Ship in the Storm
(Un)safe work practices at the Antwerp Port Authority

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Appendix
In the final phase of writing this thesis something remarkable happened. As I was watching the TV-news I came to know about an accident with tower cranes in Alphen aan den Rijn, the Netherlands. During construction activities a huge part of a bridge was supposed to be placed back on its place when two tower cranes fell down on a number of houses and shops. The ravage was huge. By a miracle, nobody died or got injured. However, the question arises how this accident could happen. It immediately make me think of my study in the port of Antwerp. Not necessarily because accidents with cranes happened there as well, but rather because of the noteworthy sequence of events that form the preliminary phase of such an accident. From tragic disasters such as the nuclear explosion at Chernobyl and NASA’s Challenger launch decision, it appeared that incidents are rarely caused by one technical error or human decision solely. Indeed, organizational issues around safety and safety culture inspired my choice for the topic of this study.

I am grateful to the people of the Antwerp Port Authority, who have given me the opportunity to do my research at their organization. Special thanks to William Willems, who supervised me during my research at the Antwerp Port Authority. Also, I want to thank the entire team of the Interne Dienst Preventie & Bescherming, who arranged all kind of practicalities for me.

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Marie-Claire Troost
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Introduction

A port is a location on a coast or shore containing one or more harbors where ships can dock and transfer people or cargo to or from land. Since ports throughout history handled every kind of traffic, support and storage facilities vary widely, may extend for miles, and dominate the local economy.¹

A changing port sector: automation

Ports are vibrant worlds of ships, containers and tough port laborers. At least this has been the holy trinity that inspired our imagination for decades. Ships and port labor date all the way back to ancient times. The port of Alexandria, for example, was built in 331 BC by Alexander the Great to service coastal shipping and supply the local region.² Compared to ships and port labor, containers are a relatively recent phenomenon. They entered the world of transport only in the 1960s, yet they caused for a huge revolution in the port sector. Trans-shipment became way faster, efficient and cost effective. Also, it had led to the worldwide standardization of the loading and unloading of ships.³

Today, the world of ports is being rocked by other gradual, yet radical changes. It is assumed that automation forms the magic spell in the future of ports. The Port of Rotterdam, for example, is already experimenting with the implementation of smart technologies that make port labor redundant.⁴ Once being the world’s biggest port, it now aims at being the world’s smartest port by means of creating hubs for logistics and information. Within these hubs, every element - cranes, trains, containers, weather stations and ships - is ‘talking’ to the other elements. With these hubs, port activities such as loading and unloading will become faster and more efficient and profitable. It sounds like science fiction, but in the near future it might be daily reality.

It is a noticeable situation that ports are absolutely vital for many economies, but that port laborers do not appear to benefit from this.⁵ Indeed, the question arises whether port laborers will still have a role in ports in the future, or that they will have been reduced to nothing more than a risk factor. It is no wonder that port laborers are watching the development of increasing automation sorrowfully. Increasingly, they are being alienated from the port and their jobs. Obviously, this phenomenon does not solely apply to the postmodern age and port labor. According to Dekker (2014) throughout the twentieth century - simultaneous to the industrialization of society - we have been of two minds about the role of humans: are they a problem to control or solution to harness? (p. 32). In the behaviorist tradition of

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¹ ‘Port’, https://en.wikipedia.org/wiki/Port, consulted on 03-08-2015
⁴ ‘De slimste haven van de wereld’, VPRO Tegenlicht, 26-04-2015
⁵ ‘De Rotterdamse haven verandert, maar deze havenarbeider verandert mee’, De Correspondent, 17-05-2015
psychology, humans were seen as the cause for safety trouble. The aim of behaviorism, therefore, was to influence the behavior of humans, as well as adjust it to the systems with which they worked. After World War II ideas about human behavior changed due to rapid and complex technological developments. It was realized that technologies should be adjusted to human behavior, and that human behavior also plays a role in the reduction and prevention of incidents. At that time, behavioral psychology has been replaced by cognitive psychology. Within this psychological stream there was more interest in the question why people acted the way they did, and research was centered on people’s sense-making processes (p. 33). In the aftermath of some serious disasters such as the Space Shuttle Challenger tragedy and the catastrophic nuclear incident at Chernobyl - both occurred in 1986 -, there has been an extensive proliferation in studies that researched human behavior and safety culture, for example in the tradition of high reliable organizations (La Porte, 1996; Weick & Sutcliffe, 2001).

Currently, safety engineering involves ideas both about the risk and indispensability of human behavior. At the same time, however, processes of automation are intensified and accelerated more than ever before. In these processes, there is less space for people. In his work *The Glass Cage - Automation and US* (2014) Nicholas Carr critically discusses the consequences of automation. Throughout his work he emphasizes the advantages of automation, such as faster processes, less errors and financial benefits. However, according to Carr, these advantages have a huge downside: in the process of automation fundamental human knowledge and skills are at stake. The question arises what will happen with people’s creativity, ingenuity and ability to cope with the diversity of reality when they will be reduced to nothing more than a risk factor. Many historical cases have demonstrated what can happen if practical, contextual knowledge is neglected.

Some of these have been discussed by James C. Scott in his influential work *Seeing Like A State* (1998). In his work, Scott analyzes a few large-scale schemes to improve the human condition, such as collectivization in the Soviet Union and forced villagization in Tanzania. According to Scott, all these plans have failed because the designers of these plans neglected the value and indispensability of métis, a Greek concept which involves “a wide array of practical skills and acquired intelligence in responding to a constantly changing natural and human environment” (Scott 1998: 313). Obviously, these large-scale schemes took place in the context of the ideology of high-modernism, which encompassed the opportunity to apply scientific laws such as standardization, rationalization and legibility in the design of society.

**Entering the field: the Antwerp affair**

However, nowadays high-modernism has been replaced by our postmodern society, and now it is particularly processes of automation that call the shots. Indeed, people in a variety of sectors ranging from rather technical such as aviation and oil-drilling, to more creative or public such as architecture and procurement, fear the far-reaching consequences of automation. To come back to the initial sector the introduction started with, the port sector, the rapid process of automation is not the laborer’s only concern.
Increasingly, the nature of their work practices changes due to such developments as globalization, privatization and specialization. In order to remain competitive ports have to respond to these developments, which causes for many changes in the port sector. The port of Antwerp as the heart of the transport sector in Belgium and its hinterlands is of special interest here. It is one of the most important driving forces of the Belgian economy and it provides a great deal of employment in the region and beyond (Webers, Janssens & Peeters, 2006). Consequently, the combination of these macro-level and national developments have a considerable impact on the port of Antwerp.

At the Antwerp Port Authority the developments as described above have been given an extra impulse. Although the port of Antwerp is still one of the most important gateways to Europe, it has to be able to adequately adapt to these rapid changes to keep that position.⁶ Therefore currently reorganizations are implemented in a furious pace, which in particular concern the operational service departments. Cuts, transfers to other departments and retraining for other jobs: the changes are plenty. During fieldwork I found that these changes have been ill-received by most of the employees. This appears to cohere with the fact that the composition of the crews, and thereby the very work practices themselves have been changed dramatically.

Problem statement
Indeed, I perceived crews and their activities as communities of practice. Communities of practice are defined here as “an informal aggregation defined not only by its members but by the shared manner in which they do things and interpret things” (Gherardi, Nicolini & Odella, 1998: 204). At the operational service departments captains, sailors and engineers are united in a community of practice because they are all part of a particular practice, whether it be dredging the waters of the Scheldt, towing huge sea vessels or the siphoning of containers. Organizational changes such as the implementation of new work schedules and the flex sailor system have influenced the composition of the communities of practice, as well as their shared practices. Although they are still employed as sailors, captains or engineers, employees think that they can no longer practice their jobs sufficiently because their crews got fragmented. In the process of fragmentation, implicit knowledge, skills and routines that are crucial in practicing safety are diminished. Indeed, for a great deal communities of practice are based on these implicit or tacit elements (Orr, 1996; Wenger, 1998; Hale & Borys, 2013).

Moreover, besides - and because of - sharing a particular practice, communities develop a coherent outlook on the world (Brown & Duguid, 2001). Perceptions and narratives about safety, as well as safe working practices themselves are part of this outlook. Since these narratives are generated by and through the practices of communities of practice, it appears that these narratives correlate with the safety culture that they are part of (Gherardi et al., 1998; Collinson, 1999). People on the work floor have to practice safety. As a result, their safety culture is radically different from the safety culture of the

regulators of safety, such as the people from the department of Occupational Health & Safety. Therefore, they have conflicting perceptions and narratives about safety.

Therefore, from my perspective, the study of communities of practice requires a practice-centered approach, which implicates that I will look at what people actually do, as well as listen to what they tell about what they do. Indeed, practice is defined as “the actual, constantly evolving accomplishment of an object-oriented activity which obtains some durability and diffusion by virtue of being sustained by a social grouping and inscribed in some material or symbolic intermediaries” (Nicolini, 2009: 121). Nicolini’s method of zooming in and out is of special interest here. This method involves the switching of lenses and repositioning in the field and is aimed at discovering “the connection between the-here-and-now of the situated practicing and the elsewhere-and-then other practices” (ibid.: 3). Therefore I will include macro-level developments as imperative for reorganizations on meso-level, which on their turn have a considerable impact on safe working practices on micro-level.

However, simultaneous to - and as I will argue at odds with - the reorganizations, the Antwerp Port Authority is occupied with the continuous improvement of safety, both in material and social terms. It is for this reason that the department of Occupational Health & Safety (Interne Dienst Preventie & Bescherming) aims to quantify the influence of the reorganizations on safe work practices at the operational service departments. Currently the department of Occupational Health & Safety is involved in the organization and execution of an extensive survey that is to be held among the 1650 employees of the Antwerp Port Authority. The goal of the survey is to provide insights in, and anticipate on the (negative) effects of the organizational changes.

At the operational service departments, the reorganizations are a heavily contested topic. A lot of employees are frustrated, job satisfaction has decreased and absenteeism has increased. However, more importantly, the reorganizations are said to threat safe work practices. Therefore, in this study my aim is to discover how the reorganizations at the operational service departments influence safety on the work floor, as well as to reveal conflicting narratives about safety. Therefore, my aim is to answer the following research question:

*How do safe working practices change against the background of reorganizations at the Antwerp Port Authority?*

In particular, I will illustrate how safe work practices change based on the new work schedules and the flex sailor system. I will argue that these two organizational changes cause for the fragmentation of communities of practice, which is perceived as a threat to safe work practices.

**Scientific and practical relevance**
There have been several studies that explored the practice-safety linkage (Gherardi et al. 1998; Gherardi & Nicolini 2000; Rooke & Leslie, 2005). Gherardi et al. (1998) for example argue that within an
organization, there are as many safety cultures as there are communities of practice, and that these all play an important role in the social construction of safety (p. 202). Often, the social constructions of safety are contradictory to the constructions of other communities of practice, such as the organization’s management. According to the authors, these conflicting interpretations of safety derive from different logics and conceptual frames (p. 205). While this is an important insight which I will repeatedly refer to in this study, not much is said about the effect of developments of macro- and meso-level on such a community of practice. From my perspective, the authors incline to overemphasize dynamics on micro-level, thereby neglecting the effects of larger structures. Gherardi & Nicolini (2000) partly fill this gap. They include the historical, socio-material and cultural contexts in which practices take place (p. 330). However, still the focus is primarily on the coming into being and dynamics of (communities of) practice. On their turn, Rooke & Leslie (2005) draw attention to the fact that initiatives that do not make use of local, experiential knowledge may fail to fully address accidents on the work floor (p.2). While their study is a relevant contribution to insights about the indispensable practical and contextual knowledge of employees, it does not draw attention to structures and developments that cause for the disappearance of this knowledge.

In sum, none of these and other studies researched how developments on a larger scale can fragment communities of practice. Indeed, as it will appear, the fragmentation of communities of practice can have devastating effects on safe working practices. Therefore, my scientific contribution involves a close-up on the dynamics of fragmentation. In doing so, I will draw upon on the socio-material approach (Latour, 1993; Gherardi & Nicolini, 2000; Orlikowski, 2007). This approach assumes that social and material elements are inextricably linked with each other. Indeed, as Orlikowski also (2007) argues, to explore the relationship between social and material elements is to better understand contemporary forms of organizing (p. 1446). From my view, the added value of a socio-material approach includes not only the fact that social events are caused by material artefacts and vice versa, but also that events and artefacts are socio-material in itself. Indeed, there is no material without social and vice versa.

Furthermore, this study is of practical relevance for several other reasons. First, by employing the ethnographic method I aim to contribute to the survey that is to be held at the Antwerp Port Authority. The ethnographic method is characterized by combined field work methods, being at the actual scene, attention to both hidden and harsh dimensions such as power and emotions, and a context-sensitive and actor-centered analysis (Ybema, Yanow, Wels & Kamsteeg, 2009). I immersed myself at the operational service departments for three months. Obviously, such an endeavor would be very time-consuming and costly if the people at the APA - the department of Occupational Health & Safety in particular - had to do it themselves. Furthermore, I got the opportunity to get to talk to a lot of people. The conversations I had ranged from in-depth to very informal and provided me with valuable data. Also, I came in as a neutral outsider. Since the reorganizations are a heavily contested topic as well as a cause for friction between the management and employees, a neutral perspective (as far as possible) is essential. All these
elements that emanate from the ethnographic method enabled me to generate insights that otherwise perhaps would not have been revealed.

Second, in this study communities of practice are the primary unit of analysis. Research has shown that communities of practice can enhance organizational effectiveness and profitability in their role of handling complex problems.

According to Wenger,

Organizations are social designs directed at practice. Indeed, it is through the practices they bring together that organizations can do what they do, know what they know and learn what they learn. Communities of practice are thus key to an organization's competence and to the evolution of that competence. (1998: 241)

From this it appears that organizational knowledge resides in communities of practice: they form the core of organizations. Likewise, Brown & Duguid (2001) argue that “organizational adaptability to a significant degree is determined by communities of practice” (p. 205). As mediators between individuals and structures, they fulfill an important role in knowledge creation and sharing. Considering the reorganizations the operational service departments are confronted with, it seems useful and important to get to know more about the impact of the reorganizations on communities of practice, as well as on their safe working practices.

This thesis is outlined as follows. First, the main theoretical concepts will be discussed in the theoretical framework. Subsequently, I will draw attention to the methods and methodology used in this study. In chapter 3 of this study the context of the port of Antwerp is outlined, such as facts and figures of the port and the relevant departments of the Antwerp Port Authority. In chapter 4 attention will be paid to the reorganizations at the operational departments. In chapter 5 the process of fragmentation of communities is illustrated based on the case of the new work schedules. Chapter 6 will feature an analysis of the way this fragmentation threatens safe work practices. These chapters will be followed up by the discussion and conclusion respectively.
1.1 Introduction
The central question as formulated in the introduction refers to various theoretical and practical concepts. In this section I will elaborate on these concepts and their mutual relationships. The central concepts employed in this study involve a practice-centered approach, communities of practice and socio-material safety. This last concept is a very extensive one since it combines the topics of safety as well as a socio-material approach to safety. In order to elaborate more comprehensively and better understand socio-material safety, in this part I will deal with the concepts of safety and socio-material approach as separate.

The central question of this thesis also refers to the topic of reorganizations. However, I will not elaborate extensively on this topic in this part because in this study reorganizations form the context in which work practices take place. Moreover, in employing a practice-centered approach I will attempt to analyze how sense can be made of the reorganizations by means of practices. Therefore I will elaborate on the reorganizations in the empirical part of this thesis in particular. Yet I will shortly touch upon the concept of organizational change in the part on practice-centered studies, since in these studies the approach to organizational change is radically different from the more traditional approaches to change.

As I will argue, (un)safe practices on the work floor are a result of larger structures. In employing the method of zooming and zooming out I will attempt to reveal the connection between practices on different (organizational) levels.

Since I will employ a practice-centered approach I will shed light on studies in this stream of research first. Second, I will move to the concept of communities of practice, which often is linked to practice-centered studies. I will analyze the various crews at the operational service departments as communities of practice, because from my perspective the crews exactly meet the criteria of the concept. Third, attention will be paid to the concepts of safety and safety culture. It will appear that these are closely related to the various communities of practices at the operational departments. Lastly, the concept of the socio-material approach will be discussed. This approach is very useful in the analysis of the new work schedules and flex sailor system, since these are socio-material elements and have socio-material effects.

1.2 Practice-centered studies
Deriving from the “philosophy of everyday life”, practice-centered studies have shifted attention from rather abstract notions of organizations and organizing to the question what people actually do in organizations (Orr, 1996; Tsoukas & Chia, 2002; Demers, 2007). According to Orr, for a long time, the topic of work has been treated and discussed in terms of the social relationships of employment (1996: 9). Much less attention has been paid to what is actually done at work. In line with Orr, Barley & Kunda
argue that within organization sciences the very nature of work has “slipped increasingly into the background as organizational theory converged on the study of strategies, structures, and environments as its central and defining interests” (p. 76). According to the authors this is due to large technological, social and economic shifts in the first half of the twentieth century. Today, we are once more confronted with large shifts that change the nature of work, as well as how people experience work in their daily lives (p. 77). Therefore Barley & Kunda argue for a return of the concept of work in organization sciences. Within practice-centered studies, researchers anticipate on this renewed interest by asking such questions as: through which moves, strategies, methods and discursive practical devices do practitioners accomplish their work? What practical concerns move practitioners? How are the different elements realigned? (Nicolini, 2009: 124).

These different questions come together in Nicolini’s (20090 definition of practice as “the actual, constantly evolving accomplishment of an object-oriented activity which obtains some durability and diffusion by virtue of being sustained by a social grouping and inscribed in some material or symbolic intermediaries” (p.121). This definition refers to various relevant elements. The first element, evolving accomplishment involves an important assumption concerning the ongoing character of change within practice-centered studies. According to Nicolini, “attention to the accomplishment of the practice also highlights is constantly evolving nature” (p. 125). This approach to change is contrasted with traditional and rather monolithic approaches, such as the planning approach, The Group Dynamics School and Organizational Development (Alvesson & Sveningsson, 2008: 20). Within these streams of research it is assumed that change is sequential and episodic, and therefore an exceptional state of affairs. Furthermore, it is assumed that stability as the normal state of affairs can be interrupted by planned change programs, which are aimed at the transformation of the organization and can be refrozen into a stable situation (ibid.: 20). Instead of a dichotomy, in practice-centered studies stability and change are viewed as a continuum, implicating that change is the natural state of things (Demers 2007: 177). Indeed, Tsoukas & Chia (2002) equate organizing with changing practices. These authors rather speak of ‘organizational becoming’, in the sense that change is “the reweaving of actor’s webs of belief and habits of action to accommodate new experiences obtained through interactions” (ibid.: 567). Practices change because they are continuously constructed and reconstructed in human action. Indeed, practice-centered studies are part of the social dynamics literature, which perceives organizations and processes of organizing as socially (re)constructed and submitted to change (Demers, 2007: 177).

The second element of the definition of practice employed by Nicolini, refers to object-oriented activity, and concerns the actual doing of the practice and its temporal flow (Nicolini, 2009: 122). It is an act that happens in a certain time span. This relates to the practical and theoretical strategy to study work practices and the context in which they take place, employed by Nicolini (2009). This strategy concerns the technique of zooming and zooming out on ethnographic data and between data and theory, and is aimed at taking the context and its different layers into account (p. 120). That is, practice that takes place on a local level is connected with practices on other - organizational, global - levels. This connection can
be revealed by means of the technique of zooming in and zooming out. In the methodological section of
this thesis I will further elaborate on this practice-centered strategy.

The third element, sustained by a social grouping concerns the interactional patterns that are
involved with the practice. The practice takes place within a social group or community, and therefore
practice is always social. Moreover, practice is shaped by structures, historical conditions and individual
agency (Ortner, 1986; Nicolini, 2009). In drawing on influential practice theorists such as Bourdieu,
Giddens and Foucault, Ortner distinguishes four elements related to practice theory, which encompass
practice, structure, actor and history. According to Ortner, practice can be any form of human action or
interaction, as long as it recognized that its features are imbued with power (1986: 11). This power
element can appear in various forms, such as asymmetry, inequality and domination. Furthermore, power
resides in structures, and is therefore inextricably linked to practice. Indeed, “practice emerges from
structure, it reproduces structure, and it has the capacity to transform structure” (ibid.: 13). In this story,
actors are both the producers and products of these structures. That is, they are shaped by structures,
yet they are also able to transform these structures (ibid.: 14). Lastly, history refers to the way external
forces of society are mediated within that society. According to Ortner, this process of meditation
concerns both structural arrangements and cultural patterns (ibid.: 17).

Consequently, practices are not merely what people do. Or, as Wenger puts it, “practice connotes
doing, but not just doing in and of itself; it is doing in a historical and social context that gives structure
and meaning to what we do; practice therefore is always social” (1998: 47). Indeed, according to Geiger
(2009), practice-centered approaches should not be merely employed to get closer to organizational
reality, since organizational reality does not speak for itself (p. 132). Instead, practice-centered studies
should focus on various deeply embedded processes of practices and performances, which is especially
useful when conditions are characterized by conflict and breakdowns (ibid.: 130). To reveal these deeply
embedded processes, Geiger suggests practice-theorists to focus on the way practices get sustained and
continued to be practices, and to investigate how practitioners speak and reflect upon practices (ibid.: 140).
In line with Geiger, Gherardi (2009) stresses the critical power of practices, for example in looking at
how power structures institutionalize and sustain certain practices (p. 124). Moreover, the researcher who
studies practices is also imbued with power, since he or she is not disembodied and genderless.

The last element, material or symbolic intermediaries, refer to the means by which the practice is
accomplished, such as tools, interaction or other practices. These means can be both explicit and tacit
(Wenger, 1998: 47). Explicit elements includes such heterogeneous elements as language, tools,
documents, images, symbols, well-defined roles, specified criteria, codified procedures and regulations.
They are explicit in that they have a clear purpose and are directed at the practice. Tacit elements include
such things elements as implicit relations, tacit conventions, specified criteria, codified procedures,
regulations, subtle cues, untold rules of thumb, underlying assumptions and shared world views. These
tacit elements are not clearly articulated and therefore difficult to reveal. Yet it is the combination of these
explicit and tacit elements of practice that tell us something about the practitioner’s engagement with the
world, as well as about why practices are the way they are. In sum, the material and symbolic intermediaries together form a heterogeneous source of knowledge and skills on which the practitioner draws, and which he or she shares with other practitioners within communities of practice.

1.3 Communities of Practice
To put it in very basic terms, communities of practice are people that are united in a (professional) group because they are part of a particular practice. Consequently, communities of practice are characterized by their members and the shared manner in which they do things - the practice - and interpret things - ideas about the practice (Gherardi, Nicolini & Odella 1998: 204).

The concept of community of practice has its roots in an original ‘ancestor’ construct; cognition in practice (Thompson, 2011: 762). Drawing upon the work of early practice theorists such as Bourdieu (1977) and Giddens (1979), Jean Lave (1988) invented this construct as a critique of cognitivist anthropology, psychology and sociology. The theories that were produced in these cognitivist disciplines focus on internal cognitive structures and view learning as transformations in these cognitive structures (Wenger, 1998: 279). Consequently, learning is dealt with as the unilateral transmission of information from one person to another.

Instead, by focusing on practice, Lave shifted attention from the “person” to the “whole person in action” (Thompson, 2011: 763). Rather than an entity (a person, for example), the focus was shifted to a process which takes place in a particular context. This idea was extended in Lave and Wenger’s (1991) book on Situated Learning: Legitimate Peripheral Participation. In this book, the authors argue that learning involves engagement in a community of practice. By studying the process of engagement in a community of practice, we can understand how participation, learning, personal identification, performativity, and social status interact with another within an unfolding social context (Thompson, 2011: 763). In line with Orr, Lave & Wenger (1991) argue that knowledge is an integral and inseparable aspect of practice.

Ever since its invention, the concept of cognition in practice has known considerable theoretical progress. According to Thompson (2011) this theoretical progress is due to epistemological and ontological shifts. Successors of the concept of community of practice for example are constellations of practice, virtual communities, networks of practice and collectivities of practice. The progress of these terms are marked by a shift from a process worldview towards an entitative worldview. It is not my goal here to elaborate on philosophical issues related to the generation of theory, yet it needs clarification that the original concept of community of practice is something rather different than its successors. For example, networks of practice concern groups of people where most people are unknown to each other, and where links are often more indirect than direct (ibid.: 765). Although networks of practice undoubtedly are to be found in a lot of modern organizations and in our networked society in general, this construct considerably differs from communities of practice. Indeed, the latter is characterized by direct social
relations, practical knowledge, socializing practices and absorption of the culture in which a particular practices take place (Gherardi, Nicolini & Odella, 1998).

Influential works on communities of practice (Orr, 1990; Lave & Wenger, 1991; Wenger, 1998) include these specific characteristics. A particular all-encompassing definition of the concept is derived from Wenger (1998). Wenger describes communities of practices as *joint enterprises* that are understood and continually renegotiated by its members; that consist of relationships of *mutual engagement* that bind members together in a social entity; and that *share a repertoire* of communal resources that members have produced over time (p. 73).

*Mutual engagement* implicates that the practice resides in the community. In this sense, mutual engagement involves more than interpersonal relationships. In line with Wenger, Gherardi et al. argue that social relations are created around activities, and that these activities take shape through relations and particular experiences, and that knowledge becomes part of individual identity (1998: 204). A community of practice, therefore, is a special type of a community: the mutual engagement is what defines the community.

*Joint enterprise* refers to the collective process of negotiation about the practices of the community. Negotiation is not a goal in itself, “but creates among participants relations of mutual accountability that become an integral part of the practice” (Wenger, 1998: 78). An example of such a join enterprise is to be found in Orr’s (1996) study on photocopier technicians. Together, the technicians are involved in the construction of knowledge, which makes the standard manuals and operating procedures redundant. That is, through the construction and sharing of stories and through joint problem solving, the technicians know and can do much more than the official manuals and procedures prescribe.

*Shared repertoire* refers to all the material and non-material resources of the community of practice, such as routines, sensibilities, gestures, artifacts, vocabulary and styles. Such a shared repertoire is developed over time, and becomes part of the practice. Wenger calls it a repertoire to emphasize that it has a rehearsed character but still is open for further engagement in practice (Wenger, 1998: 83). A coherent outlook on the world is also part of community’s shared repertoire (Brown & Duguid, 2001). That is, being involved in practices is not just about engagement in activities, but about active participation in the practices of social communities and constructing identities in relation to these communities (Wenger, 1998: 13). The title of Orr’s study *Talking about Machines* (2006) is significant in this respect. According to Orr, the photocopier technicians he studies “should be viewed as an occupational community, because they are focused on the work, not on the organization, and the only valued status is that of full member of the community, that is, being considered as a competent technician” (1996: 77). That is, members of a community of practice draw their professional identities from that very community and their practices. The photocopiers are the technician’s passion, occupation and rationales of existence at the same time. Therefore, according to Orr, learning, narratives and community all derive from the work and cannot be considered without it (Orr, 2006: 1805).
1.4 Safety (culture)

In their work, Gherardi, Nicolini and Odella (1998) connect the concept of communities of practice to the concepts of safety and safety culture. Their central assumption involves that “people in an organization do not learn “safety”; rather, they learn safe working practices” (p. 202). That is, people’s interpretation of safety varies enormously according to their viewpoint or membership of a community of practice. In other words, there are as many perceptions and social constructions of safety as there are communities of practice (p. 204). With this statement, the authors agitate against the somewhat notorious tendency of authors in safety literature to view safety as something transferable, monolithic and rational, thereby neglecting micro-perspectives, sense-making processes and the socially constructed nature of safety.

Yet more recent literature on safety increasingly acknowledges and emphasizes the constructed nature of safety (Gray & Turner, 2009; Turner & Tennant, 2009). Indeed, according to Barton & Sutcliffe “it is through micro-level social processes that the organizational practices that contribute to safety are enacted” (Barton & Sutcliffe, 2009: 1329). This is a promising development, which is based on the rich tradition of research on high-reliability organizations. Within this traditions it is acknowledged that reliability and safety are achieved through human processes and relationships instead of from static, system-level structures.

However, we should be aware of the tendency to overemphasize micro-level processes, thereby neglecting the material context and broader structures that influence safe working practices on the work floor. Because of its diverse interpretations and the necessity to include both macro level developments and micro level processes, the concept of safety is hard to define. The ambivalence of safety is well captured in Gherardi’s et al. (1998) definition of safety as “an emergent property of a socio-technical system, as the end product of a process of social construction involving people, technologies and texts assembled into systems of material relations” (p. 203). In this definition, Gherardi et al. touch upon some important issues. First, safety is an emergent property. This implicates that safety is not a static element ‘out there’, but that it is dynamic, situated and process-based. Second, safety is the ‘result’ of a socio-technical system, which implicates the close interdependence of both human and non-human factors, such as behavioral resources and technological artifacts (Pidgeon, 1991; Latour, 1993). According to Pidgeon (1991) individuals, their organizations, groups and cultures all are involved in the design, construction, operation, and monitoring of technological systems (p. 130). This implicates that both human action and technology cause for accidents. Consequently, errors have their roots both in social, organizational and technical arrangements (p. 131). In line with the former element, it is assumed that safety is socially constructed in interaction, and, consequently, “inextricably bound up with the material and social circumstances in which this interaction and construction takes place” (Gherardi & Nicolini, 2000: 331). In this sense, it relates to Barton & Sutcliffe’s statement that safety is enacted through social micro-level processes, as it was discussed above.

Another revelatory study that involves different approaches to safety is to be found in Hale & Borys (2013). The authors present two main paradigms on safety rules. Model 1 is a top-down and static
approach to safety, characterized by rationality, limits on the freedom of choice and broad applicability. In contrast, model 2 is a bottom-up and dynamic approach to safety, characterized by locality, situatedness and the social construction of safety by members who are carrying out (safe) actions and activities. The gap between these models is illustrative for the gap between on the one hand managers and regulators who are trying to modify reality to match safety rules, and on the other hand communities of practice as the actual operators of safety, who in their work change safety rules to match (the complicity and diversity of) reality (p. 214). In line with Gherardi, Nicolini & Odella (1998) - Hale & Borys argue that different communities of practice attach different meanings to the role of safety rules and procedures (p. 215).

Rooke & Clarke (2005) present an illuminating case on this matter. In their research, they reveal patterns of authority and learning at a construction site in the UK, which are significant for the promotion of a safety culture. Because the amount of accidents has increased, the construction managers strive for a safety culture by means of extra safety training and coaching, and revision and sharpening of the safety rules and procedures. Yet these measurements to enhance safety are imposed from above, much resembling safety model 1 (Hale & Borys, 2013). They are written, documented, communicated and incorporated in training to be enforced on the work floor (Hale & Borys, 2013: 210).

However, reality is more diverse and complex than that. That is, there exists a gap between such an imposed safety culture and actual safety practices. Practitioners on the work floor have learned to deal with safety through an accumulation of experience which in itself is situated, locally adapted, explained and justified (p.216). In line with Hale & Borys, Rooke & Clarke argue that in order to enhance safety, initiatives should make use of experimental, local knowledge to fully address hazards (p. 2). This argument resembles safety model 2 (Hale & Borys; 2013) in which it is stressed that specialist knowledge and skills are mostly tacit and emerging from experience. Indeed, knowledge and practice are inseparable in learning and performing safety. This relates to the socio-material approach, in the sense that safety as form of competence is situated in practices, and that it is mediated by artefacts that are both social and material (Gherardi & Nicolini, 2000: 329).

### 1.5 Socio-material approach

The concept of socio-material systems stems from Latour’s influential *actor network theory* (1993; 1994). The central assumption of the *actor network theory* involves that there exists no distinction between the material and the social world, but that social and material elements are interconnected through *intermediaries*.

These involve the four categories of:

- Human beings and their skills and knowledge; artifacts as all the non-human entities that facilitate a task or performance; texts and inscriptions including everything that is written and recorded;
- and money in all its manifold forms. (Gherardi and Nicolini, 2000: 335)
These intermediaries move through the organization, to be used in the accomplishment of a defined goal. Latour explains this movement as a model of translation, in which it is assumed that "an object, order, command, or change program will move according to how people actively align with it and make sense of the order and command" (Alvesson & Sveningsson, 2008: 29). In this sense, the translation model can offer insights about employee's local interpretations, sense-making processes and active identity positioning within the organization. These insights are essential in times of conflict and organizational change.

The added value of focusing on the material in social sciences includes several other reasons. According to Fenwick (2010) "work life is fully entangled with material practice, technologies, vehicles, architectural spaces, roads and roadblocks, nature and objects of all kinds, in ways that are often not even acknowledged in the preoccupation with understanding human activity and meaning-making" (p. 105). Recently, scholars in social and organization sciences pay more attention to the material environment in which practices occur (Orlikowski, 2007; Bjørkeng 2009; Marrewijk, 2010). According to Orlikowski, “developing new ways of dealing with materiality in organizational research is critical if we are to understand contemporary forms of organizing that are increasingly constituted by multiple, emergent, shifting, and interdependent technologies” (2007: 1435).

An example of a study that deals with materiality in a revelatory way concern Bjørkeng, Clegg & Pitsis (2009). In their study, the authors explore how the adaptation of materiality is essential in the transformation of work practices. The process of transformation is constructed in a material environment that is inextricably linked with these practices. Based on the work practices of the governance team of a construction project they illustrate how the adaption of materiality works. Instead of holding meetings at the board room for example, the alliance prefers to meet in the actual field - the construction site - to really feel and experience the project up close. In this way, the materiality of the construction site contributed to the meaning and transformation of work practices (ibid.: 156). Bjørkeng et al. therefore emphasize the relevance of the impartiality of practices and the material context in which they take place.

In sum, organizational changes such as the implementation of new work schedules and the flex sailor system have influenced the composition of the communities of practice, as well as their shared practices. In employing a practice-centered approach, I will focus on practices on the work floor, as well as on the (conflicting) narratives people have about these practices. In doing so, communities of practice will serve as the primary unit of analysis. My aim is to explore how the reorganizations at the operational service departments influence safe practices on the work floor.
Methodology

2.1 Introduction
In this section I will elaborate on the methodology and methods that I used during fieldwork and the analysis of my data. First, attention will be paid to the course of events concerning access to the Antwerp Port Authority and its operational service departments. Next, I will discuss methodological issues and the nature of interpretive research in particular, since this study is characterized by interpretive methods. Third, I will elaborate on the method of ethnography as well as on how I applied this method in doing fieldwork. Fourth, I will touch upon the analyzing and theorizing process. Lastly, in the reflection I will pay attention to the factors that influenced my research and data.

2.2 Access to the (operational) field
In November 2014 I send a letter containing a short explanation of my research topic and interests to the Antwerp Port Authority. A few days later I got a message back that I was invited for an interview. Since my research topic encompassed safety (culture) I was redirected at the department for Occupational Health and Safety (IDPB). This interview, with head of the department Etienne Kiekens and safety supervisor Victoria Krawczyk took place at the beginning of December. Mr. Kiekens and ms. Krawczyk approved my request to execute fieldwork for 3 months at the operational departments of the Antwerp Port Authority from the beginning of February 2015.

On February 2nd I started the fieldwork. That is, I got a desk and a computer at the IDPB, while the actual ‘field’ was still unknown to me. I still had to gain permission from the managers of the operational service departments to execute fieldwork on a daily basis. Obviously this took longer than I expected beforehand. This is possibly due to the fact that ethnography often is unknown and vague to ‘outsiders’. Moreover, since I wanted to observe and get to talk to people on the work floor, there were some practical obstacles. The operational service departments are in remote places. Transport to my research sites therefore was problematic sometimes. Furthermore, I had to adapt to the work schedules of the employees. Once I boarded a vessel that had to do an operation somewhere else in the port it was not so easy to get back, for example. Indeed, sometimes it appeared to be difficult to assess whether it was safe for me to join a crew during an operation at all. Yet these moments also appeared to be the most interesting and provided me with valuable data.

Eventually I decided to do the lion’s share of my fieldwork at the dredging service department after I got approval by the manager. The dredging service department is interesting for my research in particular because it encountered (and still encounters) a lot of organizational changes. As a result, employees at this department had a hard time in coping with these changes. Therefore, according to the management, my research appeared like a good opportunity to achieve more insights in the employees’ feelings, perceptions and experiences.
I also executed a small part of my fieldwork at the tugboat service department. Since there are a lot of (safety) issues going on, the tugboat service department is very interesting for my research as well. However, this department was very hard to reach for me. It is located near the Dutch border, which means that is about 60 kilometres away from the city of Antwerp. Unfortunately I do not own a driver’s license, so I was dependent on the times that one of my colleagues had to be at the tugboat service department for an appointment or whatsoever. However, thanks to the flex sailor system I got to talk to a lot of employees who work at both departments. In this way I was able to get a good overview of both departments, and to discover that the same sort of organizational issues were at stake.

2.3 Methodology
Methodological issues are generally divided into quantitative and qualitative research (Prasad & Prasad, 2002; Bryman, 2008; Schwartz-Sea & Yanow, 2012). Quantitative data is concerned with quantification in the collection and analysis of data, whereas qualitative research emphasizes words in the collection and analysis of data. These forms of research can have various ontological and epistemological underpinnings.

Ontological considerations concern the nature of social entities. The central question here concerns whether social entities can and should be considered objective entities that have a reality external to social actors, or whether they can and should be considered social constructions built up from the perceptions and actions of social actors (Bryman, 2008: 18). The different viewpoints on this subject are respectively known as objectivism and constructionism. Researchers in the tradition of constructionism view social phenomena and their meanings as socially constructed by actors (ibid.: 19). It is assumed that social reality is produced and reproduced in social interaction and through meaningful interpretations (Prasad & Prasad, 2002: 6). Moreover, within constructionism the researcher is perceived as a research tool in itself, presenting a particular version of social reality.

Epistemological issues refer to what is or should be regarded as acceptable knowledge in a discipline (Bryman, 2008: 13). The central question in epistemology concerns whether the social world can and should be studied in the same way as the natural sciences. Researchers in the tradition of positivism believe in the existence of an objective, universal truth. It is the task of the researcher to reveal and explain this truth. In contrast, interpretivism is about the interpretation of human action. It is the task of the researcher to reveal the social reality that is socially (re)constructed in human action. Consequently, social scientific research requires other research methods from that of natural sciences.

Besides the quantitative-qualitative divide, a recent development in social research distinguishes a third category of social research known as interpretive research. Grounded in social constructionism (Berger & Luckman, 1967), interpretive research encompasses qualitative methods resting on a phenomenological hermeneutics that privileges local situated knowledge (Schwartz-Sea & Yanow, 2012: 6). From the interpretive turn (Geertz, 1973) in social sciences from the 1970s onwards, interpretive research gradually gained more popularity. Interpretive research focusses on the contextual meaning-
making practices of actors. Therefore, it is assumed there are no clear-cut research tools and a research design that prescribe how the research should be done. Rather, interpretive research is about approaches and choices among them. These approaches have in common that they are dynamic, emphasizing the thought processes and ensuing strategies that go into ‘designing’ the research (Schwartz-Shea & Yanow, 2012: 5). In other words, the interpretive research process is flexible and open-ended. The task for the researcher, then, is to understand processes of symbolic interaction through which people interpret and reproduce social reality (Prasad & Prasad, 2002: 7).

Since I am interested in the interpretations and practices of communities of practice, interpretive research that is sensitive to how participants make sense of their work and world is the research category to choose. Interpretive research stems from the qualitative tradition. The distinction between qualitative and interpretive research as it was described above might be somewhat confusing, since interpretive research belongs to the qualitative domain, yet the reverse is not necessarily true. Indeed, according to Prasad & Prasad (2002) interpretive research emerged out of discontent with forms of qualitative positivism (p. 6). It implicated a total break with positivist, static and objectivist research and its underpinnings. This break, however, did not result in an explicit research strategy, since the particularistic and contextual character of interpretive studies simply does not lend itself for a clear-cut research design. In line with Schwartz-Shea & Yanow, Prasad & Prasad emphasize that although interpretive approaches do share a common ground, each of these approaches is also based on relatively unique methodological considerations that guide individual research projects (p. 6). Therefore, I will elaborate on the main method of this study, which encompasses ethnography.

2.4 Ethnography

Ethnographic research is a very useful and valuable way to reveal ‘data’, because it studies subjects ‘from within’. This is referred to as the **emic** point of view. From this view, the researcher aims to discover the world through the eyes and acts of the people that are investigated (Eriksen, 2001: 36). Since the method of ethnography is being used in a wide array of disciplines and traditions, the concept is hard to define.

A very useful and all-encompassing definition is to be found in O’Reilly, which reads that

> Ethnography should be informed by a theory of practice that: understands social life as the outcome of the interaction of structure and agency through the practice of everyday life, examines social life as it unfolds, including looking at how people feel, in the context of their communities, and with some analysis of wider structures, over time; also examines reflexively, one’s own role in the construction of social life as ethnography unfolds; and determines the methods on which to draw and how to apply them as part of the ongoing, reflexive practice of ethnography. (2004: 3)
In line with Gherardi & Nicolini (2000), O’Reilly emphasizes the importance of practice as the underpinning of ethnography. Since I will employ a practice-centered approach, this definition of ethnography will be directive in my methodology and research in general.

Furthermore, since my research will take place in an organizational context, I would like to draw attention to the concept of organizational ethnography, which “involves the ethnographic study and its dissemination of organizations and their organizing processes” (Ybema, Yanow, Wels & Kamsteeg, 2009: 4). Indeed, organizational ethnographers are interested in the complexities of everyday organizational life, which often are embedded in the usual and ordinary experiences of people. That is, we tend to have a blind spot for the complexities of everyday organizational life (ibid.: 1). The task of the researcher, then, is to reveal this complexity by the methods of ethnography.

The main method and most important source of ethnography involves - and is often equated with - fieldwork (O’Reilly, 2004: 2). Due to its interpretive and inductive character there is no simple recipe for fieldwork. Induction refers to the generation of theory that derives from empirical observations. Therefore, inductive research is about going out there, watching and wondering, collecting data about what people do. However, fieldwork should always be based on the combined methods of observation, conversing and document analysis (Bryman, 2008; Ybema et al., 2009; Schwartz-Shea & Yanow, 2012).

2.4.1 Observation
Observation draws attention to the fact that the observer immerses him- or herself in a group; for an extended period of time; to observe behavior and listening to what is said in conversations both between others and with the fieldworker; and asking questions (Bryman, 2008: 402). Observation makes up a great deal of my research, since I focused on the work practices of people. Spradley’s theory (1980) on social situations was helpful in this insight. According to Spradley, social situations can be identified by the factors of place, actors and activities (p. 39). Whenever I started to do observations, I ‘mapped’ the social situation based on these factors.

The main observation sites (places) encompassed the outside areas of the dredging- and tugboat service departments, floating crane ‘Brabo’, waste boat ‘Condor’ and several tugboats. The primary target of analysis - or actors - were not individuals, nor entire departments, but communities of practice. That is, I observed how crews of captains, sailors and engineers as communities of practice were doing their work (activities) and how they communicated with other actors about those practices. According to Orr (1996) “an important point about the ethnographic study of work practice is that it must be done in the situation in which the work normally occurs, that is, work must be seen as a situated practice, in which the context is part of the activity”(p. 10). For this reason, I also observed work activities which were not directly embedded in the work practices themselves, such as meetings and trainings. Obviously, valuable data is not only derived from observations in work settings. What happened during more informal moments such as lunch breaks and chit-chats at the coffee machine is just as relevant as observations in more formal settings.
My observation activities involved different degrees of participation, ranging from ‘pure’ observation from a distance to moderate immersion in a crew, known as participant observation (Spradley, 1980). That is, I often went on board on different vessels to shadow the crews during their work day, and asked questions about their jobs. Such questions for example included: “what is this task about?”, “how the task does have to be accomplished?” and “what is the most crucial part of this task?”. According to Nicolini (2009), “to focus on sayings and doings, their temporal flow, the interactional performed by the practice, the horizon of sense, intelligibility, and concern within which practice unfolds, and the active contribution of artefacts constitutes a useful and practical starting point to orient the ethnographic gaze towards practices” (p. 123). From this it appears that practice, the context in which practice takes place, as well as how people reflect upon it are equally important in a practice-centered, ethnographic endeavour.

Furthermore, Moeran (2009) suggests fieldworkers to eventually shift from participant observation to observant participation, in order to learn things with their bodies and not just with their minds (p.140). Although this perfectly appears to fit a practice-centered approach, unfortunately in my case to really participate in activities of the crew was not possible due to safety reasons. However, obviously refusal or allowance of fieldwork activities also forms a source of information.

During observation I took different type field notes, dependent on the (social) situation (Bryman, 2008: 420). I took mental notes when the situation was not appropriate to be seen taking notes, jotted notes when I had to be very quick and wanted to remember the situation (to work it out later more in detail), and full field notes which were elaborate and detailed, and written down right in or after the observed situation.

2.4.2 Conversing
Conversing involves all kind of conversations, such as informal conversations, unstructured interviews, semi-structured interviews and questionnaires (Bryman, 2008: 436). In my research the methods of informal conversations and semi-structured interviews are prevailing. Informal conversations most of the time took place either on a vessel or near of it, implicating that informants were in their domain and natural habitat. Therefore during these conversations informants used to tell a lot about themselves, about their jobs, about their colleagues, about their bosses and about the company. According to Orr (1996), narratives and the circulation of stories are a primary element of practice (p. 2). The machines of the technicians he studied were their “reason d’etre and preoccupation, as well as occupation and sometimes passion and so the technicians talk about them continuously in a surprising variety of ways” (p. 89). The same applies to communities of practice at the operational service departments. The captains, sailors and engineers talk about vessels, weather conditions and specific practice-related issues constantly. Indeed, according to Gherardi, Nicolini & Odella narratives, story-telling and ceremonies are channels in which practices are socialized (p. 204).
Semi-structured interviews, on their turn, offered a good opportunity to talk with informants face to face and in private. These interviews had a 'standardized' start: the first part concerned the personal and professional background of the informant, followed by some more chit-chatting. This proved to be a good start for every interview, since the informant could get familiar with me and the setting in a rather informal way. This appeared to be quite essential, since these kind of interviews were something alien to them. Indeed, access to a community does not automatically mean access to the people that are part of that community (Bryman, 2008: 408). The remaining part of the interview, I asked questions about the main themes of my study, such as the reorganizations or safety. I started with very general questions such as: 'what do you think about safety at your department?', to subsequently ask more specific questions such as: 'which work practices do you consider as unsafe, and why?'. These questions were written down in a topic guide that I designed before the start of the fieldwork.7

Topic guides identify the key issues and subtopics to be explored (Arthur & Nazroo 2003: 26). Although topic guides are useful in mapping the main themes of the interviews beforehand, I barely used the topic guide during the interviews. It felt artificial, and it disturbed the intimate setting. The 25 interview techniques of Hermanowicz (2002: 482) were helpful in this respect. When it comes to interviewing, he pleads for a two-way conversation in which respondents tend to forget that they are participating in an interview. This also should lead to a dynamic conversation, which I can agree on based on my interviews. In total I did 17 interviews. Most of them operational staff - sailors, engineers, captains - from the dredging service and tugboat service department, but also some managers and personnel officers. I tape recorded 14 of the 16 the interviews, and I made transcripts of all the interviews afterwards.8

2.4.3 Document analysis
Document analysis involves the close reading of relevant documentary resources (Ybema, Yanow, Wels & Kamsteeg, 2009: 6). Documents cover a wide array of data that can be read; have not been produced specifically for the purpose of social research; are preserved so that they become available for analysis; and are relevant to the concerns of the social researcher (Bryman, 2008: 515). It is important to critically evaluate documentary resources, because the people who wrote the documents have a particular view and goal that they want to communicate to their readers.

In my research, documentary resources mainly involved official documents containing factual information, such as organograms, statistics and records of proceedings. Companies like the Antwerp Port Authority produce a lot of documents, which are valuable for the ethnographer in the sense that it gives insight in the perspectives of people within the company, as well as how they communicate these perspectives to their audiences. In this sense, documents can be seen as artefacts that talk to other artefacts and practices within and outside the organization. It is important to study these, since they raise questions about the causes, accomplishments and of effects of practices (Nicolini, 2009: 126).

7 See appendix 1
8 See appendix 2
The first month of my fieldwork in particular lent itself for the close reading of documentary resources. First, I read general information about the port, the Antwerp Port Authority, IDPB and the operational service departments to get an idea of the organization and to choose one or more departments for my research. Second, I started to read about safety protocols, regulations, reports and newsletters. This period of textual analysis was a good preparation for the field, in the sense that I could recognize the rather technical jargon about safety, and that I could talk about it with the employees during fieldwork activities.

From my view, these above described combined methods proved to be supportive of the most important characteristics of ethnography (Ybema, Yanow, Wels & Kamsteeg, 2009). These in particular encompass a focus on contextual factors, the perceptions and experiences of actors and the overall interpretation of ethnography as a process, referring to the understanding of how events and patterns unfold over time and getting to know different aspects of the social setting such as values, beliefs and attitudes. Moreover, I share Van Maanen’s approach to ethnography in recognizing that ‘a culture’ is not to be found in the fieldworker’s data, and that fieldwork in itself is nothing more than practicing the interpretation of culture, rather than aiming to solve it like a puzzle (1988: 118).

2.5 Analysis
Qualitative data deriving from observation usually is a “large corpus of unstructured textual material which is not straightforward to analyse” (Bryman, 2008: 538). In order to structure this large corpus I used the method of coding, which refers to the process whereby data are broken down into chunks of thematic text. In particular I coded according to the principles of grounded theory, which entails that I read the transcripts and gave labels to passages that were linked to the main themes of my study or had theoretical significance (ibid.: 542). I for example attached such labels as ‘safety’, ‘practice’ and ‘organizational change’. The coding process was helpful in order to better operationalize and analyse the major themes of my research and research question. The arrangement and rearrangement of my data was a lasting process, since doing and writing ethnography is a continuous interplay between data and theory. That is, data collection, analysis and reviewing theory happens simultaneously. For example, in writing and reading interview transcripts I was able to discover thematic relationships between different themes within and between interviews. The discovery of these linkages enabled me to narrow my focus after each interview.

Another strategy that I used in analyzing my data is derived from Nicolini (2009). The strategy is referred to as ‘zooming in and out’ and is principally designed to study and analyze organizational practices. According to Nicolini, we should see “the connection between the-here-and-now of the situated practicing and the elsewhere-and-then other practices” (p. 3). Zooming in on these connections enabled me to reveal the relationships between local practices and the wider context in which they take place. Zooming in and out is accomplished through switching theoretical lenses and repositioning in the field.
Once back home from the field, “theorizing begins with the choice of what to represent when moving from observation to representation” (ibid.: 127).

This is where the evaluation of the trustworthiness of the data comes in. Schwarz-Shea & Yanow (2009) describe several criteria to evaluate interpretive studies, which include ‘thick description’, reflexivity and triangulation. First, ‘thick’ description refers to the detailed and contextual description of the research setting, observation of events and activities and interactions in field and the embedded symbolic meaning of these phenomena (Geertz, 1973). Thick description enables both the researcher and the reader to ‘read’ and interpret (a particular) culture. Besides situated in the field, the ethnographer is situated in his own text, or, to put it in the words of Prasad & Prasad (2002), “the scholar-inquirer is an ethical subject deeply imbricated with the object of inquiry and the societal field of power” (p. 8). Indeed, the core idea of ethnography is to become engaged with the field, but this should be carried out carefully. Second, reflexivity involves that the researcher is his or her own research instrument (Schwarz-Shea & Yanow, 2009: 60). Therefore transparency about the identities of the researcher is crucial. In the next part I will elaborate on these personal identities and the researcher-researched relationship. Lastly, triangulation involves that the researcher should draw on multiple sources of data and methods in trying to understand and analyze phenomena from the field (ibid.: 60). As it was discussed in the previous part, in my research these different sources of data and methods involve observation, interviews and documents.

Besides situated in the field, the ethnographer is situated in his own text, or, to put it in the words of Prasad & Prasad (2002), “the scholar-inquirer is an ethical subject deeply imbricated with the object of inquiry and the societal field of power” (p. 8). Indeed, the core idea of ethnography is to become engaged with the field, but this should be carried out carefully.

2.6 Reflection

During fieldwork there were some factors that undoubtedly have influenced the relationships with people in the field as well as my findings.

Indeed,

Because ethnographic research rests on a close engagement with the people and processes studied, it tends to place particular demands on organizational ethnographers’ ethical, social, political, and methodological sensibilities, in ways that do not arise in survey and other non-fieldwork forms of research. (Ybema, Yanow, Wels & Kamsteeg, 2009: 13)

Since my research has an interpretive nature, reflexivity about my role as a researcher and the research process itself are of crucial importance. All the researcher’s identities “contribute to a “positionality” that can affect not only the character of the interactions and research questions posed, but also access to
research sites and persons in them and the kinds of data co-generated with research participants” (Schwarz-Shea & Yanow, 2009: 60).

Concerning the researcher-researched relationship I sometimes got the impression that employees perceived me as someone who could change things for them. They told me all kind of confidential stories, which made appear power relations between me and them rather equal. However, since I still was the ‘researcher’ and they the ‘researched’, relationships remained asymmetric. I for example had to adapt to different situations, and I had to find a balance between management and employees. This also has ethical consequences for the analysing and writing process of this thesis, in particular in considering what information I will decide to keep confidential and what not. For this reason, as well as to protect the identities of those that collaborated in this study, I have changed all the names of the informants.

A few other considerations that are related to my research are the fact that I was a woman amongst men (gender), a university student amongst laborers (education), a Dutch citizen amongst Flemish citizens (nationality), and that I held an ambivalent position between employees and management. Often I was made aware of the fact that I was ‘exotic’ to the people at the Antwerp Port Authority, although the level of ‘exotism’ varied per department. However, the operational service departments were also very exotic worlds to me for several reasons. First, the maritime professions are worlds on their own. Almost all employees I got to talk to were born on ships, went to boarding schools and continued their studies and careers in shipping. Second, although the port of Antwerp shares borders with the Netherlands, I was made aware of the fact that I was in another country over and over again. Sometimes this occurred in a rather informal way, for example through jokes about ‘Dutchies’, and sometimes in a more formal way, for example through the observation that people used to speak very polite to me and responded to my questions in a rather indirect way. Yet valuable data also involves what people do not tell (Hermanowicz, 2002).
The Ship

Chapter 3: The context of the port of Antwerp

A ship is a large buoyant watercraft. Some components exist in vessels of any size and purpose. Every vessel has some sort of propulsion, whether it’s a pole, an ox, or a nuclear reactor. Most vessels have some sort of steering system. Other characteristics are common, but not as universal, such as compartments, holds, a superstructure, and equipment such as anchors and winches.9

3.1 Introduction

In this chapter an overview of the Antwerp Port Authority (APA) and the different departments in which I executed fieldwork is given. Although during the period of fieldwork I narrowed my focus mainly to the dredging service department, an idea of the organization and its context is essential for their analysis. Moreover, a contextual description is an essential part of the method of zooming in and out. Indeed, according to Nicolini, “zooming in and out and thematizing the relationships between practices becomes more than a simple exercise of contextualization” (Nicolini, 2009: 136). Like different components of a ship, the different departments of the APA are inextricably linked with each other. In this story the APA is the ship which attempts to trail itself over the perpetual turbulent sea of the port of Antwerp. The operational service departments are its engine room, while the IPDB observes the journey vigilantly. Ultimately, they are responsible for a safe and healthy work environment and therefore they interfere with practices on the work floor down to the last detail.

The departments that are discussed in this chapter are ranged in a hierarchical order. On top one finds the board of directors and central management, represented by the CEO. The IDPB is a subdivision of the management, but in practice acts as a mediator between management and the operational service departments. On the ‘upper’ side, they have to deal with profits, and on the ‘lower’ side they supervise work floor practices. Further zooming in, one finds the operational service departments which are responsible for the daily operations in the port. However, first attention will be paid to the very context of this hierarchical order itself: the port of Antwerp.

3.2 Port of Antwerp

The port of Antwerp is the largest port of Belgium and the second-largest seaport in Europe.10 Its history along the Scheldt river traces back to the Middle Ages. Today, the port of Antwerp forms an indispensable link in world trade and in the provision of all kind of goods to European hinterland. Its 80-km inland location makes the port one of the most important and central hubs for logistics in Europe.

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Also, it has the largest petrochemical industrial complex of Europe. Around 150,000 people are directly or indirectly involved in activities in the port. Approximately 900 companies in the private sector are to be found in the port’s superstructure, like terminals, factories and warehouses. All these companies play an important role in the port, since they are active in the total logistic chain of transshipment and the storage, processing and transport of goods. The huge amount of companies, people and traffic in the port makes it a dynamic and vibrant place, yet also a rather complex and vulnerable place. Therefore, different economic and political players - such as Alfaport and Flemish, federal and international authorities - co-operate to ensure the accessibility, safety and ecological sustainability of the port.

3.3 Antwerp Port Authority

The huge amount of companies, people and traffic in the port makes it a dynamic and vibrant place, yet also a rather complex and vulnerable place. Therefore, different economic and political players - such as Alfaport and Flemish, federal and international authorities - co-operate to ensure the accessibility, safety and ecological sustainability of the port.

Yet, the APA is the official representative organization of the port of Antwerp.\(^{11}\) It was established in 1997 as an independent, municipally-owned company in 1997. Before this it was part of the municipality Stad Antwerpen, and managed by the Mayor, Aldermen and local council. Since its separation from the municipality - which however remains its sole stakeholder - it has its own decision-making structures and human resources policy. Therefore, in its current form the APA is able to participate in joint ventures with other companies or government departments, which gives the APA a free and flexible position to respond to rapidly evolving maritime developments. The transition from a municipally-owned organization to an independent, market-oriented actor fits within the trend of New Public Management, which entered public sector organizations from the late 1970s (Clegg, 2006; Diefenbach, 2009). As a modern variant of public administration, NPM’s core idea is to put targets, efficiency and performance to the front (Diefenbach 2009: 905). In doing so, it is assumed that organizations such as APA are able to better anticipate on dynamics in the liberal market economy.

The APA is a ‘landlord port’, implicating that it is obliged to provide the necessary port infrastructure, in most cases supported by the national government in the form of subsidies or loan guarantees (Notteboom & Winkelmans, 2001: 84). Consequently, the organization has an important role in the day-to-day operations of the port, resulting in a large range of positions and responsibilities. The promotion of the port in Belgium and abroad, maintenance of the port’s infrastructure, as well as facilitation of the activities that take place in the port are three of its most important tasks. The Port Authority manages and maintains the docks, bridges, locks, quay walls and land, and it facilitates efficient passage and safety of the shipping traffic in the Antwerp port area. Around 1,650 people distributed over 10 departments and many subdivisions are employed at the APA. Port alderman Marc Van Peel is

chairman of the Board of Directors. Managing Director Eddy Bruyninckx is chairman of the Management committee, which is responsible for the day-to-day management of the company.

3.4 Occupational Health & Safety Department

The APA is a rather big company, and although the different departments are interdependent, there also exists a considerable degree of anonymity within the company. However, there is one department which employees of all departments are confronted with on a daily basis, since it dictates the conditions related to health and safety concerning their work practices.

As a subdivision of the central management of Antwerp Port Authority, the Occupational Health and Safety Department (Interne Dienst Preventie & Bescherming, IDPB) is responsible for the supervision and improvement of health and safety at the APA. The IDPB translates legal provisions concerning safety, risks and well-being to the work floor. Issues related to health and safety at work for example encompass fire, evacuation, ergonomics and working with chemicals. Furthermore, the IDPB is responsible for the execution of annual audits, the coordination and organization of risk related courses, the development of concrete materials that raise awareness concerning safety among APA’s employees and it has an advisory role in APA’s acquisition policy. Around ten people in the jobs of prevention advisors, safety supervisors and their (administrative) assistants are employed at the IDPB. Etienne Kiekens is the manager and highest prevention advisor of the IDPB.

Since the 1st of September 2014 the Belgian legislation concerning well-being at work has changed. Psychosocial burdens like violence, harassment and sexual offences now are labeled together as ‘psychosocial risks at work’. The revised legislation has two implications for organizations in Belgium. First, the category of psychosocial risks has become more extensive, so the prevention of these risks has become more extensive as well. Second, the roles and responsibilities of the different actors at work that are involved in the prevention of psychosocial risks, like employers, (middle) managers, safety departments and counsellors have become more clarified and accentuated. In sum, psychosocial risks in general have taken in a more prominent place in prevention policies. Companies in Belgium deal with this in different ways. For the IDPB the revised legislation was - on top of the reorganizations - an extra impetus to organize a large-scale, organization-wide survey to ‘measure’ and evaluate the psychosocial risks at the Antwerp Port Authority. The survey will be held in the summer of 2015. On the basis of the results the IDPB will develop various initiatives that anticipate on the psychosocial risks in order to reduce them in the future.

Especially for the operational service department this survey appears to be of great relevance, because the employees of those departments are exposed to danger and risks like chemicals, noise and varying schedules. Moreover, the employees of the operational service departments are confronted with

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the most far-reaching organizational changes which is said to be a relevant source of psychosocial stress.\textsuperscript{14}

3.5 Operational service departments

Located amongst huge sea vessels, cranes and containers, the operational service departments are the places where the actual 'action' happens. The three main operational service departments of the APA encompass tugboat, dredging and crane services.\textsuperscript{15} Their main tasks respectively encompass the maneuvering of sea vessels, dredging works and offering different types of cranes to clients. The departments are located at different areas within the port area. The Chief Operations Officer is responsible for the day-to-day management of (nautical) operations at these departments.

The tugboat service department is responsible for sea vessels to arrive and depart in time. Since sea vessels usually are enormous in size, they need assistance in maneuvering in the relatively narrow canals. Dependent on the size and type of a sea vessel, particular tugboats are being appointed for the task. The tugboats also assist in cases of emergency, such as fire or sinking ships. The tugboat service owns a fleet of 20 tugboats of which 12 are permanently staffed and ready for takeoff. Consequently, the tugboat service department works with a 24/7 schedule. The total amount of employees at the tugboat service department encompasses 250, of which 200 work in nautical jobs and the rest in administration and maintenance. Crews on a tugboat consist of a captain, an engineer and a sailor.

The dredging service department is responsible for the maritime accessibility and maintenance of the port's maritime infrastructure. This is accomplished by the means of dredging works and cleaning activities. By nature the Scheldt river is not deep, which implicates that proper dredging work is of utmost importance to guarantee that the often huge sea vessels can enter the port. The department works with a regular work week of 5 days per week, 8 hours per day. The dredging service department owns various dredgers. Dependent on the task and size of the dredger, a dredging crew consists of a captain and several sailors and engineers. The nautical staff is complemented with the technical and administrative staff. Together they make up 90 employees.

The crane service department provides various (staffed) cranes to the other operational service departments of the port of Antwerp as well as to clients in the private sector. Types of cranes for example include fixed, mobile and floating. Services include cargo and bulk transshipment, cargo handling and mounting and maintenance works on (maritime) infrastructure. The crane service department provides its services 24 hours a day, 7 days per week. Since the amount of orders fluctuates extremely the cranes are not permanently staffed. Nonetheless clients can make last minute offers, which requires great flexibility of the employees of the crane service department. Around 90 people, encompassing crane operators, engineers and administrative staff together make up the crane service department.

\textsuperscript{14} Etienne Kiekens, personal communication, 29-04-2015
In this close-up of the context of the port of Antwerp we zoomed in further and further to eventually reach the actual research site of this study: the operational service departments. In the next chapter the process of zooming in and out is continued and applied to the topic of reorganizations, which causes trace back all the way to macro-level developments.
The Storm

Chapter 4: Reorganizations

A storm is any disturbed state of an environment or astronomical body's atmosphere especially affecting its surface, and strongly implying severe weather. It may be marked by significant disruptions to normal conditions such as strong wind, hail, thunder and lightning, heavy precipitation heavy freezing rain, strong winds or wind transporting some substance through the atmosphere. Storms generally lead to negative impacts on lives and property such as storm surge, heavy rain or snow causing flooding or road impassibility.16

4.1 Introduction

During my fieldwork experience I learned that ‘the reorganizations’ are a real buzzword at the APA. Yet what appeared as a surprise to me in the first instance, soon turned out to be not so surprising at all. People at APA are confronted with the (plans for and the consequences of) reorganizations every day. Whomever I got to talk to, all of them brought up the topic, either on their own initiative or as a response to my questions, as the following passage from an interview with sailor Jordi illustrates:

I: “how do you think safety has changed?”
J: “safety has become way better nowadays. Alcohol on board is forbidden, there’s better personal safety equipment. Those things are okay now. But I think that all the organizational changes are bad for safety.”
I: “what do you mean?”
J: “well, there has been so many changes, we cannot see the wood for the trees anymore. And most of the changes don’t make sense at all.”
I: “and how does that influence safety?”
J: “well, for example our crews got dissolved, so every day or week we are being sent to different vessels, to work in different crews. It makes it hard to work in a team, because sometimes I don’t even know my colleagues. And in shipping, no single day is the same. There’s always an exceptional situation, due to stormy weather, broken parts or whatever. And when you’re working in a fixed crew, you can handle that. But with those varying crews, it’s difficult, and I think that is dangerous.”

The reorganizations are something people feel extremely strong about. Irrespective of all the different opinions and feelings about it - on which will extensively be elaborated in the next chapter - the

reorganizations are an irreversible fact. It is obvious that various radical changes are going on, but they are not easily distinguished from each other. What I experienced in the field is that although the reorganizations are part of different change trajectories, people do not perceive them as clear-cut categories. Rather, the reorganizations are a chaotic, episodic and complex whole of events. Much like a storm, the changes are sweeping through and taking over the organization.

Marc, personnel officer explains:

“Currently, I spend 70% of my time on the reorganizations. I coach the people, and have to come up with answers to all the questions they have, although often I either don’t know the answers. People ask me where we’re going, what the future holds, where it ends. The reorganization takes place in different stages, and that evokes a lot of obscurity and insecurity. It is a long and exhausting path, and in personal conversations I notice that it affects people more and more.”

As a personnel officer, Marc is confronted with the confidential stories of employees on a daily basis. In the past months, he has observed an increase in the number of employees that consult him, and almost always their problems are related to the reorganizations.

The English word for storm derives from the Proto-Germanic *sturmaz* meaning ‘noise’ or ‘tumult’, and in my view these terms cover the substance of the events at APA perfectly. This is increased by the different elements that together make up the storm. That is, there are a lot of different stakeholders involved in the reorganizations, varying from macro-level actors such as the European Union, meso-level actors such as the Flemish government, and the affected employees on micro-level.

In sum, in this chapter I will elaborate on the plans and events concerning the reorganizations, which are to be found in the past, present and future. First, attention will be paid to preliminary causes which are to be found on a global scale. Next, I will elaborate on the change trajectory and its consequences for the operational service departments, where the actual fieldwork took place.

### 4.2 Macro-level developments: zooming out

The storm at the Antwerp Port Authority is stirred up by various developments on a global scale. 17 These macro-developments had and have a significant impact on the port sector. In the introduction I touched upon the topic of automation and related technological developments that make port labor more efficient. Yet at the same time these developments directly threaten employability in ports worldwide. In fact, the eventual disappearance of employability is a feared consequence of all the current macro-developments. 18

Other examples of such macro developments are globalization, privatization, and the financial

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crisis. Obviously, globalization is such a big macro-development that elaboration on its consequences for
the port sector deserves a thesis on its own. Therefore here I will only shortly touch upon on some of its
most crucial features and consequences of the various macro-level developments for the port sector.

The process of globalization and emergence of global corporations such as the port of Antwerp is
fueled by processes of liberation. These processes are often propelled by organizations like WTO, the
European Union and NAFTA, the growing effectiveness of international capital markets, and last but not
least by the gradual deregulation process, which undoubtedly promotes the emergence of a global
transport industry (Notteboom & Winkelmans 2001: 72). Simultaneously, however, the increasing
influence of the EU results in increasing regulatory pressure. The European Commission currently urges
the port of Antwerp to modernize its port labor. The main target of this modernization concerns the free
movement of services, which allows self-employed persons to move between member states in order to
provide services on a temporary or permanent basis. It is said that Belgium is the last country within the
EU with obsolete legislation that hinders the equality of EU citizens, and it counteracts organizational
flexibility and competitiveness.

These forced modernization plans have some serious consequences for the APA’s operational
service departments. More and more tasks are transferred to private companies to achieve fair
competition. For example, the crane service department had to sell its loved twin floating cranes Portunus
and Titanus, since it was indicated that they were not profitable anymore. Also at the dredging service
department, employees such as work planner Xander sorrowfully watch how a lot of their activities are
transferred to other organizations:

“In the past few years more and more tasks are transferred to the Flemish District and other
organizations. In the past, we were responsible for the calculations of the navigable water depths,
as well as the execution of the dredging works within the entire port area. Today we only do the
commercial berths and some calculations, so the amount of work has decreased a lot. I think it’s
sad."

Moreover, worldwide the year 2014 was characterized by the aftermath of the financial crisis,
which caught hold of the (organizational) world for a considerable period of time. Obviously managements
of many companies time and time again blame the financial crisis for all their organizational problems.
However, despite being a cliché, it is true that the crisis and its aftermath had a great impact on
companies that operate in the sector of industry and logistics. Although economic perspectives are

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19 ‘Modernisering havenarbeid is niet meer te vermijden’, http://www.gva.be/cnt/aid1566086/modernisering-
havenarbeid-is-niet-meer-te-vermijden, consulted on 30-05-2015
20 ‘Article 56 in the Treaty on the Functioning of the European Union’,
http://ec.europa.eu/internal_market/top_layer/living_working/services-establishment/index_en.htm, consulted on 15-
01-2015
good - the expectation is that the global economy will further improve in the forthcoming years - the
damage to the port of Antwerp already has been done.

In sum, the developments on a global scale have in common that they do have a serious impact on
competition and employability in the port sector. In order to remain competitive world ports have to
(re)consider their roles and activities, and port authorities like the Antwerp Port Authority must be
constantly prepared to adopt new roles in order to cope with the changing market environment
(Notteboom & Winkelmans 2001: 71).

4.3 Reorganizations: zooming in
The (re)consideration of roles and activities takes an important place at the agenda of the Antwerp Port
Authority. Indeed, its separation from the Stad Antwerpen in 1997 was intended to boost competitiveness.
As a consequence, many organizational changes have been implemented since then. Moreover, the
lion’s share of the organizations has yet to come. Besides the already implemented changes, the grand
centralization is planned for 2017. Below I will elaborate on different organizational changes, which are
provided with empirical examples.

Indeed, from conversations and interviews it appeared that employees experience the
reorganizations as an enduring and devastating course of events. Transfers to other departments, new
schedules, mergers, streamlining and demarcation: the implemented changes are plenty. Besides the
quantity of the reorganizations itself, the pace in which they were being implemented is also perceived as
problematic.

Etienne Kiekens, head of the IDPB explains:

“Changes happen all the time.. but now it is a lot of changes in relatively little time. They are like
shockwaves: rough, brute and fast. It is decided that instead of fighting war after war, one better can
fight all wars at the same time. But something had to happen, from an economic point of view. We
couldn’t compete with other players anymore. There were too many people for the work that had to
be accomplished, which had a stagnating effect on our organization’s efficiency and flexibility.”

Mr. Kiekens refers to the recent organizational changes as ‘shockwaves’. I have encountered this
terminology in nearly all conversations about the reorganizations. People talk about them as if they were
uncontrollable. Nevertheless, people also appeared to agree on the imperative to change. Some
informants referred to the former situation as ‘a holiday paradise’, some acknowledged the increasing
power of private companies that ‘like tigers are on the outlook, waiting for the right time to attack’, and
some others simply stressed that changes are ‘the common state of events’. Indeed, according to William
people are willing to participate in organizational changes, as long as employees are involved in the plans
and implementation of them. Sufficient and clarifying communication are important in this respect.
Yet according to mr. Kiekens, it appeared that

“There was a serious lack of communication. That was also the main result of the risk analysis we organized 10 years ago. Employees complained about invisibility of the management and vagueness about the plans for the operational service departments in the long term. And the management interpreted the results as a consequence of pampering the operational service departments too much and for too long.”

Regardless of the different interpretations about the reorganizations, William sticks to its opinion that changes were necessary in order for the operational service departments to survive. He cites some concrete examples, such as the scrapping of various vessels, new schedules and the radical downsizing of the crane service department. At this department, the staff is cut in half. Although these dismissed employees were transferred to other - often administrative - departments, the issue remains highly sensitive. People at the operational service departments chose for a career in shipping, not for a career behind a desk. However, most transferred people are rather satisfied with their new jobs. Human resources is the department which is responsible for the coaching and motivation of employees all through the change trajectory, contributed to this a great deal.

Paul, a confidant at human resources explains:

“The reorganizations are very complex. The transfers have cost the APA a lot of money, time and energy. Pure redundancies would have been much easier. You fire some people, they get a redundancy payment and the company can go on in its desired direction. But we chose for the human approach. We chose for clarity and job security, and we are appreciated for that.”

From many conversations it appeared that people from the human resources department provided some straws in the wind. Despite the stormy times, Paul thinks that they did have a great endeavor in their role of guiding people through the change project.

Concerning the more recent organizational changes much less consensus is to be found among the different departments and employees. This is partly due to the fact that these organizational changes go hand in hand with the consequences of the former reorganizations. At this point, people are getting tired of organizational changes and the way they are implemented, much resembling the phenomenon of change fatigue: “every initiative reaches a point where the degree of change implementation peaks and unexpected developments or resistance to change cause it to lose momentum described as the “stall point”” (Beaudan, 2006: 1).
This is comparable to what sailor Susan tells about the reorganizations:

“To be honest, I just think it’s too much. Change after change, and what’s the use? Nothing surprises me anymore. Most of the time we’re not being heard or consulted beforehand.”

Susan expresses her dissatisfaction about the (high amount of) organizational changes as well as the running of things related to the changes. She tells me that as a result, she has lost most of her job satisfaction. According to Beaudan, change fatigue typically happens in a mid-course phase (p. 1). This issue is identifiable in the present situation concerning the reorganizations at APA. Moreover, besides hitting employee’s motivation, enthusiasm and loyalty - which is characteristic for change fatigue - their very professional sense of self is wiped out. This is especially true for the new work schedules and the flex sailor system, which will be elaborately discussed in the next chapters.

However currently the most heated debates at APA are about the centralization which is planned for 2017. The central target of the centralization concerns the unification of logistics, industry and maritime services, which is aimed at better cooperation with clients and stakeholders. The centralization is part of the company's business strategy to improve its position in the port sector.\textsuperscript{22} The role of the APA is supposed to shift from a passive landlord to an active facilitator and stimulator. Being part of a 4-years business plan, the centralization should enhance the organization’s flexibility, efficiency and profitability.

Clementine, employee at the human resources department explains:

“Everything [the operational service departments] will be one place, so cooperation will be much easier. It also enhances flexibility. If a client makes a last minute offer we can comply much faster than is the case right now. So I would say that it is beneficial for all parties, for the clients, the employees and the organization as a whole..”

From the above quotation already appears that the operational service departments this implicates that they will be merged into one operational service department. Furthermore, their technical subdivisions will be dissolved and merged in one technical department. For the merger a brand new building will arise at ‘Kaai 602’. This location concerns a rather remote place within the port area, near the Dutch border. The tugboat service department is already accommodated at Kaai 602, implicating that relocation particularly applies to the dredging service department and crane service department. Compared to the other organizational consequences of the centralization the relocation might be of little interest. Yet the relocation in itself already is a heavily contested topic, as it appeared from conversations with employees and posters at the dredging service departments ironically saying: “Kaai 602? Is there a bus going to that place?”.

Besides this huge relocation the centralization will affect the organizational structure. A considerable amount of employees arguably will be transferred, and (new) managers will take up new positions. Furthermore, the reorganizations will have various practical implications, such as integration of the different operational activities and work schedules. During observations, conversations and interviews it appeared that employees at the operational service departments fear the consequences of the centralization. Feelings of stress, insecurity and ruefulness are already prevailing.

The company doctor also expressed his concerns:

"It is notable that more and more of my consultations are dedicated to [the consequences] of the reorganizations. Do not get me wrong, but it has been a while ago that people just complained about a pain in their back."

In sum, the whole of reorganizations has some serious consequences for the employees, their communities of practice and the company as a whole. These consequences as well as their effects on various forms of safety will be elaborately discussed in the next chapters. All the way from macro-level developments we will now turn to micro-level. That is, we will zoom in on safety practices on the work floor of the operational service departments, as well as focus on narratives about those practices.
The Anchor

Chapter 5: the fragmentation of communities of practice

An anchor is a device, normally made of metal, used to connect a vessel to the bed of a body of water to prevent the craft from drifting due to wind or current. The word derives from Latin ancora, which itself comes from the Greek ἄγκυρα (ankura).

5.1 Introduction

In the previous chapter we zoomed in on the reorganizations at the operational service departments. As explained in the previous chapter, the reorganizations were aimed to enhance the organization’s competitiveness, flexibility and efficiency. In this chapter, we will focus on how the reorganizations influenced the people and their practices on the work floor, paying attention to the social circumstances in particular. Indeed, according to Barley & Kunda (2001), “when managers impose new organizational structures, they invariably alter patterns of work” (p. 76). Indeed, the reverse is also true: changed work practices can run the risk to be misaligned with the organization’s goals. Therefore we will zoom on the changed organizational structures and their effects on the work floor.

In studying the impact of reorganizations with a practice lens, I analyzed the crews as communities of practice. From the previous chapter, it appeared that the reorganizations have influenced the composition of these communities of practice. Based on empirical data, in this chapter I will attempt to illustrate why the crews of the operational service departments can be labeled as communities of practice, as well as how the reorganizations influenced these communities and their practices.

In doing so I will draw upon the socio-material approach, which conceives practices as inextricably bound up with the material and social circumstances in which they occur (Gherardi, Nicolini & Odella 1998: 203). Yet social circumstances are way less explicit than material circumstances, which results in a range of different interpretations. Official institutions like the European Union and Occupational Health & Safety, for example, frame social circumstances at work as ‘psychosocial risks’ (European Agency for Safety and Health at Work, 2012; Algemene Directie Humanisering van de Arbeid, 2013). As it will appear the different sources of risks that will be described in the next part show remarkable links with the different components that make up a community of practice. The content of work, for example, refers to the complexity of the job or competencies that are required for the job. The sources of risk, therefore, can be perceived as socio-material categories that irrevocably influence the nature of work practices.

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In sum, in this chapter the impact of the reorganizations and its implications for communities of
practice is demonstrated based on the case of new work schedules at the operational service
departments. First, however, attention will be paid the socio-material categories of risks and danger at
work.

5.2 Socio-material categories of risk and danger at work
Since the 1st of September 2014, legislation concerning well-being at work in Belgium has been revised.
As a result, hazards like violence, harassment and sexual offences have gained more attention amongst
employers (Algemene Directie Humanisering van de Arbeid, 2013). Such social hazards encompass
aspects of the workplace and social contexts which have the potential for causing psychological, social
and physical harm (European Agency for Safety and Health at Work, 2012: 11). The law compels Belgian
companies to evaluate and reduce these risks on the work floor. This is considered a relevant
undertaking, since there has been observed an increase in risks and danger in Belgian companies in
recent years. It is exactly these risks that today - mostly remaining invisible - form the largest threat to the
social functioning of employees and the overall achievements of companies (Algemene Directie
Humanisering van de Arbeid, 2013: 8).

This relates to what Ferdinand, employee at the IDPB tells:

"In earlier times, people destroyed their bodies because their jobs were physically heavy. Of course,
jobs still can be heavy, especially when talking about port labor. But facilities and guidelines for heavy
work have improved. For example, crane operators control the crane from a specially adapted chair,
so that they don't have to bend their necks straightly down. So ergonomics is okay nowadays. But
social and psychological factors have been neglected for a long time, because they remain invisible
most of the time. If an employee feels sad at work, you assume that he's got troubles in his private life
or something. In this regard there's still a great deal of work to do."

It is suggested that the increase of social risks and danger at work is mainly due to the radical
changes in both the content and context of work. These radical changes encompass such things as
reorganizations or crisis situations, but also macro-level developments such as intensified globalization,
rapid technological change and demographic shifts (Sparks, Faragher & Cooper, 2001). The heavier the
requirements that derive from changes in the content and context of labor, the more unfavorable the
perception of employees concerning their jobs. Hazards and their associated risks have therefore
become a key challenge for policymakers in Belgium (Algemene Directie Humanisering van de Arbeid,
2013). For this reason, it is assumed that a better understanding of the concept of social hazards and
their associated risks is necessary in order to evaluate and reduce them effectively. The main sources of
risk encompass the organization of work, terms of employment, labor conditions, the content of work and
interpersonal relationships at work (European Agency for Safety and Health at Work, 2012; Algemene Directie Humanisering van de Arbeid, 2013).

The organization of work concerns the way in which tasks are structured and divided within an organization (Algemene Directie Humanisering van de Arbeid, 2013: 12). It also relates to the patterns of authority, and how these serve to realize the goals of the company. Risks that derive from labor organization often relate to the socio-economic context of the company and can encompass such events as a crisis situation of reorganizations. These events can cause fear for the future, and have a lot of influence on the other components of psychosocial risks.

A quote concerning the tasks and patterns of authority APA reads:

“In earlier times, there used to be more laborers than managers. Nowadays, it seems like the reverse is true. More managerial levels have been added, and on the work floor there often is a staff shortage.” (Sebastian, engineer)

Terms of employment are the parameters that influence the execution of the job (ibid.: 12). They for example encompass work schedules, type of contract and salary. Terms of employment affect the mental and physique health of employees. Uncertainty about the duration of contracts, for instance, causes a lot of stress amongst employees.

A quote from the field concerning types of contracts reads:

“There are two types of contracts within the organization: the statutory and the contractual. The older generation, which I’m part of, has a statutory contract. That is, I have more rights and privileges. If they want to kick me out they should have a very good reason. To people with a contractual contract they say ‘sorry, you’re contract is not prolonged’. That is the power of the boss.” (Anthony, captain)

Labor conditions encompass the physique efforts, exposure to noise or safety issues required by the job (ibid.: 12). Examples involve inadequate equipment availability, suitability or maintenance, poor environmental conditions such as lack of space, poor lighting and excessive noise. Labor conditions directly influence the physical and mental health of employees.

A quote from the field concerning exposure to noise reads:
“When I get home from working on this dredging vessel all day, I really cannot stand any noise anymore. The noise and the vibrations of the engine are an attack on your nerves. I repeatedly asked for a special headphone, but I didn’t get any response yet.” (Olaf, captain)

The content of work takes into consideration required competences for the job, the complexity of tasks and the intellectual or manual character of the job (ibid.: 13). Concrete risks concerning this area encompass work overload or under load, machine pacing, high levels of time pressure and continually subjection to deadlines. Just like labor conditions, the content of work directly influences the physical and mental health of employees.

A quote from the field concerning competences that are required for the job reads:

“The only problem that I encounter concerning my age are all the tasks that have to be accomplished on the computer. I must admit that I always need some more explanation and time for those things. But when it comes to shipping, I know everything by heart.” (Didier, captain)

Interpersonal relationships at work involve the social relations between employees as well as relations between employees and management (ibid.: 13). Relationships with third parties such as clients, patients and suppliers are also taken into account. Examples of negative relationships at work encompass social or physical isolation, poor relationships with superiors, interpersonal conflict, lack of social support, bullying, harassment and violence.

A quote from the field concerning interpersonal relationships at work reads:

“On my first day here, they told me that the dredging service department is like a small, affiliate family. I must admit that that is true, and it surely feels good. But the downside of that is that information ripples like wildfire, which unfortunately often is the wrong information.” (Marc, personnel officer)

These above work characteristics and their risk potential all are part of, and affect work practices. Encompassing both human and non-human factors, they can be perceived as socio-material elements that play a role in the fragmentation of communities of practice. In the next case it will be illustrated how this process of fragmentation works based on the case of the new work schedules.

5.3 Case: work schedules
Work schedules are a socio-material artefact, as well as a source of social hazards (Sparks, Faragher & Cooper, 2001; Hale & Borys, 2013). On a global scale, the reorganization of working time arrangements
is partly due to innovations in technology and industry. Yet according to Sparks et al., it is “mainly driven by employers’ demands for greater flexibility in work schedules to cover operating or opening hours, predictable peaks in labor demand at different parts of the day, week or year as well as less predictable requirements for additional cover due to market uncertainty” (Sparks, Faragher & Cooper, 2001: 493).

This was also repeatedly expressed by the COO of the operational service departments:

“We have to be there for our clients always, no matter what. Our problems have to stay our problems. The customer is king, so if that means we have to work overtime, then so be it. I don’t want to disappoint any client anymore.”

At the operational service departments, both technological innovations and more flexibility formed an imperative for the new work schedules, which are one of the most contested targets of the reorganizations at the operational service departments. The work schedules are different for every department. The dredging service department for example works in 8 hour shifts, 5 days per week, while the tugboat service department works in a compressed work week of 4 days, 12 hours per shift. Several studies found that no particular work system is favourable (ibid.: 494). However, the different work schedules do have a common leading principle which entails that neither crews nor vessels are scheduled in a fixed manner. Dependent on the task that has to be accomplished, as well as the available staff per department, employees are scheduled in a certain crew and on a certain vessel, which can change from day to day. The new work schedules cause for a lot of stress, and so employees are fed up with them, as is expressed by sailor John:

“I have to drag with my stuff every day. And it’s a lot, as you know. I feel sorry for the older employees. You know, I am still young, I can handle a lot. But still that’s the least concern. I am more fed up with the fact that the planning is very short term. I can never make an appointment with the dentist or plan a holiday. Can you imagine the impact on the employees that have a family at home?”

From these and other quotations it appeared that the new work schedules have such negative consequences as deteriorated relationships, uncertainty and a poor work-life balance. And as result of that, employees repeatedly referred to such effects as increased stress levels, increased use of medicines such as antidepressants and tranquilizers. If we follow the line of thought of such institutions as the European Union and Occupational Health & Safety these consequences can be identified as serious social hazards. Moreover, the employees fear that these consequences will get worse when the

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24 The work equipment of employees at the operational service departments consists of a helmet, a life jacket, safety shoes, a weather-resistant coat and a walkie talkie. Furthermore they are equipped with personal belongings and foods and drinks.
centralization is a fact. Indeed, the idea behind the centralization is that eventually all the operational service departments will absorb into one flexible operational service that can respond to all organizational and commercial demands.

As a source of risk and danger, the new work schedules relate to the social context in which communities of practice operate. That is, as a result of the new work schedules communities are being separated from their shared practice, which makes the fragmentation of communities of practice an explicit process.

Sailor Tom explains:

“The new work schedules are disastrous. Every day we are being sent to different vessels. Besides the fact that I often work with colleagues that I don’t know, I also have to work on vessels that I don’t know. Not very beneficial for a job in shipping.. it’s good to have superficial knowledge about everything, but at some point you want to have in-depth knowledge about one thing.”

Tom is only a young sailor, a novice within his community of practice. To acquire the professional skills that are necessary for the job, he thinks that the current way of working is not sufficient.

Indeed, Tom cannot really learn and master the practices. This relates to the concept of knowing-in-practice, a concept that is inextricably linked to communities of practice (Lave & Wenger, 1991; Wenger, 1998; Brown & Duguid, 2001). Experts - that is, experienced members of the community of practice - have a long and tacit experience to cope with the diversity and the complexity of practices (Hale & Borys, 2013: 215). Novices like Tom do not have this experience yet, they still have to learn and internalize the routines. These routines are tacit and context-bound most of the time, which implicates that in order to become an expert, a novice like Tom will only learn by participation and engagement in the community of practice. Knowing-in-practice, therefore, is much more than acquiring technical skills and knowledge: it is about a set of relationships, about engagement in the community of practice (Wenger, 1998).

In the next vignette this statement is illustrated more extensively:

Didier is a captain at the dredging service department. He is a cheerful man in his sixties with an admirable passion for his job. During the interview that takes place on one of the dredging boats, he appears to manage both interview and the supervision of the boat. Sometimes, when he hears a loud noise, he gets up from his chair and takes a look outside to check what is going on. Every time when he takes back his seat he continues his story as if he is not disrupted at all. After some anecdotes about his children (‘not all of them in seafaring, but fortunately all successful in their lives and careers’) he turns to the present. Didier tells me that he will reach the retirement age in a few years, about which he has got mixed feelings: "I hope the few vessels that are left over nowadays, will remain functioning. Then it would be a pleasure to work some more years. But you know, there is always something wrong. I used to work
on one and the same vessel, and in a fixed crew. That was a joyful time. But now with the new work schedules it’s a different way of working, you know?” According to Didier, the problem with varying crews is that there are no problems if everything is working as usual. But on a ship things never work as usual. There is always another issue. According to Didier, with a fixed crew, you can handle those issues: “if there is something wrong, I can read from their expressions what the problem is.”

Didier and the other members of the crew used to work as a community of practice, which are based on joint enterprises, mutual engagement and a shared repertoire that members have produced over time (Wenger, 1998). The joint enterprise here consists of all the activities on the vessel, as well as of the negotiation about those activities. According to Didier, with an experienced crew, negotiation is a rather implicit matter. The sound of the vessel’s engine or the gestures of colleagues should be enough for the crew to know what is happening in the moment. The mutual engagement implicates that the practice resides in the community, and thus that the captain, sailors and engineers are complementary and interdependent. Their mutual relationships are created around the activities on the vessel, and vice-versa, the mutual activities define the community. The shared repertoire of the community consists of all their material and non-material resources, such as routines, sensibilities, jokes, gestures, tools and nautical jargon.

Indeed, much of the work is tacit and situational, therefore knowing and practice are tightly linked. Indeed, communities exist by the virtue of a shared practice in which this tacit and situational knowledge is embedded. Consequently, knowing and carrying out the ‘practice’ - that is, all the activities on and around the vessel - and reading body language and facial expressions is something inherent and natural to communities of practice. To change the composition of a crew - whether it is every day, week or month - is to fragment a community of practice. In this process of fragmentation, the specialist, tacit and situational knowledge that characterize the community of practice is diminished. Remember the introductory quote of this chapter: an anchor connects the ship with the bed of water to prevent it from drifting due to wind or current. To take away the anchor from the ship is to take away the shared practice from the community of practice. The ship will drift away; the community of practice will fall apart.

In sum, based on the case of the new work schedules I made an attempt to illustrate that the socio-material circumstances in which practices occur are not only about the rather formal categories of risks and danger at work. They also relate to feelings of social belonging. In this process of belonging, the community of practice can serve as a decisive factor for positive perceptions of safety. According to van Steden et al. (2010) we often speak of negative safety. It is less common to speak of positive safety which is a form of safety that is inextricably linked to the idea of the community. Communities offer a sense of belonging to and being embedded in something. Yet through the fragmentation of communities of practice, this very sense of social belonging disappears. In the next chapter, it is discussed how this
process of fragmentation influences the very safety of work practices themselves.
The Lifebuoy

Chapter 6: (un)safe work practices

A lifebuoy is a lifesaving buoy designed to be thrown to a person in the water, to provide buoyancy and prevent drowning. They are carried by ships and are also located beside bodies of water that have the depth or potential to drown someone.25

6.1 Introduction

In the previous chapter the impact of the reorganizations on communities of practices was explored, which were principally related to social circumstances. In contrast with these social circumstances, for an outsider, the material context in which work practices occur can be better observed. If there lies a crooked paving stone on the street for example, somebody can stumble upon it and get injured. It is obvious and even visible that this is an unsafe situation. The same applies to life buoys: they are material instruments that can be used to prevent from drowning and thus are an enhancement of safety. However, there are also situations in which (un)safety is not so easily displayed, especially for an outsider (like me). However, people that are involved in such situations - or practices - can judge whether a practice is safe or not, since they are confronted with (un)safe situations on a daily basis.

However, also within groups of experts opinions concerning (un)safe work practices and how to improve them vary. The ‘designers’ of work and safe working practices, such as employers and regulators have different perceptions of and narratives about safety than the actual ‘operators’ of work and safe working practices. That is, as communities of practice people on the work floor have to practice safety. This results in conflicting narratives, which are illustrative for the gap that exists between the ‘designers’ and ‘operators’ of work place safety (Collinson, 1999; Rooke & Leslie, 2005; Hale & Borys, 2013). This for example becomes clear when it comes down to personal safety equipment. Although employees recognize that wearing the equipment can prevent a lot of injuries, in some instances they also experience it as unsafe.

Sailor Susan explains:

“In my opinion, helmets are such uncomfortable things. I’m always struggling with it. That can be dangerous when for example we’re in the midst of an operation and the weather is tempestuous. Then I really need to concentrate, and not be bothered with a stupid helmet that does not fit properly. By the way, if a weight of 200 kilos falls on my head, I’d be dead anyway.”

In this chapter we will zoom in on the underlying dynamics of conflicting narratives. These are about safe work practices themselves, but also about the transmission of knowledge about those practices. As it appeared in the previous chapter, recent organizational changes have influenced these work practices. In this chapter we will further zoom in on this process.

First, we will zoom in on the work practices of the department of Occupational Health & Safety (IDPB). Given the grand centralization in 2017, besides its regular activities the IDPB currently works on unification and standardization of its safety policies. These should serve as the building blocks of an organization-wide safety culture. However, in drawing on the literature and empirical data, it appears that controversies arise concerning the establishment of such a safety culture. Second, I will illustrate these controversies based on a case concerning tugboat crews. Lastly attention will be paid to the flex sailor system, which is perceived as a direct threat to safe work practices by the practitioners.

6.2 Safety: the regulators and regulations

In chapter 3 I shortly introduced the Occupational Health & Safety (IDPB) and its main activities. When talking about safety issues, one cannot avoid this department and its activities, which concern all issues related to safety and the prevention of accidents in particular. The IDPB is a department which every Belgium company is legally obliged to have. Its core task is to implement legal provisions concerning health and safety in policies on the work floor. In this sense, it is the top-down safety 'regulator': the rules that it designs “are to be documented in manuals, databases, made available to the workforce, incorporated in training and signed for to signify intent to comply” (Hale & Borys, 2013: 211).

Besides its administrative and regulatory tasks, the IDPB at the Antwerp Port Authority increasingly is developing pragmatic initiatives related to health and safety on the work floor. This is partly the result of a tragic accident that happened at the crane service department three years ago, in which three crane operators lost their lives.

According to Etienne Kiekens, head of the IDPB

“The accident caused for a big shock within the entire company. Immediately the topic of safety became a top priority for the management. Ever since there has been a radical increase in safety awareness on all organizational levels. And I think the IDPB has done a great job during the aftermath of the accident. We were able to prove to the labor inspection that all safety protocols were followed up, and thus that APA had no guilt in the accident. So we got appreciated way more than before, and we have been rewarded with more financial means for our activities. And I must say, that was necessary, because the APA is a complex company. We have a very hierarchical structure and a lot of different departments, each with its own structure. It is rather difficult to implement safety protocols and raise awareness about safety on a central level. Now that we’re having more money and more people, we are able to do a better job.”
Examples of some of its most fruitful initiatives and activities are the *Safety Flash*, advancements in personal safety equipment and more emphasis on education and certificates.

The *Safety Flash* is a bimonthly issued pamphlet that is dedicated to particular themes related to safety. Every two months another safety issue is highlighted supported by easily readable chunks of text and pictures. In the safety flash of October 2014, for example the topic of commuter traffic safety was highlighted. It showed the facts and figures about accidents in commuter traffic and provided suggestions and reminders to participate safely in commuter traffic. The pamphlet is distributed all over the company. I encountered it really everywhere: in canteens and meeting rooms and on desks and lunch tables. A lot of people I got to talk to indicated that they always read the safety flash. In this sense it reaches more people than a comprehensive newsletter that disappears in people’s e-mail boxes.

Concerning personal safety equipment there has been made some considerate advancements related to quality and availability. Obviously, solid and non-skid shoes with protective toe caps are important for port labor, and the same applies for life jackets. Whenever employees need a new helmet or new shoes, they get it rapidly. Wearing personal safety equipment is compulsory for all employees that are involved in a task, whether it is on a vessel or on the quayside. The supervision on this rule is strict. Whenever I went to one of the operational service departments, the safety supervisors at the IDPB jokingly urged me to see if the employees were wearing all their equipment, which was not always the case. As an intern from the IDPB and therefore a ‘role model’, I had to wear all the personal safety equipment every time I boarded a vessel, whether it was during an operation or not (under the guise of better safe than sorry).

The IDPB also invests a lot of time, energy and money in education and certificates, such as VCA diplomas and International Safety Management (ISM) certificates. The VCA diploma stands for Safety, Health and Environment. Employees of companies that work in a high-risk environment (such as transport or port labour in the case of APA’s operational service departments) must be in possession of such a diploma. VCA encompasses knowledge of such issues as the applicable legislation and regulations, how to recognize unsafe situations and actions, and the implementation of measures intended to prevent accidents.26

ISM provides an international standard for the safe management and operation of ships as well as for pollution prevention.27 From 1998 onwards the code has become compulsory for companies operating in the maritime sector.

Captain Didier explains:

“The achievement and preservation of ISM certificates requires a lot of time. Too much, sometimes. And some things are just silly, for example the labelling of every item of our technical equipment. I prefer to spend that time on learning my crewmembers something new.”

However, the certificates are crucial for the reputation of companies like the Antwerp Port Authority, in that they provide an explicit mechanism of trust in international environments (Drori, Meyer & Hwang, 2006: 137).

In sum, the above technical means are crucial in the prevention of accidents and the general improvement of, and awareness about safety. Nevertheless, concerning mr. Kiekens these means are part of still a rather fragmentary approach to safety. In preparation for the centralization, therefore, the IDPB aims for a general safety policy. This policy, which encompasses standardized rules and protocols, should serve as the fundament of an organization-wide safety culture.

6.3 The integration of safety cultures

The centralization of the operational service departments of APA should contribute to the establishment of such a safety culture. Drawing on the literature, however, the establishment of a universal safety culture appears as something precarious, if not impossible. That is, opinions concerning safety and ways to keep and improve it vary. This is especially true for communities of practice, which are defined by the shared manner in which they do things and interpret things (Gherardi, Nicolini & Odella, 1998: 204). Indeed, as was it stated in the previous chapter, besides - and because of - sharing a particular practice, communities of practice develop a coherent outlook on the world (Brown & Duguid, 2001). Perceptions and narratives about, and practices of safety are part of this outlook. In order to keep track of safety, as well as to improve it, agreement about it is required within the community. This implicates that there exists no such thing as one overarching safety culture, but that there are as many perceptions and social constructions of safety as there are communities of practice. People’s interpretations of safety varies enormously according to their viewpoint or community of practice. This is illustrated in the following vignette, which is about the plan to reduce the tugboat crews from three to two members.

Due to a controversial organizational change that was supposed to be implemented recently, times have been crazy at the tugboat service department. The organizational change encompassed the plan to reduce the number of a regular tugboat’s crew from 3 to 2 members. This would imply that the sailor becomes redundant and that the captain and engineer together become responsible for running the tugboat. In the eyes of the employees at the tugboat service department this adjustment was incomprehensive, even insane: what would happen if one of the two passes out? Neither the captain nor the engineer can leave his place - that is, the steering wheel and the engine room - which according to the employees would be extremely dangerous. Although the plan was postponed, employees often expressed their concern about it. From their practical experience, they cannot imagine running a tugboat without a sailor.

On the 3rd of March I accompanied a crew during one of its operations. It had to tow and to push a huge cargo vessel all the way through several floodgates. Such vessels cannot move themselves in the narrow canals of a crowded port. I am being told that for that reason tugboats are strongly built and
powerful for their size. I was amazed by their delicate manoeuvring, which sometimes concerns not more than just a few centimetres. Such a small boat is able to push and tow a huge vessel, but that does not mean that it is easy. According to the crewmembers - captain, sailor and engineer - the success (safety) of an operation relies on cooperation between them. The captain steers, the engineer takes care of the engine, and the sailor sees whether the vessel should move port side or starboard. Apparently, this cooperation depends on a non-verbal routine since words are barely used. Perhaps it is for this reason that employees cannot comprehend why the management would scrap the job of the sailor. According to them that measure would imply a direct and major threat to on board safety. The management framed the issue differently. From their perspective, the possibility to run a tugboat with 2 instead of 3 crew members signifies a technological advancement. They hired several agencies specialized in safety issues to investigate the possibility to run a tugboat with 2 members. Based on their observations and calculations, they concluded that it would be a safe opportunity. Likewise, the management referred to the Port of Rotterdam where crews of tugboats already consist of 2 members. Some adjustments to the somewhat outdated tugboats would be necessary, but eventually the job would be more efficient and modern.

These divergent perceptions about what is safe or not derives from different logics (Gherardi et al., 1998: 205). The employees derive their knowledge from practical experiences, while the management’s statement is based on calculations and protocols. Besides these different substantive arguments, they also use different rhetorical styles. Indeed, these styles derive from different folk terms or narrative styles, referring to the language that is used by the people within a certain cultural domain or subculture (Dalton, 1950; Spradley, 1980). Within these cultural domains other categories of meaning apply, which results in different cultural behaviours, artefacts and knowledge (ibid.: 88). Each subculture presents its own appearances, behaviors, knowledge, artefacts and narrative styles. For example, some employees of the operational service departments look like traditional sailors as you know them from images in popular culture: big, tough and decorated with a lot of tattoos and golden necklaces. Their cultural domain is different from that of COO, who always wears a suit and has a proper haircut. 28

This relates to the existence of multiple safety cultures within an organization, like that of the different operational service departments at the APA. The management and the employees are part of rather antagonistic safety cultures. Indeed, in the social reality of organizational life the employees and the management deal with different logics and conceptual frames in handling practical problems (Gherardi et al., 1998: 205). Based on their position, knowledge and experiences both the employees and the management socially construct safety in a certain way. Consequently, the issue about the number of the crew can be perceived as a struggle between different safety cultures. The establishment of an organization-wide safety culture (in which work practices are unified and standardized) therefore invokes contradictions.

28 This is part of a passage which was used for the course Research Lab, Assignment 4, Marie-Claire Troost, 27-03-2015.
6.4 Case: flex sailor system

Every community of practice has its own safety culture in which safe working practices take place. According to Gherardi et al. “a safe working practice is produced by engineering heterogeneous elements - knowledge, materials, relations, communications, and so on - within a community of practice” (ibid.: 204). Some of these elements are explicit, such as materials. In the case of the operational service departments at the APA that would be vessels, safety protocols or the organizational hierarchy, for example. Yet even more elements are implicit, or tacit, such as contextual routines, ad hoc solutions and practical knowledge. These tacit elements are acquired through an “accumulation of experience that is depicted as situated, locally adapted, explained and justified” (Hale & Borys, 2013: 216). It is complicated, or even impossible, to transfer such tacit elements, which I will aim to illustrate based on the next passage from my field notes.

Today I accompany a crew during an operation on the Brabo. The Brabo is an enormous and impressive vessel that is situated at the dredging service department. I’ve been told that it is able to carry 800 ton. The glass cabin, from which I do the participant observation, is situated at a height of about fifteen meters. In the cabin I accompany the captain and crane operator. The captain and crane operator are communicating with a few sailors that are on the deck below, by means of gestures and walkie talkies. I do not understand anything of what they are talking about since they speak in nautical jargon. The crew is just about to start a task with the crane: they have to pick up a heavy object from a vessel and drop it another vessel. I have been told that it is a rather simple and short task, but all tasks that are done with Brabo are quite hazardous since every incorrect act can have devastating consequences. I remember mr. Kiekens told me about the accident that happened at the crane service department a few years ago.

When the task is about to start, the captain and crane operator smoothly switch from informal chit-chatting to serious concentration. Pretty soon the crane operator starts to yell at the sailors on the deck below, and then turns to me while saying: ‘look, this is exactly what I mean! They just don’t know what to do, I have to tell them everything!’ He is referring to the laborious cooperation with the other members of the crew on which he elaborated earlier this morning. He grabs a binocular, looks at what is happening on the deck, puts it away again and starts to make fierce gestures. In the meantime the captain that sits next to the crane operator shakes his head and sighs. The crane operator continues to express his dissatisfaction about the sailors while I’m watching this notable scene.29

With ‘them’, the crane operators refer to the so-called flex sailors that work along the principles of the flex sailor system. The flex sailor system implicates that sailors switch between the dredging service department and tugboat service department every 3 months. In practice it often turns out that they have to stay at the tugboat service department for 6 months because that department has a staff shortage. When they return to the former department and have to work on the Brabo, problems arise.

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29 This is an adapted version of the original passage which was used for the course Research Lab, Assignment 1, Marie-Claire Troost, 27-03-2015.
Work practices on the Brabo form a controversial topic: informants repeatedly stressed the complexity of the vessel. Its complexity concerns its size, its power, and its many buttons, levers and winches which all have a particular function, which makes it a pretty staggering whole. Almost needless to say, due to its power - it is able to cope with thousands of tons - every single wrong move can be devastating. Moreover, it is a huge vessel, which makes (non)verbal communication on a distance quite a challenge. In the eyes of employees that have to work on the Brabo, all these complexities make it crucial that they have solid knowledge about and experience with its functioning. Yet the current flex sailor system does not allow employees to acquire this knowledge and experience. Consequently, the flex sailor system appears to have some serious disadvantages for the people that are part of it, such as sailors, or of have to deal with it, such as captains. Indeed, there are captains that refuse some flex sailors because they think that the boys lack the capabilities that are necessary to execute practices in a safe manner.

According to Lave & Wenger (1991), the ability to undertake larger or more complex activities and projects through cooperation requires the facilitation of relationships and trust. Just like the new work schedules that were discussed in the previous chapter, in its current form the flex sailor system does not facilitate these relationships and trust.

Moreover, the work practices of unexperienced flex sailors do not meet the safety requirements, as the following quote of captain Gustave for example illustrates:

“Unfortunately sometimes we just have to deny a sailor because he’s just not capable enough. Then I don’t trust him, you know? But then, I have to say that the sailors cannot help it. The management just has to facilitate more training possibilities. I will keep insisting on it. Things are different here than at the tugboat service department, you know? On the Brabo, every crewmember is involved in the task we’re doing, from beginning to end. So sailors have to know precisely what they are doing with their left and right hand. And right now, that is certainly not the case with some flex sailors.”

The system is experienced as counterproductive for the transmission of practical knowledge about safe working practices. Practical knowledge concerns the knowledge that is inseparable from the practice, and is therefore difficult or perhaps even impossible to transfer (Lave & Wenger 1991; Brown & Duguid, 2001; Orr, 2006). Rather, it is achieved through situated learning, which involves that novices learn by doing. Yet due the current system, flex sailors never really become member of a community of practice. They do not share the necessary communal resources - routines, sensibilities, vocabulary and styles - which the other practitioners have produced over time (Hale & Borys, 2013: 215). As a result, the flex sailors remain unfamiliar with the vessel and the ways of working.

This is not only noticed by captains who supervise the flex sailors, but also affirmed by the flex sailors themselves, as the following quotation of flex sailor Dirk illustrates:
“A few weeks ago I was scheduled on the Brabo. It is one of my favourite vessels to work on. But a few weeks ago there was a fire. And that caused for a quite stressful situation, because I didn’t know where to find the fire extinguishers. And I knew that the fire was in the engine room, but I couldn’t find the entrance to it. People were in panic, I was in panic.. If I was a fixed crewmember of the Brabo I would have known what to do. Fortunately, nobody got injured, but the damage has cost a lot of money. I don’t want to know what would have happened if the fire would have come into contact with oil or something. We would have lost our people..”

Obviously, there are formal protocols and ways of training which inform employees about fire and other emergencies. Such protocols and formal channels of knowledge are necessary, because in dangerous work environments “jobs are too complex for people to remember the steps, or to work them out in time, especially in emergency operations” (Hale & Borys, 2013: 208). However, both captains and sailors expressed that these protocols and trainings are insufficient to meet the needs to work safely on the Brabo, because they are limited to text. Yet work practices are dynamic, cumulative and varied. That is, one can only learn how to deal with exceptional situations by experiencing them. Within their communities of practice, members have developed ways to cope with the diversity and complexity of reality. The most important way for novices to master safe working practices is to engage in a community of practice. Indeed, people cannot ‘learn’ safety from a safety culture: rather, they learn safe working practices (Gherardi et al., 1998: 202).

In sum, in this chapter I have made an attempt to illustrate that learning and knowing safety is a social and contextual competence, and that this has been stagnated by the recent implemented flex sailor system. Just like the new work schedules, the flex sailor system fragments communities of practices, which appears to be threaten safe work practices. After all, how can one save somebody’s life with a lifebuoy when one does not know what to do with it?
Discussion

7.1 Controversies: (safety) culture and changed work practices

Increasingly, organizations pay attention to the fact that safety involves more than just material aspects. In the enhancement of overall safety, besides all kind of technical measures such as risk analysis assessments and evaluation criteria, employers strive for a widely held safety culture. Such a safety culture is aimed at creating more safety awareness as well as safe behavior amongst employees. Indeed, a safe organization is "an organization with a caring attitude and which promotes appropriate, realistic and viable working practices and rules relative to potential sources of danger" (Gherardi, Nicolini & Odella, 1998: 203). By all means, the intentions to establish a corporate safety culture are undoubtedly good, and policy that raises awareness about safety is crucial in dangerous work environments of which the port of Antwerp is an example. It therefore appears to be comprehensible that the management of the Antwerp Port Authority wants to integrate the different operational service departments as well as their safety policies into one location in 2017.

However, the management of APA deals with different communities of practice, and therefore with different safety cultures. The existence of multiple safety cultures hinder the possibility to integrate these into one overarching safety culture since people’s interpretation of safety varies enormously according to the safety culture which they are part of. They absorb and are being absorbed in their ‘culture of practice’, which includes “an increasing understanding of how, when, and about what ‘old-timers’ collaborate, collude and collide, and what they enjoy, respect and admire” (ibid.: 204). Indeed, each safety culture is based on its own principles, beliefs and values. The establishment of a universal safety culture, therefore, appears as something precarious, if not impossible.

The concept of culture in all its forms, such as ethnic, national or organizational, always appears to invoke ambiguities. There are countless interpretations of culture, ranging from weak or strong, to positive or negative (Pidgeon, 1991; Martin, 1992). Even within a so-called culture, agreement and conflict about that culture constantly alternate amongst its members. Indeed, culture is not a monolithic, static phenomenon. Instead, it is dynamic, ambivalent and subject to people’s sense-making processes. Therefore, there is no such thing as a coherent (safety) culture. Rather, there are always multiple (safety) cultures. Yet another problem that arises concerns that people cannot learn safe work practices from these safety cultures. Instead, they learn and know about safety by means of the practices they are involved in. Safety related knowledge for a great deal is based on tacit knowledge and skills, and is therefore difficult to transfer to novices, as was demonstrated based on the case of the flex sailor system. Knowledge about safety derives from the practice, and therefore cannot be considered without it.

In sum, several developments that were discussed in this study have revealed controversies. Major changes in the global port sector for the Antwerp Port Authority formed an imperative to implement organizational changes.
According to Barley & Kunda (2001),

Work and organization are bound in dynamic tension because organizational structures are, by definition, descriptions of and templates for ongoing patterns of action. When managers impose new organizational structures, they invariably alter patterns of work. Conversely, when the nature of work in an organization changes, perhaps because of new technologies or markets, organizational structures either adapt or risk becoming misaligned with the activities they organize. (2001: 76)

At the operational service departments, these changes have changed the very nature of work practices themselves. Ultimately, they have fragmented the communities of practice. This is perceived problematic by their members for several reasons. First, based on the new work schedules it was demonstrated that the fragmentation of communities of practice has result in a decrease of job satisfaction and an increase of (social) risks, such as stress and illness. Second, in the process of fragmentation, contextual and tacit skills and know-how are diminished, as was illustrated based on the case of the flex sailor system. Since these skills and knowledge are necessary in practicing safety, problems arise. This should be taken into account concerning plans to standardize work practices and the unification of safety policies. Many historic examples have demonstrated what can happen when knowledge is standardized and local and contextual know-how is neglected.

7.2 Fostering communities of practice

On this matter, I would like to draw on James Scott’s revelatory concept of *mētis*, which is a Greek word that is often interpreted as ‘deep knowledge’. It implicates ”a wide array of practical skills and acquired intelligence in responding to a constantly changing natural and human environment” (Scott, 1998: 313). In his influential work *Seeing Like a State*, Scott discusses several historical cases in which large-scale schemes to improve the human condition have failed, because the designers of these plans neglected the value and indispensability of *mētis*. Obviously, these large-scale schemes took place in the context of high-modernism. The central belief of this ideology encompassed the opportunity to apply scientific laws in the design of society. These laws were based on scientific characteristics, such as standardization, rationalization and legibility (Drori, 2006). An example of such a failed scheme concerns agriculture in West Africa. Scott describes how the “simple “production and profit” model of agricultural extension and agricultural research has failed in important ways to represent the complex, supple, negotiated objectives of real farmers and their communities” (1998: 262). According to Scott, in their assistance with agricultural practices in West Africa, the Western agricultural experts prioritized their own rational system of ‘monocropping’. Eventually, this monocropping resulted in bad crops, ecological devastation and famine (ibid.: 292). If the experts would have paid attention to local skills and know-how, they would have known
that farmers in West Africa work according to the principles of ‘polycropping’, which implicates that irrespective of weather, soil and fertility conditions, at least a few crops would survive (ibid.: 266).

As such, the concept of métis is comparable to the tacit knowledge and skills of the communities of practice at the operational service departments, which is based on coping with the diversity of reality for years. Practitioners on the work floor have learned to deal with safety through an accumulation of experience which is situated, locally adapted, explained and justified (Hale & Borys, 2013: 216). Obviously, the tacit is what we take for granted and so tends to fade into background (Wenger, 1998: 47). However, this neglect of tacit knowledge might influence safety in a negative way. In this light, Rooke & Clarke (2005) argue that in order to enhance safety, initiatives should make use of experimental, local knowledge to fully address hazards (p. 2).

Concerning safety related knowledge, from my view the initiatives (concerning organizational changes) of the Antwerp Port Authority should acknowledge three assumptions concerning the situatedness of this knowledge, or ‘knowing-in-practice’ (Wenger, 1998: 48). First, on the individual level acquiring knowledge about safe work practices is about engaging in and contributing to the practices of communities. At APA, the flex sailors can be perceived as novices that still have to learn and to master safe work practices. This requires cooperation with the communities of practice, which form the second level. On the level of the community, knowing and mastering the practice is an issue of refining that practice and ensuring new generations of members. In this respect, in particular the captains are important: as the experienced experts on board they have to coach the flex sailors. Third, on managerial level knowledge about safety is an issue of sustaining the interconnected communities of practice through which an organization knows what it knows and thus becomes effective and valuable in a safe organization. That is, by sustaining communities of practice, the management facilitates the process of learning and mastering safe work practices, and thereby it enhances the organization’s effectiveness (Wenger, 1998; Brown & Duguid, 2001).

Consequently, since the reorganizations at the Antwerp Port Authority are directed at boosting the organization’s efficiency, flexibility, profitability and competitiveness, communities of practice should be cherished. A suggestion for the management therefore would be to look at practices on the work floor and to acknowledge the local skills and know-how of employees. Fundamental human knowledge and skills such as creativity, ingenuity and ability are indispensable when it comes to safety. Therefore, in my view, these skills and knowledge should be taken into account in the design and implementation of organizational changes, since (technological) developments such as standardization, unification, and automation have their limits.

7.3 Limitations and suggestions for further research
The reorganizations are a contested topic at the APA. During fieldwork the topic invoked a lot of emotions and frustrations amongst employees. It was therefore sometimes difficult to interpret whether employees really thought that a certain change formed a threat to safety, or that they ‘simply’ did not want to
participate in the change. Although three months of fieldwork is a considerable period of time, it is not enough to get to know about all the organization’s members - mostly hidden - interests and sensibilities.

Indeed, safety in itself is a complicated issue to study, which already appeared from the existence of multiple perceptions and narratives about safety. Therefore I employed the definition of safety as “an emergent property of socio-technical system, as the end product of a process of social construction involving people, technologies and texts assembled into systems of material relations” (Gherardi, Nicolini & Odella, 1998: 203). In my opinion, this definition acknowledges the ambiguity of safety. It also refers to the socio-material approach, which conceives practices as inextricably bound up with the material and social circumstances in which they occur. Indeed, social and material elements together reinforce the negative effects of organizational changes, of which the new work schedules and flex sailor system are examples. A suggestion for further research would be an in-depth investigation of the movement of social and material elements. This movement concerns the model of translation, and can offer us insights about employee’s local interpretations, sense-making processes and active identity positioning within the organization (Alvesson & Sveningsson, 2008: 29). Indeed, according to Orlikowski, since practices are always and everywhere socio-material, “we need perspectives that are grounded in ontological and epistemological sensibilities that take seriously the socio-materiality of organizing” (2007: 1445).

This also has implications for the bandwagon of practice-centered studies (Corradi, Gherardi & Verzellonii, 2010). These authors state that since there has been an extensive proliferation of practice-centered studies, their epistemological and ontological underpinnings move in different directions. They for example refer to the fact that practices at the one hand represent a kind of practical and hidden knowledge, and on the other hand connotes being something transferable, teachable and reproducible (p. 267). I also encountered this problem during gathering and analyzing my data. That is, in the field practices appeared as tacit and linguistically inexpressible phenomena. The decision to represent practices in one or another way, has epistemological and ontological consequences. This also applies to the very coming into being of the concept of community of practice (Thompson, 2012). It would be interesting to see the results of research that perceives practices more explicitly.

However, I think that both practice-centered studies and the concept of community of practice have in common that they represent a non-rationalist view of organizing, learning and knowing. Moreover, it should be emphasized here that practices are not just what people do, but that they always are interwoven with power (Ortner, 1986; Geiger, 2009). In this light, it would be interesting to further research how (un)safe work practices violate the social order of organizations. Indeed, serious disasters as well as minor work accidents say something about the (problems within) organization’s management and hierarchy (Gheradi et al., 1998: 205).
Conclusion

At the Antwerp Port Authority, two developments appear to be at odds with each other. On the one side, the organization aims to improve the safety of work practices. On the other side, reorganizations negatively influence work practices, resulting in a degradation of safety. The purpose of this study was to explore these apparently antagonistic developments, based on the following question:

How do safe working practices change against the background of reorganizations at the Antwerp Port Authority?

The Antwerp Port Authority is occupied with the continuous improvement of safety. It is for this reason that, as well as in preparation for the grand centralization in 2017, the organization strives for the establishment of a safety culture at its operational service departments. This overarching safety culture in particularly concerns the standardization of work practices. However, it appears that there are as many safety cultures as there are perceptions and narratives about safety. These perceptions derive from different logics and conceptual frames. The safety knowledge of people on the work floor principally derives from practical experiences, while the safety knowledge of regulators derives from calculations and formal protocols. Indeed, the community and its knowledge derive from its practices and cannot be considered without it. Consequently, the existence of conflicting narratives about safety hinder the establishment of an overarching safety culture.

Moreover, the APA aims to quantify the influence of the reorganizations on safety at the operational service departments by means of an organization-wide survey. The goal of the survey is to provide insights in, and anticipate on the negative effects of the organizational changes. The various organizational changes are directed to boost the APA’s competitiveness, efficiency and flexibility. Considering the effect of the organizations, it appears questionable whether these goals will be achieved since two of the most drastic organizational changes - the new work schedules and flex sailor - have resulted in the fragmentation of communities of practice.

Based on the case of the new work schedules, I illustrated how the process of fragmentation works. The new work schedules implicate that the composition of a crew, as well as the vessel on which they are scheduled, can vary from day to day. As a result, communities of practice got scattered over the different operational service department of the organization. The new work schedules have a negative impact on socio-material categories of risk and danger at work, such as the organization of work, the content of work and interpersonal relationships. That is, due to the new work schedules, the very building blocks of communities of practice - their joint enterprise, mutual engagement and a shared repertoire - have been diminished. This has resulted in a negative identification of employees with their jobs, as well as inadequate satisfaction about those jobs. Furthermore, the fluctuating work schedules hinder the transmission of safety related knowledge. For a great deal, practices in shipping are tacit and context-
bound, and therefore can only be learned by doing. That is, knowing-in-practice is based on participation and engagement within a community of practice.

Based on the case of the flex sailor system, it was illustrated how in the process of fragmentation implicit knowledge, skills and routines are lost. The flex sailor system implicates that flex sailors switch from department every now and then, depriving them from really knowing and mastering practices. This is perceived problematic by the communities of practice, since these tacit elements are crucial in practicing safety, especially when it comes down to complicated and dangerous tasks. Indeed, for a great deal communities of practice are based on these tacit elements through their often long-standing experience with coping with the diversity of reality. In their role of novices, the flex sailors never really become a member of the community of practice, because they lack the often tacit knowledge and skills that are necessary to accomplish complicated and dangerous tasks. They are not enabled to speak, act and improvise in the same ways as the expert members of the community of practice. Indeed, they are not able to carry out work practices in a safe manner.

Consequently, the reorganizations and the improvement of safety therefore appear to be at odds with each other. According to Geiger (2009) practice-centered studies should focus on the deeply embedded processes of practices. This is especially useful when conditions are characterized by conflict and breakdowns, of which the organizational changes and their effects on safe work practices are an example. At the operational service departments of the APA these conflicts and breakdowns have their origin in macro-level developments, which have a considerable impact on the global port sector. The APA responds to these developments through the implementation of some radical organizational changes. On micro-level, at the operational service departments it appears that these changes result in the fragmentation of communities. These communities of practices - and their rich repertoire of practical knowledge and skills - have a considerable role in the preservation and enhancement of safety.

In sum, inspired by the practice-centered method of zooming in and out (Nicolini, 2009) I aimed to bridge the gap between macro-level structures and developments, the reorganizations on meso-level and the communities of practice on micro-level. Although there have been numerous studies that explored the influence of institutional and organizational structures on work practices, none of these studies investigated how such structures fragment communities of practice. In this study it appeared how the fragmentation can revert safe work practices into unsafe work practices, because the specialist, tacit and situational knowledge that characterize the community of practice is diminished.

Indeed, the engineering of safety involves both human and non-human elements. Throughout history perceptions concerning the risk and indispensability of human behavior have alternated. Today, taken into account such processes as automation and standardization, it appears that in numerous professional sectors the role of human behavior increasingly becomes reduced to a risk factor. The question arises what will happen to safety in a variety of professional sectors when people’s creativity,
ingenuity and practical ability to cope with the diversity of reality as a baby are thrown out with the bath water.
Bibliography


Appendix 1: topic guide

1. INTRODUCTION OF MYSELF
   - Personal background
   - Education
   - Explanation of the study

2. PERSONAL AND PROFESSIONAL CONTEXT OF RESPONDENT
   - Name, age, job, education
   - For how long have you been working for the Antwerp Port Authority?
   - Do you like your job?

3. EXPLANATION OF WORK ACTIVITIES
   - What are your main work activities?
   - Are there other (exceptional) work activities?
   - Can you give a description of an average working day?
   - In what setting do you work?
   - Which materials do you use?
   - How do you interact with colleagues?
   - What is the interaction about?

4. SAFETY - PRACTICE/BOTTOM-UP
   - What does safety involve according to you?
   - Who is responsible for safety?
   - How would you describe workplace safety nowadays in comparison with earlier times?
   - To what extent do you consider your work safe?
   - What practices do need extra attention concerning safety?
   - Do you have bad or significant experiences with unsafe situations at work? Can you give an example?
   - What was the cause for the unsafe situation/accident?
   - Which measures could have prevented it?

5. SAFETY - THEORY/TOP-DOWN
   - Can you describe some safety measures/protocols/rules at your work place?
   - Which are relevant to your job in particular? Why?
• How would you describe workplace safety measures/protocols/rules in comparison with earlier times?
• What do you think of the efforts of IDPB to keep track of and improve workplace safety?

6. ORGANISATIONAL CHANGE
• What do you think of the recent organizational changes/reorganizations?
• What is the reason for these organizational changes?
• What is changing for you in particular?
• How would you describe the atmosphere at work?

7. COMMUNICATION & COLLABORATION
• How would you describe communication and collaboration with colleagues now/after the organizational changes?
• How would you describe communication and collaboration with supervisors now/after the organizational changes?
• How is knowledge transferred to new employees?

8. SUGGESTIONS & CLOSING PART
• Which measures can be taken to improve communication and collaboration?
• Which measures can be taken to improve workplace safety?
• How do you see the future of the APA?

9. CLOSING PART
• Thank the respondent
• ‘Small talk’
### Appendix 2: overview interviews

<table>
<thead>
<tr>
<th>Interview number</th>
<th>Name</th>
<th>M/F</th>
<th>Job</th>
<th>Department</th>
<th>Duration</th>
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<td>Engineer</td>
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<td>F</td>
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<td>M</td>
<td>Captain</td>
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<td>5</td>
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<td>Captain</td>
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<td>7</td>
<td>Bjorn</td>
<td>M</td>
<td>Captain</td>
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<td>M</td>
<td>Personnel officer</td>
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<td>9</td>
<td>Dirk</td>
<td>M</td>
<td>Flex sailor</td>
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<td>Xander</td>
<td>M</td>
<td>Planner</td>
<td>Dredging</td>
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<td>11</td>
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<td>Manager</td>
<td>IDPB</td>
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<td>12</td>
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