foundations of institutional logics from a sociomaterial perspective. In doing so, we use the concepts of affordances and constraints, which are central both to the institutional logics and to a sociomaterial perspective, in order to create an integrated framework that enables a deeper and more elaborate understanding of how and why affordances emerge in practice. We adhere to the view that affordances are rooted in a relational ontology. Following Stoffregen (2003), we define affordances as emergent “properties of the actor–environment system that determine what can be done” (Stoffregen, 2003, p. 124). From this perspective, an affordance is not a single attribute, property, or functionality of the technology artefact or the actor. Rather, it is a multi-faceted relational structure that is realized through the enactment of several mutuality relations between the technologies and the actor (Faraj & Azad, 2012; Lindberg & Lyytinen, 2013).

Our main research question in the paper concerns how visualization artefacts afford and constrain organizational change in institutionally complex contexts. More specifically, we are interested in two sub-questions:

- How do visualization artefacts become a part of the enactment of institutional logics?
- How do multiple institutional logics, enacted in sociomaterial practices, shape affordances and the individual focus of attention?

Our case reveals how the implementation, use, and development of various digital and physical visualization boards in the emergency ward direct the staff’s attention to particular features of the operations and provide occasions for them to make sense of the new Lean work practices. By focusing our analysis on how affordances emerge in sociomaterial practices, we show

the manner in which visual representations construct the operational reality so as to make the principles of Lean logic central to the staff's efforts to develop effective work practices.

Our study makes two contributions to the organization studies literature. First, we show how the perceived affordances of a technology are created from the experience of using several different technologies and how the rejection of one technology can simultaneously constitute another. Second, we show how visualization artefacts, entangled in sociomaterial practices, can shape the individual focus of attention and thus facilitate the integration of a new institutional logic into operational practice. By demonstrating how logics enter into the sociomaterial activities of actors, our work opens the “black box” of the workings of logics on the ground to shed light on the underlying mechanisms of the mutual constitution of competing institutional logics and sociomaterial entanglements. Thus, our study suggests that there is potential in mutually informing the research streams on institutional logics and sociomateriality. The influence of the practice turn in IS and organization research has inspired scholars working within the contexts of sociomaterial and micro-institutional foundations of organizing to transcend traditional dualisms of subject and object, of social and structure (Feldman & Orlikowski, 2011; Kellogg, 2009; Orlikowski, 2007; Zilber, 2002). Based on the results of this study, we argue that cross-pollination between the conversation within institutional theory on the role of embedded agency at the micro-level of organizing and the sociomateriality discourse within IS research can lead to important new insights into the mutual constitution of technologies and human action.

Paper 2: How practice makes sense in healthcare operations:
Studying sensemaking as performative, material-discursive
practice

Hultin, L., & Mähring, M. (2016). How practice makes sense in healthcare operations: Studying sensemaking as performative, material-discursive practice. *Human Relations*, 70(5), 2016, 1-28.

The second paper presents a study, based on ethnographic methods, of the emergency ward at Nordic University Hospital. Specifically, we observe the

sensemaking practices involving a digital visualization board, a so called “flow board”, aimed at supporting the Lean work principle of workflow balancing by continuously communicating the operational status of the ward to the work teams. Prompted by recent calls to theorize sensemaking as a materially embedded and relational practice (Cunliffe & Coupland, 2012; Holt & Cornelissen, 2014; Sandberg & Tsoukas, 2015), we set out to explore how a relational ontology, grounded in a post-humanist view (Barad, 2003, 2007) can help us develop an understanding of sensemaking that decenters the individual human actor and foregrounds the performativity of practices. Although recent research increasingly acknowledges that human subjects are embedded in a material environment and use material artefacts as props or tools in their sensemaking (e.g., Korica & Molloy, 2010; Oborn, Barrett, & Dawson, 2013; Stigliani & Ravasi, 2012;), humans in this work typically remain at the center of this process as the origin of agentic action and the prime authors of meaning and identity. Drawing on Barad (2003, 2007), we on the other hand assume an entangled relationship between “the social” and “the material” and also assume agency to have neither origin nor spatial direction but to flow temporally in circular movements through practices. In order to account for actions and enactments of the entangled (human) subject without centering her as the origin of agency, we employ the concept of subject positions (Barad, 2007; Butler 1993, 1997a; Foucault 1982).

In assuming material-discursive practices as our starting point, we refrain from grounding our analysis in a world already divided into subjects and objects, social and material, meaning and discourse. By viewing agency as not belonging to any one actor but rather as a circulating flow through material-discursive practices, we focus our account on the temporal unfolding of these practices and on how certain actions condition the possibilities for other actions. In the process, the question of “who?” (in the being sense; who is acting, talking, and making sense) becomes backgrounded, while the question of “how?” (how certain ways of acting and talking become enacted as appropriate and legitimate in certain situations) becomes foregrounded. We show the ways in which the actions of making some operational realities (such as the number of patients waiting in and passing through the emergency ward) visible and other realities (such as the differing needs of patients and the

complexity of their conditions) invisible condition other actions by positioning the members of the care team to think and act in certain ways.

Rather than understanding the subject of the sensemaking process by assuming an identity working as a lens through which the subject makes sense of the world (Ashforth & Mael, 1996; Patriotta & Spedale, 2009; Pratt, 2000; Weick, 1995), the notion of subject positions allows us to understand the subject in terms of positions enacted in material-discursive practices from which she can achieve and reproduce intelligibility, that is, act and become enacted as sensible. Based on this understanding, material artefacts are neither “sensemaking resources” (Gephart, 1993; Stigliani & Ravasi, 2012) nor “sensemaking devices” (Oborn, et al., 2013) supporting the human, who consequently becomes enacted as the primary source of meaning. Rather, material artefacts are constitutive of the material-discursive practice that conditions the acts and enactments of sensible actions and beings.

Our study contributes to the body of research that seeks to move sensemaking theory beyond an anthropocentric view (Cunliffe & Coupland, 2012; Korica & Molloy, 2010; Oborn, Barrett, & Dawson, 2013; Stigliani & Ravasi, 2012) by showing how that which makes sense can be understood as a material-discursive practice and related subject positions that, owing to their specific positioning in the circulating flow of agency, emerge as sensible—“sensible” here referring to the ways in which this practice and the subjects engaged in it become enacted as legitimate and reasonable. From this perspective, every actor is not only making sense but is also already being made sense of, positioning and being positioned, in the flow of agency. In embracing this view, our study also responds to the critique of sensemaking as episodic by positioning it as the product of a continuous or ongoing process (Gephart, Topal, & Zhang, 2010; Maitlis & Christianson, 2014; Weick, 2012).

Paper 3: The decentered translation of management ideas:
attending to the performativity of sociomaterial practices

Hultin, L., Introna, L., & Mähring, M. (2017). Submitted to *Organization Studies*

The third paper is based on a longitudinal study conducted at an Examination Unit of the Swedish Migration Board. Specifically, we account for how

the management idea of Lean has become translated into everyday operational work practices.

Following the practice turn in organization studies (Feldman & Orlikowski, 2011; Lounsbury, 2008; Schatzki et al., 2001; Whittington, 2006), researchers have called for attention to the situated, distributed, and material nature of everyday work practices in the reproduction and transformation of organizations and/or institutions (e.g., Carlile et al., 2013; Jones et al., 2013; Jones & Mazza, 2013; Lawrence et al., 2011; Lounsbury & Crumley, 2007; Lounsbury, 2008; Monteiro & Nicolini, 2015; Zilber, 2016). However, in reviewing the literature on translation of management ideas, it became clear that the literature grounded in both Scandinavian institutionalism (Czarniawska & Joerges, 1996; Czarniawska & Sevo'n, 2005; Sahlin-Andersson, 1996) and in actor-network theory (ANT) (Callon, 1999; Latour, 2005; Law & Hassard, 1999) tends to foreground individual human actors—such as managers (Kelemen, 2000; Waraas & Sataoen 2014), middle managers (Spyridonidis, 2016), project managers (Morris & Lancaster 2005), corporate executives (Bergström & Diedrich, 2011; Özen and Berkman 2007), institutional entrepreneurs (Czarniawska, 2009), change agents (Mueller & Whittle, 2011; Whittle et al., 2010), and management gurus (Bruce & Nyland, 2011)—as the significant actors doing the translation work by negotiating, mediating, editing, and reshaping abstract ideas to fit local contexts.

Despite the shared grounding of both of these strands of research in the work of Latour (1984, 1987, 1994), accounts of how “the social” and “the material” entangle, as management ideas become translated, are, remarkably, lacking in the extant literature. This gap in the literature is problematic because, as the translating agency is enacted within or in the movement between primarily human actors, the flow of everyday work practices through which these actors are performatively conditioned to act in certain ways and in which the management idea is performatively conditioned to assume certain meanings become backgrounded. This backgrounding, in turn, risks producing an understanding of the management idea as a phenomenon distinct from its situated enactment, capable of impacting organizational practices only to the extent that influential human translators allow and facilitate its ongoing translation. Moreover, as the translating actors become foregrounded and separated from the very sociomaterial practices that enact

them (Orlikowski & Scott, 2008), the opportunity is missed to account for the ways in which these actors are, themselves, also translated in and through this practice.

In line with Latour's observations (Latour, 1996, 2004), we suggest that the tendency to center the human and to ascribe to her translating agency is partly the result of the language of ANT, which emphasizes actors, mediators, networks, and associations and, as such, participates in the production of actor-centric accounts of translation. In order to reorient our attention and capture the emergent, situated, distributed, and performative nature of translation processes, we have proposed a shift to the language of Ingold (2007, 2015). This move foregrounds the performative flow of practice through which actors and action emerge and continually become translated and transformed as practice inherits conditions of possibility from prior actions and imparts conditions of possibility to subsequent actions. Adopting this new vocabulary, then, catalyzes a shift in emphasis from the assembly of actors into networks to the interweaving of performative lines of flow in and through what Ingold calls the "meshwork" (Ingold, 2011, 2015).

In our analysis, we focused on three operational practices that encompass what Lean has become, as enacted in daily operational practices of the Swedish MB, and traced their genealogy. In so doing, we showed how the performative flow of these practices positioned subjects and objects in ways that rendered certain modes of being and acting to be taken, or accepted, as more meaningful, obvious, and legitimate than others.

Our study contributes to the literature on translation of management ideas by showing how a shift to a language that is not actor-centric enables us to background the interests, strategies, and actions of individual human actors, and account for how the idea of Lean becomes translated through the performative enactment of mundane everyday work practices. The foregrounding of the performativity of sociomaterial practices enables us to understand the management idea, not as a distinct phenomenon, transforming organizational practices only to the extent that influential human translators and supporting or agentic material artefacts allow and facilitate its ongoing translation. Rather, our account shows how, along the lines in the meshwork, all the assumed sociomaterial actors (human and non-human alike) become

simultaneously translators and translated by becoming differentially positioned in the performative flow of sociomaterial practices. In addition, our study answers recent calls for cross-pollination between the diverse theoretical approaches to study translation within the organization and management discipline (O'Mahoney, 2016; Wæraas & Nielsen, 2016;). By identifying common ground between ANT studies and studies drawing on Scandinavian institutionalism, we show how both these streams can gain valuable insights from adopting a vocabulary that brings to the fore a decentered view of translation.

Paper 4: Hey, you there! Studying identity work as a process of material-discursive interpellation

Hultin, L., & Introna, L., (2017). Submitted to *Organization Studies*

The fourth paper is based on fieldwork conducted at a reception unit of the Swedish Migration Board (SMB). Drawing on observations, interviews, and archival data, the study is situated in the material-discursive practices at three different sites: the old reception area, which was housed in a former police station; the current reception area, which is housed in an office building; and the new national service centers that have started to replace reception sites across the country. Taking into account the growing stream of research on identity work and identity regulation, we examine how the subjects of the case officer and the asylum applicant become enacted differently at these three sites.

As part of efforts to move away from reductionist and essentialist conceptions of identity and embrace a more dynamic and relational view, the notion of identity work (and the governing of such identity work) has given rise to a significant and sustained research effort. Rooted in Foucault's view of subjection as a process through which regulatory power both acts on the subject and enacts the subject into being (Brown & Coupland, 2015; Nicholson & Carroll, 2013; Thornborrow & Brown, 2009), studies of identity work and identity regulation have advanced our understanding of how individuals work to shape a relatively coherent and distinctive personal self-identity in their context of other people, cultures and discourses (Watson, 2008). This

work has been criticized, however for its focus on “talk” and “texts” in attempting to account for how individuals make sense of their own identities or contribute to the construction of others’ sense of self (Bardon et al., 2013; Paring et al., 2017; Rennstam 2012; Symon & Prichard, 2015). It has been argued that a narrow definition of discourse as text tends to limit and obscure the degree to which identity work also draws on, or is governed by, the situated material arrangements of daily work practices. As a result, a number of scholars have called for studies that consider the ways in which material-discursive arrangements work to produce the conditions of possibility for the enactment of particular subjects (Alvesson et al., 2008; Bardon et al., 2013; Paring et al., 2017; Symon & Prichard, 2015). Specifically, some previous research has encouraged scholars to explore the role of materiality in the regulation of identity work from the perspective of a performative relational ontology (Paring et al., 2017).

In responding to this call, we locate ourselves within the performative tradition in which agency is not attributed to individual actors, but rather continuously flows through practices and constitutes the conditions of possibility for the subject to act (Butler, 1993) by positioning her specifically and differently in the ongoing flow of agency. Specifically, we draw on Louis Althusser’s (2006a, b) and Judith Butler’s (1990, 1993, 1997) theory of subject formation as a performative process of interpellation. In accepting Althusser’s view of discourse (or, in his terms, ideology) as the actions and behaviors of bodies governed by their disposition within material apparatuses, we provide an account that contributes to the development of a decentered, post-structural, post-humanist understanding of how identities are “worked” in and through mundane organizational work practices.

Our analysis shows how the different positions through which the officer and the applicant become enacted at the three service sites are not only the result of managerially defined roles and scripts (Alvesson and Willmott, 2002), nor of the work performed by these individuals in forming, repairing, maintaining, strengthening, or revising their identity constructions (Sveningson & Alvesson, 2003). Rather, we show how the differences among these sites lie in the conditions of possibilities provided in different subject positions that are enacted in the repeated flow of material-discursive practices. In other words, we show how the agency regulating and doing the identity

work is not necessarily located *within* actors (be that managers, employees, material objects, etc.) but rather in the performative flow enacted in and through the material-discursive practices that position the individual to think and act in certain ways.

Our study thus contributes to extant literature on the regulation—or one might say governing—of identity work by foregrounding the situated, material-discursive, and performative nature of such work. Specifically, through the notion of hailing (Althusser 2006a, b; Butler 1990, 1993, 1997), we show how the relationships among individual humans and the material objects and technical artefacts that surround and engage them in everyday work practices can be understood, not just as an interaction among separate and distinct beings in which the intentional and interpretive human has a privileged position, but as an ongoing flow of material-discursive practices that performatively enact the subjects and objects that it purports. Moreover, our account contributes to research on identity work in terms of methodology by showing how observations of real-time situated practices and studies of photographs and other images allow us to shift our attention away from the actions, or the work, performed by human actors, to the conditions of possibility provided by the flow of the material-discursive practices for the implicated subjects to be and act in certain ways.

Paper 5: From criminal to customer: a post-humanist inquiry into processes of subjection at the Swedish Migration Board

Hultin, L., (2017). To be submitted to *Qualitative Inquiry*

In the fifth paper, I focus on methodology in order to explore what it means to be a researcher in a world assumed to lack distinct and stable boundaries between the social and the material, subject and object, knower and known, and, consequently, between researcher and researched. This representational divide is prevalent in most humanist inquiries, but it is increasingly being challenged by researchers who deny that the bounded, rational, coherent subject is the underpinning or author of all activity and instead are producing accounts of experience that emphasize multiplicity, fluidity, diversity, and mobility (Feldman & Orlikowski, 2011; Tsoukas & Chia, 2002). In these ac-

counts, the human-material relationship is not limited to a dualistic interaction. Rather, the relationship is one of entanglement, in which the human and the material are, not pre-formed substances, but performed relations (Orlikowski & Scott 2008). In this paper, I explore the question of what this ontological position means for the researcher going out into the field or working to formulate her insights for a journal article by drawing on my own experiences conducting a qualitative longitudinal case study at the Swedish Migration Board. Specifically, I explicate how the meetings among me, the organizational practices that I have studied, and the methods that I have used to collect and analyze data produce different kinds of knowledge. In particular, I point to differences in the kinds of knowledge that humanist, representational, and post-humanist epistemological practices grounded in an ontology of becoming produce regarding the formation of the subject or, in this case, the subjects working in and visiting the reception area of the SMB.

I conclude the paper with a discussion of three shifts in attention that the findings have identified. The first is from spatial interactions to temporal conditioning. Specifically, I suggest that moving beyond dualistic accounts of “the human” and “the material” in processes of subjection implies a move away from identifying actors and their actions and interactions spatially, to viewing subjects and objects as positions enacted within the temporal agentic flow of practice. In following the temporal flow, our understanding of how subjects are formed itself transforms from a process in which the source of meaning and subjectivity is expected to be found somewhere either beneath a surface of expressions or above in some institutional or social discourse to a performative process constituted by the temporal flow of agency through sociomaterial practices.

The second shift in attention that I have identified is from centering of human action to the performativity of sociomaterial practices. If the performativity of this flow is to be followed and understood, it is, I have argued, insufficient, or perhaps better formulated, insufficiently creative, to rely on the accounts that people give in interviews or on the recordings of verbal interactions in the field. To move beyond a human-centric approach, I suggest striving to attend to things that at first seem peripheral and irrelevant and inviting as many and as diverse actors as possible to participate in the

creative process of doing research and to account for how they come to matter, to affect. In this account, materialities do not constitute a part of the representation through the discursive accounts of the human, nor are they props or tools with which the agentic human may construct meaning; rather, they are constitutive of the performative process through which subjects become positioned to be and to act and to use materialities in the particular ways in which they do.

The third shift in attention is from analytical reduction to intuitive expansion. In order to avoid locating agency in any one actor and instead to follow it temporally, I suggest that researchers must position themselves as something other than merely always already subjects and the organizational phenomena under study as something other than always already objects. In Bergson's terms, researchers must insert themselves in the object by an effort of imagination (Bergson, 1999) in order to feel the movement of practices (rather than the actors) from within; they need to ask how the subject and object of study and they themselves become enacted together in socio-material practices. Approaching "data" in this way can help in the processing of small but consequential differences as they emerge and to develop a sensitivity to and a contact with phenomena that are not trapped in categories and measurement but are instead experienced in ways that are richer and more intimate. In other words, it helps us to see an event, subject or object, not in terms of what it has in common with others of its kind, but in its unique becoming.

By challenging methodological obligations and the need for "data" to conform to technical requirements, and by experimenting with various epistemic practices grounded in an ontology of becoming, this paper contributes to the development of practices that allow for greater sensitivity to how organizational realities and experiences of them are sociomaterially configured and to act (or, rather, intra-act) more creatively and responsibly with/in the world as researchers.

Table 5. Summary of papers

	Paper 1: Visualizing Institutional Logics in Sociomaterial Practices	Paper 2: How practice makes sense in health-care operations: Studying sensemaking as performative, material-discursive practice	Paper 3: The decentered translation of management ideas: attending to the performativity of sociomaterial practices	Paper 4: Hey, you fifty work as a process of material-discursive interpellation	Paper 5: From criminal to customer: a post-humanist inquiry into processes of subjectification at the Swedish Migration Board
Contributions	<p>This paper shows how the perceived affordances of a technology are created from the experience of using several different technologies and how the rejection of one technology can simultaneously constitute another.</p> <p>We show how visualization artefacts, being entangled in sociomaterial practices, can shape the individual focus of attention and thus facilitate the integration of a new institutional logic in operational practice.</p>	<p>This paper advances sensemaking theory beyond an episodic, anthropocentric understanding by showing how that which makes sense can be understood as a material-discursive practice and related subject positions, that, owing to their specific positioning in the circulating flow of agency, emerge as sensible.</p>	<p>This paper shows how a shift to a language that is not actor-centric enables us to background the interests, strategies, and actions of human actors, and account for how the idea of Lean becomes translated through the performative enactment of everyday work practices. In accounting for the performative flow of sociomaterial practice, we show how all the assumed sociomaterial actors become simultaneously translators and translated by becoming differentially positioned in this flow.</p>	<p>This paper contributes to the development of a decentered, post-structural, post-humanist understanding of how identities are "worked" in and through mundane organizational work practices. Specifically, the conception of the intentional human and the non-intentional non-human is abandoned in order to foreground the manner in which mundane material-discursive practices always and already condition (or govern) the possibilities within which identity work takes place.</p>	<p>This paper shows how knowledge about the formation of the subject becomes differently produced through humanist, representational, and post-humanist epistemological practices. This paper contributes to the development of practices that allow us to be more sensitive to how organizational realities, and our experience of them, are sociomaterially configured.</p>

Table 5 (continued). Summary of papers

Paper 1: Visualizing Institutional Logics in Sociomaterial Practices	Paper 2: How practice makes sense in health-care operations: Studying sensemaking as performative, material-discursive practice	Paper 3: The decentered translation of management ideas: attending to the performativity of sociomaterial practices	Paper 4: Hey, you there! Studying identity work as a process of material-discursive interpellation	Paper 5: From criminal to customer: a post-humanist inquiry into processes of subjectification at the Swedish Migration Board
Case organization	Nordic University Hospital	Nordic University Hospital	Swedish Board of Migration	Swedish Board of Migration
Current state	Published in <i>Information & Organization</i> , 2014 Runner-up, 2014 Best Paper Award, <i>Information & Organization</i>	Published in <i>Human Relations</i> , 2016	Submitted to <i>Organization Studies</i>	Submitted to <i>Organization Studies</i>

Chapter 6

Concluding discussion

Understanding how sociomateriality matters by assuming a process ontology and a process oriented language

Over the past two decades, the field of organization studies has witnessed dramatic shifts in terms of the conceptualization and understanding of organizational change, from a view of change as a response to demographic, economic, social, and political forces, to an understanding of it as a contingent, embedded, and dynamic process (Feldman, 2000; Hernes & Maitlis, 2010; Orlikowski, 1996; Orlikowski, 2000; Shotter, 2006; Tsoukas & Chia, 2002). Yet although the multifaceted and dynamic nature of organizations has received some attention, organizational change continues, for the most part, to be depicted as a human endeavour (Carlile et al., 2013; Orlikowski, 2010; Orlikowski & Scott, 2008).

Grounded in a relational ontology, streams of research in science and technology studies (STS), actor-network theory (ANT), feminist and science studies, and, most recently, sociomateriality have opened up new avenues to explore the dynamic, uncertain, and technologically permeated world (Barad, 2003, 2007; Haraway 1997; Latour, 1988, 2005; Orlikowski, 2007; Scott & Orlikowski, 2014; Suchman, 2007). The radical nature and novelty of these approaches has drawn criticism, however, from a research community that has seemingly failed to appreciate fully the possibilities for intellectual expansion that these approaches represent (Leonardi, 2013; Mutch, 2013). As discussed in chapter 2, one reason for this failure is an actor-centric vocabulary

that performatively enacts actors and their relationships spatially, that is, in the co-constitutive movement of agency between them (Latour 1996, 1999; see also Paper 3). As this vocabulary has only allowed for the enactment of distinct actors, the assessment and critique of relationally-grounded approaches, such as sociomateriality, have been based on the being ontology that it rejects (Cecez-Kecmanovic, 2016). Thus, for example, discussions of these issues have often been concerned with the importance and distinct nature of the material and its relation to the social, with the result that accounts drawing on sociomateriality have been critiqued for their supposed failure to define the material (its “intrinsic properties”) and to explain entanglement. (Leonardi, 2013; Mutch, 2014).

In this thesis, I propose a shift away from a spatially-oriented vocabulary (“actor,” “network,” “connection,” “association,” and so on) to one that allows for the decentering of the human as the primary agent responsible for translating management ideas, making sense of new work practices, integrating institutional logics, and conducting identity work, as well as for attention to the constitutive role of materiality in these processes. Rather than focusing on actors and their relational associations, I have studied how actors emerge as positions within a temporal, performative, material-discursive flow of agency. By drawing on work grounded in a process ontology (Althusser, 2006a,b; Barad, 2007; Bergson, 2002; Butler, 1993, 1997; Ingold, 2007b, 2015; Latour, 1999, 2013), the articles in this thesis contribute to the stream of research attempting to move beyond essentialist assumptions of the human-material relationship by showing how concepts and notions grounded in a process ontology enable us to show what is unique with a sociomaterial approach. A few studies have demonstrated the ontological kinship and shared roots of relational ontology and process metaphysics and pointed to a clear overlap in terms of assumptions and orientations (Cecez-Kecmanovic, 2016; Introna, 2013; Shotter, 2006). The papers in this thesis build on and extend this work by showing how a process-oriented vocabulary enables researchers to account for the entangled relationship between the social and the material in a way that constitutes a radical departure from an ontology of being and that, moreover, in fact makes a difference in terms of how organizational realities are understood. Thus, our accounts contribute to the understanding of the significance of differences in ontological

assumptions so that researchers from different disciplines can engage in more constructive conversations.

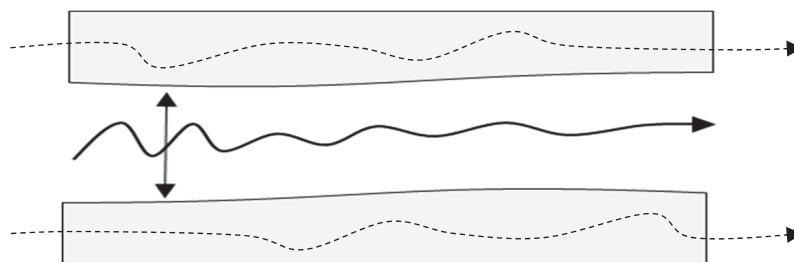
What a sociomaterial approach grounded in a process ontology enables us to see

To clarify the difference between organizational realities (re-)produced through a spatially-oriented vocabulary and the temporally oriented vocabularies adopted in the articles of this thesis, I will use Ingold's (2015) metaphor or image of a flowing river. Figure 3 illustrates a river flowing between two banks. In using a spatially-oriented vocabulary to follow actors and their relational interactions in a network, one would begin with the riverbanks and then imagine and study how practices would connect these banks in order to allow for interaction and how they would be transformed and translated co-constitutively through such interactions. As discussed in chapter 2 and in the papers in this thesis, research in organization studies often foregrounds the actions of managers, consultants, change agents, or institutional entrepreneurs and explores how they more or less intentionally and skillfully translate (Bergström & Diedrich, 2011; Bruce & Nyland, 2011; Czarniawska, 2009; Mueller & Whittle, 2011; Spyridonidis, 2016; Whittle et al., 2010), give and make sense (Korica & Molloy, 2010; Oborn, Barrett, & Dawson, 2013; Stigliani & Ravasi, 2012), or perform identity or institutional work (Brown & Lewis, 2011; Clarke et al., 2009; Thornborrow & Brown, 2009; Costas & Grey, 2014; Ibarra & Barbulescu, 2010; Toyoki & Brown, 2014), by negotiating, enlisting, influencing, or working on each other, sometimes with the help of material mediators or boundary objects (Jones & Mazza, 2013; Nicolini et al., 2012). The tendency, then, is to study the constitutive interactional movement between the assumed actors, represented by the banks of the river.

Among the issues addressed in this thesis are why this state of affairs is problematic and how the assumption that the social and the material are ontologically entangled can assist in understanding organizational change. In both cases, the key notion is agency. Change requires agency; and separating the human from the material leads researchers to locate agency within these ostensibly distinct actors. Humans have agency and thus can act to change

organizations. Agency might also be ascribed to materiality, bringing with it the capacity to transform. By locating agency within actors and by centering these actors in our accounts of how organizations change, we enact an understanding of change as a process that can be planned, controlled, and monitored, so that humans are responsible for change and for its absence (Barad, 2003, 2007; Ingold, 2007b). Knowing where agency is located allows for its mobilization to serve specific purposes. If, for example, agency is assumed to be inherent in the case officers at the Migration Board, they can be told, “change your practices”; “you need to be more service-oriented when meeting with applicants”; “you need to increase your efficiency.” It makes sense to define a normative position and to expect the officer to work against it when she is assumed to own the agency to decide how to act and who to be. The officer is someone who understands her subjectivity and thus can decide to become a different subject. As discussed in chapter 2, in ascribing the agency to make sense, translate, or to regulate or work on identities to individual actors, we forfeit the possibility to account for how these actors are always and already made sense of, translated, regulated or ‘worked on’ by being positioned in certain ways in the performative flow of sociomaterial practices.

Figure 3. Agentic flow, between and in-between



By contrast, beginning with a process-oriented language of flow, lines, meshwork, and positions along the line, it is possible to jump into the water of the river and flow with the stream of life that is already going on, as it moves,

not between, but in-between the river banks, now taken as also already flowing along. This movement enables a world to be traced in which actors (all things) are not constituted through their connections, but where everything and everyone is always and already on the move, continuously being and becoming this movement (Ingold, 2015). The direction of the flow is not the result of an agency that is distributed around separate actors in a network, but rather of an agency that becomes enacted in movement, along and in between the interweaving of lines. In following the agentic flow in-between the river banks, concretely and actually, it is possible to find movement, but no actual entities that move—such as managers, consultants, entrepreneurs, or change agents—as bounded beings, enlisting, negotiating, or enacting. What is seen is not only evidence of the doings and interactions of humans and non-humans, but also the material-discursive performative flow that conditions these actors to be and to act in the ways in which they do.

In following the agentic flow in-between the river banks, we do not take away from the human her agency to act and change. However, we assume that the source of agency is elsewhere, that her acts and subjectivity have already been conditioned by the historically contingent ways in which agency has flowed through material-discursive practices. In other words, the way in which the individual understands herself has already been conditioned through the ways in which this flow has positioned her within material-discursive practices. For example, when the officers of the Migration Board plan their work in accordance with the standardized production target of three cases per week, when they interview the applicants based on a standardized protocol, or when they assist the applicants across the open reception counters, they enact agency. This agency is not, however, an product of these individuals, but has rather already been conditioned by the ways in which material-discursive practices have unfolded and performatively repeated themselves over time. The agency exercised in a meeting across an open counter, therefore, and the subjects engaged in this meeting alike, are performative enactments. This means that they are not simply officer and applicant, bounded beings with defined roles and inherent characteristics. Rather, they are experts, flexible service providers or standardized production resources, depending on the ways in which they have become positioned in the historically contingent material-discursive flow of practices. Likewise, the

“flow nurse” at the emergency ward who encourages the practice of signing patients off to other wards before diagnosing them in order to free up space and meet quantitative production targets does not do so because she has made sense of this practice as the most appropriate one. Rather, measures that increase flow efficiency emerge as sensible to the flow nurse because she is positioned in a circulating flow of agency through material-discursive practice that has already enacted this increased efficiency as sensible. As my co-author and I show in Paper 2: “the sensible practice enacts the sensible subject, or, in other words, material-discursive practices produce positions for the subject from which the meaning already purported in these practices makes sense” (p. 172).

The important consequence of this conclusion for studying organizational change is that the understanding of where and how change is possible itself changes. In following the flow of agency through material-discursive practices, we see agency, and thus, the possibility for change, not only as exercised in individual attitudes, commitments, goals, visions, values and beliefs, nor in the individual or collective ability to solve problems, develop a culture, communicate effectively, formulate a strategy, or engage employees in active participation tactics that foster learning by doing. Rather, by assuming an agency that flows through material-discursive practices, we see that change is very subtle, and that it does not start, and is not only possible, within humans. Change happens in the visualization of a red field on a “flow board,” in the scheduling of an examination meeting in Outlook, and in the meeting across a reception counter. In following the flow of agency, we see how change is possible always and everywhere but how this possibility is conditioned by the temporal performative flow of material-discursive practices. Thus, this thesis shows, not only how matter matters in the construction of sensible, meaningful, and legitimate work practices, but also how material-discursive processes of translation, sensemaking, identity work, and institutionalization emerge as processes that happen to the subjects, both doing and undergoing action (Ingold, 2016). Thus, adopting a sociomaterial perspective grounded in a process ontology does not mean that the material is foregrounded at the expense of the human; the “material turn” does not have to imply a turn away from the human. On the contrary, by refusing to

assume that human beings have fixed boundaries (and consequently not reducing them to such boundaries) or that they act detached from material arrangements but instead following the temporal, performative flow of material-discursive practices, it is possible to study the human subject as she continuously becomes, entangled within and conditioned by the flow of material-discursive practices.

From this perspective, responsibility does not begin and end with an intentional subject destined to reap the consequences of her actions (Barad, 2007). In the performative flow of material-discursive practices, responsibility cannot be ascribed only to a manager, officer, doctor, nurse, or researcher. This is not to say that persons functioning in such capacities cannot be held accountable for their actions. On the contrary, it means that their responsibility exceeds their own actions and implies the ability to be responsive to the possibilities of becoming in each moment. It means an attentiveness to and an ability to contest and rework what matters and what is excluded from mattering (Barad, 2007). It requires that we attend to and question that which is taken for granted and show how possibilities for becoming are re-created in each meeting, in each intra-action (Barad, 2007).

In sum, the articles in this thesis contribute to organizational theory by decentering the human as the primary agent responsible for and capable of change and by showing how we can understand and critically scrutinize the material-discursive conditions of possibilities performatively enacting certain practices, subjects and objects as legitimate and eventually taken for granted. Moreover, we show how assuming an ontology of becoming allows us as researchers to be responsive to our own entanglement in material-discursive practices because, since nothing ever is, but continuously becomes, everything can and, I argue, should be questioned, including our own onto-epistemological research practices. Assuming an ontology of becoming allows us to attend to how our intra-actions with theories of institutional logics, sense-making, translation of management ideas, and identity work enact normative, taken-for-granted assumptions, practices, and positions. By then challenging these normative enactments and by working through alternative concepts rooted in an ontology of becoming, the articles in this thesis extend our understanding of what these theories can do in the creative co-construction of organizational realities.

Where do we go from here?

The articles in this thesis draw inspiration from research in various fields, including information systems, anthropology, and gender studies. Going beyond the organization studies literature has been valuable in helping me to “borrow” and to make use of a vocabulary that is not taken for granted (that is, one not bound to a being ontology) and therefore does not performatively reproduce phenomena (organizations, subjects, objects, ideas, etc.) as given entities. Future studies could similarly identify, and experiment with, further useful vocabularies from other disciplines. It would be particularly interesting to explore the extent to which a broader set of process-oriented notions (such as flow, lines, and along) could curb the tendency to “thingify” and enable an accounting for the subtle ways in which organizational phenomena become performatively in the temporal and sociomaterial flow of practice.

A large part of both process-oriented research and studies that assume a sociomaterial perspective is conceptual in nature, and much effort has been expended to clarify underlying ontological assumptions and their significance for organizational phenomena. Relatively few studies have focused on showing how these assumptions actually matter and make a difference in practice, so further empirical studies could investigate how the assumption of agency as a temporal, performative flow (and the adoption of a vocabulary that enacts it as such) and of the social and the material as entangled has the potential to alter or deepen the understanding of organizational phenomena.

Sociomaterial studies could also engage with a broader audience, for the discussion has primarily taken place within the field of information systems. Thus, for example, application of a sociomaterial perspective could prove fruitful within the field of critical management studies (Spicer et al., 2009; Wilmott, 1992). As recent research has pointed out, many studies within this tradition have focused on a narrow definition of discourse as text and largely ignored materiality in their critical analyses of management and various management functions (Bardon, 2012; Cabantous et al., 2015; Gond et al., 2015). In a society in which organizations are becoming increasingly embedded in complex networks of digital technologies and, as a consequence, the boundaries of traditional institutions and categories, such as public/private and citizen/customer, are relaxing, there are numerous ethical issues regarding

privacy, trust, equality, and justice that a critical management lens, grounded in a sociomaterial perspective, has the potential to bring into focus.

Finally, it would be valuable if future studies continue to explore the implications of adopting a sociomaterial perspective in the context of epistemic research practices. In order to challenge methodological obligations and increase diversity in the set of methods applied in research inquiries, there is a need for more experimental accounts that transcend dualistic conceptions of reality.

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