Maritime safety has been an area with an increased focus over the last 50 years. Initially, there was a technical emphasis on equipment on board and on the construction of vessels, followed by training and certification of crews. Nowadays, there is an increased focus on the human element both on board vessels and within shore-based organizations affecting maritime safety. The emphasis on inspection of vessels has over the years increased via its port state control function. The port states have both an opportunity and an obligation to inspect visiting foreign vessels in order to verify the compliance of international standards and agreements.

This study examines the Swedish Port state control inspectors’ perceptions of their role in working for increased maritime safety. Do they feel free to use their experience and professional knowledge in order to interpret regulations and specific solutions on board a vessel? Or, do they feel constrained by organizational demands and the vast number of points in a checklist?

This thesis aims to increase the knowledge of the work situation for inspectors conducting Port state control. It also aims to pinpoint some important aspects of central issues that affect maritime safety in Sweden.

Kalmar, October 2015
Fredrik Hjorth

Lnu.se
ISBN: 978-91-87925-81-8
Complexity and Ambivalence in Ship Safety Inspection

– The view of Swedish Port state control officers
COMPLEXITY AND AMBIVALENCE IN SHIP SAFETY INSPECTION
– The view of Swedish Port state control officers

FREDRIK HJORTH

LINNAEUS UNIVERSITY PRESS
Complexity and Ambivalence in Ship Safety Inspection

– The view of Swedish Port state control officers
Facing it – always facing it – that’s the way to get through.
(Conrad, 1903)
A creative scientist must learn to wander aimlessly, browsing at random and search for material in unexpected places, [...] serendipity it is called. (Ehn & Lövgren, 2007, p. 229)
Acknowledgment

This thesis marks the end of a long journey. A journey that started in the autumn of 2006 with a short research report and continued with a postgraduate education in my lecture position through a cooperation between the University of Kalmar and Växjö University. To try and maintain some kind of continuity in a research project that one year proceeded at half speed and the next year at zero speed is almost impossible. Maybe, that’s also why time has flown away and reached nine years up until now.

In one notion, to conduct a research project, in an industry that forms a large part of my own identity, is rather interesting. It both points fingers on my own prejudice as well as act as an eye opener to understand it better and changing one’s own perception of it. Seen in that contrast, nine years is not a long period, rather a short one. To understand those complicated layers governing the maritime industry, both the public as the underlying ones, takes time, needs a long time of research, interpretation and analysis.

Many persons have been involved to render assistance to this work, from respondents participating in the research, supervisors, research colleagues, via colleagues at Kalmar Maritime Academy, to family and friends. To try and mention everyone involved in some way during these nine years would be a rather long list. Nevertheless, I am grateful to you all.

But then again, I will try to mention some that, especially has helped me. Firstly of course, the one making it possible, thanks to financial support, the Swedish Mercantile Marine Foundation, its board of directors and their administrative manager Christer Nordling. It must have been frustrating and maybe, you did lose faith as the years passed by? But, here I am, I did it!

During the years I have used up four supervisors. I must be terrible to supervise, or I just wore them out by taking too long time? In chronological order I have meet Göran Jense, Mirka Kans, Carl Hult and Ulf Druge as supervisors. When looking back in retrospective sense they have all in their special ways contributed in a large part to this final product, I, me, myself, and my thesis. Göran for showing an uncomplicated way of collecting data, to meet people at the right way, to be unbiased and to look at everything with open eyes. I think he also laid the basis for my understanding of safety culture and a perspective of system thinking that formed my knowledge of how to look at
shipping in a special way. Mirka got the ungrateful assignment to try to salvage my licentiate thesis. And did so with a very energetic way of pushing me forward, making me work on my texts. Carl and Ulf did last all the way to finished product. Carl via an indefatigably way of reading, discussing and commenting on everything I have wrote so far. And Ulf, analytical looking at my texts, pinching questions, even if you once asked me if I was kidding after you had read a text. Well I did not, but I guess it is my way of working, it is like the child’s play, musical chair. When the music stops, the meeting with supervisors take place, something, a text, do not have a chair or a place and falls to the floor, the oblivion.

To be the first, is special, in both positive and negative ways. A lot of pressure and trust is placed on your shoulders. I do not know how many times I have heard the question, When will you be finished? Well I guess, I do have an answer, NOW!! Nevertheless, I must say that my colleagues at Kalmar Maritime Academy have had a good way of supporting me. Even if what I have done might not have been quite obvious to all. And, finally, I’m not alone as I was in the beginning at the research department. The research colleagues at Kalmar Maritime Academy, Mats, Fredrik, Carl, Kjell, John, Magnus, Pär and Cecilia are much appreciated in all ways, both to talk to in general but especially their comments on my texts.

And most important of all, my family. I guess, when living in a bubble that you tend to do when working in a research study or participating in postgraduate education you do need those moments. Those times when you have to, are forced to slide out of that bubble and just participate in normal, everyday life. It is fun, redemptive, lets steam out, make ones think about other stuff, invites to laughter, well, all those things you normally do not think about as fun, feels rewarding and a way of changing perspectives. Annsofie, Samuel, Elisa and Hampus, we do have a lot of fun together, or at least, I think so!

Nevertheless, as stated in the beginning, nine years is a long period in a life, children grow up, go from needing care to become more and more independent. The life changes, both ones priorities as well as interest, in nine years’ time, I have had the time to bicycle around lake Vättern three times, do Vasaloppet on bicycle two times, break a shoulder ones in three different places, replace sleepers on the house, and hundreds of other things not worth mentioning. But, even all those things, I do sincerely hope this do continue. Or as Sir Winston Churchill did say:

Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning (Churchill, 1942).

Växjö, October 2015
Fredrik Hjorth
Abstract

Despite an extensive system of Port state controls (PSC) on ships, inspection loopholes in European control functions have been reported. Furthermore, risk factors associated with fatigue, stress and a poorly developed safety culture on board ships have been identified in earlier research. These combined risk factors may pose a serious threat to maritime safety.

With this as a point of departure, this thesis aims to investigate the perceived work situation for Swedish inspectors from an inspector’s point of view concerning professional challenges, status and identity for inspectors and the perceived quality of Paris MoU inspection system and the Swedish inspection organization.

In this study, the activities of Swedish PSC inspectors are viewed as a profession and the inspectors are viewed as bureaucrats. One of the principals for bureaucracy is that its servants should exercise their authority according to the common good, be autonomous, rational, reliable and responsible. The results indicate that organizational and management reforms have put the PSC bureaucrat under pressure to become more market oriented. Due to the responsibilities inherent in the profession of inspector within the complex structure of shipping, these organizational and management reforms conflict with the PSC inspector’s autonomy and professional role.

Inspectors perceive that their expertise and integrity are vital for the success of their work. They also consider the high degree of control that the Swedish inspection organization exercises on the inspectors’ work as limiting to their autonomy and ability to make professional decisions. Some level of control may fulfil a need of support from the Swedish inspection organization, but too much control hampers the professional self-sufficiency and freedom of action. The inspectors in this study reveal considerable ambivalence towards the quality and complexity of ship safety inspections carried out in Sweden and within the Paris MoU system.

**Keywords:** Inspection, Port state control, Detention, Deprofessionalization, Compliance, Maritime safety, Profession, Bureaucracy.
Table of content

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>11</td>
</tr>
<tr>
<td>Research aim</td>
<td>13</td>
</tr>
<tr>
<td>From safety culture to the control function of safety and security</td>
<td>14</td>
</tr>
<tr>
<td>Disposition</td>
<td>18</td>
</tr>
<tr>
<td>Method</td>
<td>19</td>
</tr>
<tr>
<td>The researcher’s pre-understanding</td>
<td>21</td>
</tr>
<tr>
<td>Design of the study</td>
<td>22</td>
</tr>
<tr>
<td>Data collection</td>
<td>23</td>
</tr>
<tr>
<td>Analysis of data</td>
<td>27</td>
</tr>
<tr>
<td>Saturation</td>
<td>29</td>
</tr>
<tr>
<td>Validity, reliability or just trustworthiness</td>
<td>30</td>
</tr>
<tr>
<td>Research ethical considerations</td>
<td>33</td>
</tr>
<tr>
<td>Shipping and Port state control</td>
<td>35</td>
</tr>
<tr>
<td>The legal frame</td>
<td>37</td>
</tr>
<tr>
<td>The regime in Paris MoU</td>
<td>38</td>
</tr>
<tr>
<td>The inspection regime in Sweden</td>
<td>44</td>
</tr>
<tr>
<td>Port state control – a professional bureaucracy</td>
<td>45</td>
</tr>
<tr>
<td>Safety and control in the shipping industry</td>
<td>45</td>
</tr>
<tr>
<td>Deprofessionalization</td>
<td>48</td>
</tr>
<tr>
<td>The Swedish inspectors’ work and views</td>
<td>57</td>
</tr>
<tr>
<td>The contexts</td>
<td>58</td>
</tr>
<tr>
<td>The professional role</td>
<td>73</td>
</tr>
<tr>
<td>Concluding discussion</td>
<td>87</td>
</tr>
<tr>
<td>Qualified professionals or routinized bureaucrats?</td>
<td>88</td>
</tr>
<tr>
<td>A route towards deprofessionalization?</td>
<td>89</td>
</tr>
<tr>
<td>Conclusions</td>
<td>94</td>
</tr>
<tr>
<td>Recommendations</td>
<td>95</td>
</tr>
<tr>
<td>Future research</td>
<td>96</td>
</tr>
<tr>
<td>Literature</td>
<td>97</td>
</tr>
<tr>
<td>Appendix 1: Interview guide</td>
<td>105</td>
</tr>
<tr>
<td>Appendix 2: Validating interview guide</td>
<td>109</td>
</tr>
<tr>
<td>Appendix 3: Summary of licentiate thesis</td>
<td>111</td>
</tr>
</tbody>
</table>
Introduction

It was a Monday morning in late November. The sky was clear and the temperature was around 10°C with a slight breeze. The Port state control inspectors were about to visit the Freyfaxi, a small, old general cargo vessel of Panamanian flag, for a detailed inspection. They went through a large part of the vessel in their inspection, covering different areas such as the galley, accommodation, engine room and Navigation Bridge. The inspection lasted for a couple of hours. No deficiencies were detected and the vessel was cleared for departure. After a short journey, six days later, the vessel ran aground in a narrow sound. A renewed, more detailed inspection was carried out by an inspector from another country. He found a total of 21 deficiencies, of which three were severe enough to result in detention: the ISM\(^1\) was not as required, scuttles were severely corroded and embarkation arrangements for survival craft were inoperative. Later the vessel was towed for scrapping. (Paris MoU\(^2\), 2014; Smålandsnytt, 2011)

There are several stories from all over the European continent similar to the one quoted above (Bloor, Datta, Gilinskiy & Horlick-Jones, 2006; Hjorth, 2012). Vessels cleared after inspection at one port had deficiencies or obvious irregularities found on inspection at another port just shortly thereafter. Of course, some discrepancies between inspections can be expected, since an inspection lasting for the usual one or two hours on board a vessel is not enough to cover all aspects. Other factors that may affect the outcome of an inspection are the experience and training of the inspector, the commitment from the crew and their treatment of the inspector as well as the temporary condition of the inspector, who may be influenced by fatigue or stress. It is, however, clear that the quote above tells us a story that goes far beyond the possible outcomes of such variations.

\(^1\) The International Safety Management Code (ISM) is a safety management system for shipping. The purpose of the ISM code is to provide an international standard for the safe management and operation of ships and for pollution prevention.

\(^2\) Paris Memorandum of Understanding (MoU) is a harmonized system of Port state control with the aim to eliminate sub-standard vessels from operating within the area covered by the Memorandum.
What the quote may reveal is that shipping – despite all efforts over the years – can still be an extremely risky business. To this picture of an occasionally inadequate control function, we should add the risk associated with fatigue, stress and a poorly developed onboard safety culture, which often derives from tight schedules and reduction of crew (Hjorth, 2012, Jense, 2009). Thus, the combined risk of occasionally poor Port state controls and the too often occurring poor safety culture on ships may pose a serious threat to life, cargo and the environment, both on board ships and along the coastlines.

This risk should be seen in the light of the increasing magnitude of shipping in the global economy of today. Shipping is the hub of transportation in the world, with over 90 per cent of all cross-border freights transported by sea. The international merchant fleet consists of more than 50 000 vessels and is manned by 1.3 million seafarers (Baltic and International Maritime Council (BIMCO)/International Shipping Federation (ISF), 2010, EQUASIS, 2014, Organisation for Economic Co-operation and Development (OECD)/International Transport Workers’ Federation (ITF), 2015). To illustrate the growth with figures, there was a total of 2.6 billion tons of cargo shipped by the world’s merchant fleet in 1970. By 1990, this had increased to 4.0 billion tons, and by 2013 to 9.5 billion tons (United Nations Conference on Trade and Development (UNCTAD), 2014). This development is predicted to continue with an estimated growth factor of 4 over the next three decades (OECD/ITF, 2015).

Given questionable safety routines on board ships, occasionally poor safety controls and the increasing number of vessels along our coast lines, how worried should we be? Well, maritime accidents may be seen as uncommon if we only look at the large-scale accidents or catastrophes. In European waters, the capsizing and sinking of the Costa Concordia in 2012 was the first major accident involving a large passenger vessel since the Estonia in 1994. Since the Prestige sank in 2002 there has not been any major oil spill. However, accidents do happen regularly. The latest serious accident in European waters to date was the fire on the Norman Atlantic in December 2014 with 500 persons on board. 28 persons died in the fire and two in the subsequent rescue operation. We know that in 2010 there were 644 vessels involved in accidents in European waters, 61 seafarers lost their lives due to accidents on board and accidents resulted in a total of 8 000 tons of oil spill (European Maritime Safety Agency (EMSA), 2011). For seafarers the research also reveals high levels of occupational accidents and amongst the highest occupational mortality and morbidity for all occupations (Hansen, Tüchsen & Hannerz, 2005, International Labour Office, Seafarers International Research Centre, 2004, p. 131, Roberts & Marlow, 2005).

---

3 Relates to SOLAS vessels, cargo vessels over 300 GT and passenger vessels in international trade.
This accident statistics in combination with the prospect of continuously increasing maritime transports indeed highlight the need to prevent substandard ships from operating along European coast lines. This is also the sole objective of Port state control: enforcing compliance with international regulation. The inspectors have a wide range of actions at their disposal: they can mark a vessel with a deficiency that either needs to be corrected immediately or in a certain time, they might detain a ship, i.e. hinder it from leaving port, or, as a last resort, a ship can be banned from entering a European port. This entire palette of possibilities together with the economic stakes put a lot of strain on the inspections – they need to be legally secure, equivalent, fair and correct all over the continent. Because of this complexity and since the quality of Port state control is essential for the safety of seafarers and sea transportations, it is important to pay attention to the Port state control officers’ own views concerning inspections and their work situation. This is also the attempt of this thesis, with focus on the Swedish case.

The case of Sweden is interesting and important for three main reasons, all three putting pressure on inspections and inspectors. First, an extensive drainage of vessels registered in Sweden during 2002–2012 has led to a near halving of the Swedish merchant fleet (Trafikanalys, 2014). This has in turn shifted the inspectors’ focus from flag state inspections to Port state controls. Second, an investigation initiated by the Swedish government towards the Transport agency has streamlined their regulatory activities in order to lower the cost of inspections of Swedish-flagged vessels (Transportstyrelsen, 2010). Third, there is an increased demand from ship owners to lower inspection costs by delegating them to recognized organizations of inspection activities conducted by flag state inspectors. These three factors might put strain on the inspection profession.

**Research aim**

The aim of this study is to investigate the perceived work situation for the Swedish inspectors from an inspector’s point of view. This incorporates the inspector’s perception of the professional challenges, status and perceived identity of the profession. It also includes the inspector’s perception of the quality of the Paris MoU inspection system and the quality of the Swedish inspection organization.

---

4 Relates to SOLAS vessels, cargo vessels over 300 GT and passenger vessels in international trade.
5 Paris MoU is a memorandum of understanding governing the Port state control function in Europe and Canada, see further pp. 38.
From safety culture to the control function of safety and security

This thesis is linked to my licentiate thesis, published in 2012, in that both focus on maritime safety. This thesis examines the PSC inspectors perceived work situation and the licentiate thesis examined the safety culture in shipping with a main focus on the vessel and the crew’s work in relation to safety culture but also on the segment as well as the whole maritime industry. The background to the study was the International Maritime Organization’s (IMO) increased focus on safety in shipping and the introduction of the International Safety Management Code (ISM). ISM points out the importance of a good safety culture, and establishes that it is through the effectiveness of the safety management system that such a culture should be measured (International Maritime Organization (IMO), 2010).

By using Reason’s (1997, pp. 195) definitions of different cultural approaches to handle safety issues in a specific organization – reporting culture, just culture, learning culture and flexible culture – merged with Westrum’s (1992) levels of safety culture – pathologic, reactive, bureaucratic, proactive and generative – an analytical framework with six factors emerged. These analytical factors included how information is shared, how feedback is handled, how responsibility is shared, how co-operation is handled, how follow-up is conducted and how development is handled.

The licentiate study incorporated 31 interviews and 11 vessels totally and the results showed that for the vessels participating in the study, as individual workplaces, they were estimated to be at the bureaucratic level. This was based on:

(i) the information provided was ignored,
(ii) feedback is tolerated but ignored,
(iii) accountability was personal,
(iv) co-operation only when required,
(v) mistakes were punished and
(vi) new ideas were ignored.

In the study, questions related to PSC were also asked to crew members since previous studies, such as Bloor (2003), pointed towards several factors affecting the conduct of PSC, factors like inadequate resources, biased focus and inconsistencies in inspection practice.

---

6 A more detailed summary of the licentiate thesis can be found in Appendix 3. The whole licentiate thesis is only available in Swedish.
7 IMO – International Maritime Organization, a UN agency for the global setting of standards for the safety, security and environmental performance of international shipping.
8 PSC – Port state control – a harmonized control function aiming to stop sub-standard vessels from operating within its area, in Europe managed by Paris MoU.
Findings relevant for PSC in the licentiate thesis were such as; inspections rarely reached out to all vessels depending on ports visited; vessels visiting minor ports in the outskirts were more seldom visited by inspectors; inspections were more focused on technical aspects; there was a discrepancy depending on who carried out the inspection and where it was carried out. Results also showed a usage of inspector’s results during inspections towards the crews’ own management company and inspections with a negative impact on an already strained work situation on board.

The ISM stresses the importance of professionalism among seafarers, and that it is in professionalism that the safety culture must have its roots (IMO, 2015). Further, an IMO expert group concluded in an evaluation of ISM that the impact of PSC on safety had not been fully explored, but certainly appeared to need further studies (IMO, 2005). Even though the primary responsibility for ships’ standards rests with the shipping company and the flag state—the Port state control provides a safety net to catch substandard ships and therefore has a substantial role to play in the pursuit of maritime safety.

Co-operation is a vital parameter for safety, and PSC inspectors should be seen as an important group for the crews to co-operate with. The principals of PSC as a way of endorsing maritime safety should also—in a perfect world—promote a better safety culture on board ships. However, results from other studies, such as Knapp (2004) shows that PSC is more seen as a parallel to policing at sea. While Knapp and Franses (2007) and Knapp and van de Velden (2009) points out that outcomes of an inspection is dependent on inspectors differential interpretation and professional judgements on what is a deficiency and what warrants enough for a detention. These different outcomes shows an uncertainty on how PSC are conducted and to what extent PSC inspectors have the opportunity to conduct high quality inspections.

Research using in-depth interviews with Port state inspectors is scarce. Traditionally, research on Port state control has been carried out with statistics from MoU databases, for instance Bang, (2013); Cariou and Wolf, (2011); Cariou, Mejia, and Wolff (2008); Knapp and van de Velden (2009); Li and Zeng (2008). Port state control statistics has also been used to try to evaluate other safety related areas such as the ISM Code and also to analyse the quality of vessel operation as a governance problem (Anderson, 2005, pp. 53; Gritsenko & Vehkalahti, 2011; Mejia, 2005; Sagen, 1999, p. 106–110).

Also, Port state control statistics have been used to measure effects of implementation of major international conventions where it painted a rather mixed picture (Knapp & Franses, 2009). While Knapp, Bijwaard and Heij (2011) shows a monetary quantification of the cost saving that can be attributed to Port state control inspections and industry vetting inspections. Otherwise, there are some important contributions with focus on health and safety on board vessels conducted in ports of India, Russia and the UK and also contributions relating to problems of regulating a global industry (Bloor et al., 2006; Sampson & Bloor, 2007).
In the Swedish case, Port state inspections have only been touched on in on board observations of safety culture (Hjorth, 2008, 2012; Jense, 2007, 2009; Jense, Eldh & Wengelin, 2008). There are, however, some conclusive observations concerning the efficiency of Port state inspections pointing at cross-national inconsistencies in practice, i.e. standards differing with Port state regime (Bloor et al., 2006; Sampson & Bloor, 2007; Mitroussi, 2004).

It has been argued that the cross-national inconsistency has a negative effect on the trust profile and that experts make hidden value judgements during Port state control inspections, with the consequence that the inspections are not regarded as an effective means to enhance the quality of shipping (Beck, 1992, p. 29; Sampson & Bloor, 2007; Walls, Pidgeon, Weyman & Horlick-Jones, 2004). There is also a risk of shipping companies adopting a creative compliance with regulations (Baldwin, Cave & Lodge, 2011, p. 232). Port state control has been practiced for over 30 years, and even though vessels trading along European waters probably are better now than before, accident rates do not decrease over time (EMSA, 2011). It signals that although Port state control is seen an effective way to counteract sub-standard vessels, there is more to maritime safety than what might be possible to inspect and control.

However, a few studies have argued that Port state controls have been effective in improving the safety level in shipping over time based on statistics from 1996–2001 and 1994–2005 respectively (Cariou, Mejia, & Wolff, 2008; Li & Zheng, 2008). Yet another study using data from 1980–2009, fails to find any established trends of improvement (Bang, 2013). Soma (2004) shows examples of correlation between large number of Port state detentions, structural failures and substance abuse problems within a shipping company and an operational failure. A few studies have studied risk profiling, how vessels are prioritized\(^9\) for Port state controls, such as Heij and Knapp, (2012), Heij, Bijwaard and Knapp (2011) and Knapp and van de Velde (2011), all shows that there are potential safety gains in improving how vessels are prioritized. A study on safety culture and safety climate in a Norwegian shipping company, used in one test a Port state control ratio\(^10\) to try to indicate a relationship between level of safety and several other factors. And it showed that the most important factor in explaining variation in Port state control ratio was employee and management’s attitude to safety and quality Håvold (2005).

This puts a focus on the human element in shipping, as a safety culture aspect, for safety in the whole organization and for the individual seafarer (Ek, Runefors & Borell, 2014, Hjorth 2012, Jense 2009). The human element is hard to manage and verify through inspections. At the same time, it points towards the case of lessons not learned despite the fact that human elements and safety culture are supposed to be integral parts in IMO Human Element policy (Schröder-Hinrichs, Hollnagel & Baldauf, Hofmann, 2012; Schröder-Hinrichs,

---

\(^9\) A more thorough description of the prioritizing system can be found on p. 41.

\(^10\) A Port state control ratio is a number of non-conformities in % of number of Port state controls.
Hollnagel, Baldauf, Hofmann & Kataria, 2013). Without the right approach to understand safety and safety culture, valuable opportunities for safety improvements might go unnoticed, losing the deeper understanding of safety culture and safety promotion (Ek et al., 2014; Schröder-Hinrichs et al., 2012).

Despite good intentions from regulators and policymakers, their effort has not passed without criticism (Bloor et al., 2006; 2013; Hjorth, 2012; 2008; Knudsen & Hassler, 2011; Mitroussi, 2004; Psaraftis, 2009). It has been pointed out that the penalties for being caught with a sub-standard ship are insufficient, and that stakeholders tend to calculate this cost against the cost of keeping up with international standards (Bloor et al., 2006; Mitroussi, 2004; OECD, 1996). The system of Port state control, where foreign ships can be subject for Port state inspection, is a way to compensate for these differences in work quality of flag states (Mitroussi, 2004). And, DeSombre (2008) argues that Port state control has created an incentive for increased standards in the maritime industry.

In an organization there is need and demand – a need to maintain a work process, quality and equivalence and demands from managers and the organization on efficiency and work process. There are different ways of controlling work and to meeting the demands from the organization and at the same time maintaining a professional autonomous profession. This dual problem has been studied with both a focus on direct problems related to the inspected part and with the organizational demands (Johansson, 2006, pp. 75; Lindblom et al., 2003; Lindblom & Hansson, 2003; Lipsky, 1980). Finally, it has been argued that research on governance and compliance in the shipping industry is not of value for the shipping industry alone:

The shipping industry is a valuable natural laboratory for the study of patterns of compliance and governance in late modernity because it is characterised both by highly developed polycentric governance structures and by globalizing economic processes including vertically disaggregated global value chains, outsourcing and offshoring (Bloor, et al., 2013).

Therefore, to understand the PSC impact on safety and safety culture, we must understand the way PSC function and how the inspectors’ themselves perceives their work situation and their opportunity to conduct a sound and relevant inspection.
Disposition

The next chapter, Method, describes how the study was conducted, how the data collection was arranged and how the material collected throughout the data collection process was analysed. Incorporated in this chapter there is a discussion on the author’s pre-understanding and how this might have affected the study and what actions were taken to counteract this effect. Further discussed is the trustworthiness of the study and additionally, a consideration on research ethics are found in this chapter.

In the following chapter, Shipping and Port state control, the reader finds a description of the Port state control system, from the legal frame to the specific situation in Sweden. This chapter also incorporates a brief look at specific functions of the Port state control system and it describes the complicated structure of inspections in the maritime industry. If the reader is fluent in the structure of PSC and Paris MoU as well as inspections in the maritime industry, this chapter can easily be skipped and proceed directly to the next chapter.

Port state control - a professional bureaucracy, is the chapter were the reader finds a theoretical discussion on areas of interest for the study. This incorporates areas of bureaucracy, de-professionalization, alienation, and the challenges a profession of PSC inspectors might encounter.

The results from the interviews and observations are presented in the chapter The Swedish inspector’s work and views. This chapter is split into three main sections; technical context, social context, and the professional role. Three vital parts in the perceptions of the inspection activities.

In the Concluding discussion, the results of the study are discussed. This discussion focuses on the implications of how the inspectors perceive and experience their work situation, possible consequences and what might counteract them. Here is also a discussion on recommendations for the maritime industry on how to use the results for a further development of the inspection system and a thought of future, possible research areas.

In appendix 1 and 2 the reader finds the interview guides used in the interviews. The guides is not complete finished interview guides strict to follow, they should more be seen as checklists used to conclude that all relevant themes was covered during interviews.

Appendix 3 contains a summary if my licentiate thesis published in 2012. Unfortunately the complete thesis is only available in Swedish.
Method

Conducting a study into the maritime industry with a focus on Port state control means that we are dealing with a subsystem of the whole maritime system. A study of this requires a broad approach but also a deeper look into the parts of the subsystem, i.e. the actual inspections, the social interactions and the inspectors’ perceptions and views. We must be able to interpret and analyse human actions and strategies as well as the contexts where actions are taken and strategies are made, such as the physical and social place of inspections and the organization in which the inspectors are working.

Methodologically, we have to adapt our methods based on where in the system and subsystems we are in our study. To understand the human behaviour, we need to adopt an interpretive approach. This interpretive approach means that we are interested in how people understand, interpret and negotiate their own social situation, how they make sense of their world, in this case in their work as PSC inspectors. Another way of expressing this would be to say that we are more interested in understanding (from the inside) than in explaining (from the outside) (Mead, 1972).\(^\text{11}\)

This notion on understanding, goes hand in hand with Gadamer’s (2013, p. 443)\(^\text{12}\) concept of understanding through dialogue that is central in hermeneutics. Understanding then becomes a mean to melt together my horizon of understanding and meaning, with the respondents. Gadamer (2013, p. 508) argues, that all researchers bring a history to the research environment, and that these values make research meaningful to its readers. In a thesis focused on perceptions there is not only the perceived experience that interest me. Also the actions that rests on the perceived experience is of interest.

\(^{\text{11}}\) More about Mead’s interpretive strategy can be found in “Mind, Self, & Society”, where Mead presented the social self, how people develop systems in interaction, through communication and symbols and how people adapt and focus on a systemic context.

\(^{\text{12}}\) A further elaboration on Gadamer is found in his book Truth and method, where he elaborates on his perspective on hermeneutics, interpretation and understanding.
To interpreter and understand actions in this sense is the same as Dilthey and Jamesson, (1972) means when discussing understanding actions through understanding other people. Even such an action as to, for instance interpreter a regulation and use the regulation is an important aspect when understanding is the essence. For example to interpreter how and when application of rules of thumb in a given specific situation is valued by the respondents requires a deeper set of understanding (Scott, 1989, p. 316). Or how to interpret and understand how tacit knowledge and practical intellect can be used to evaluate risk and how interpretation of complicated technical regulation are conducted (Göranzon, 2007, pp. 59, 99; 1996). Even understand have various degrees dependent of the interest of the person trying to understand (Ricoeur, 1975). This interest can be, in one sense, valued by the deepness of the interviews, the notion of the supplementary questions, the interest shown during interviews to dig deeper, to understand (Ricoeur, 1975).

My intention with this short paragraph is to illustrate my scientific approach or standpoint. I do believe that this distance myself from a positivistic approach since interpretation and understanding of human action is a process not able to be reduced to a work based on statistics and causal laws (Asplund, 1970, p. 89)

According to Abbott (2004, p. 13) the method is the technology or procedures applied by the researcher to collect and analyse data. In studies of people at work, a variety of methods and strategies can be applied: experimental studies, surveys, ethnography, grounded theory and action research for instance. Common to all the different strategies is that they incorporate different advantages and disadvantages, making them more or less useful for a particular type of study. What is crucial for the choice of method is the study’s purpose, its research questions, the researcher’s control over what is studied, the context of the study, and the time frame of the study (Abbott, 2004, p. 53).

Since this thesis aims to capture an image of a perceived work situation and the methods used by the inspectors and simultaneously introduce the complex system where this culture and these methods exist, a combination of interviews and observations has been used

---

13 For a deeper understanding and knowledge of Asplund’s work can be found in Om undran inför samhället, where he elaborates on aspect of vision and reference as phenomena in social settings.
The researcher’s pre-understanding

My own experience of Port state control and all other inspections is limited to be on the inspected side, i.e. to work on vessels being inspected by inspectors, either in flag state and Port state inspections or via inspections by classification societies. Because of this, that I as researcher in this study examines activities of which I has taken a great part in my previous working life, there are two questions that need to be answered.

The first question is to what extent this socialisation into the shipping industry has had an impact on the ability to observe and analyse data? The second question is how the possible impact has been taken into account during the study? The answer to the first question is that the impact of previous experience in the system studied may be seen as both positive and negative when it comes to observing and analysing data. The positive is that the researcher and the interviewed person share a common language. The negative is that a higher degree of preparation and clarifying questions are needed in order to avoid preconceptions. Given the respondent’s knowledge of the researcher’s background this may lead to some follow-up questions being seen as strangely simple and not logically connected to the prior knowledge of the researcher. The answer to the second question is that the possible negative impact has been dealt with through an extra preparedness on wordings and follow-up questions to the interview template.

When it comes to the observations, there is more to be said in favour of the observers’ pre-understanding. According to the hermeneutics no interpretation process starts completely unbiased. Instead the researcher collects and processes the data with a variety of thoughts and ideas about its contents and interpretations, which altogether can be called the horizon of pre-understanding (Johansson, 2003, p. 96). In a study that sets out to understand, there is a need not only to describe what happens but also to understand the underlying layers of meaning of what happens. Here it is important to make a distinction between an act and an action. The act refers to a behaviour observed by an outsider whereas an action refers to the layers of meaning surrounding the event from a participant’s point of view (Hewstone & Manstead, 1999, p. 4, 217; Mead, 1972, p. 6). Unless the observer is fully aware of the studied group’s history, goals, beliefs and values acts are only available to observe. The ability to interpret a particular sequence of events or meaningful contents of an event is thus based on the premise of understanding. Thus, this study has been carried out balancing the benefit of pre-understanding with precautions taken not to fall into harmful preconceptions.
Design of the study

On the whole, this study has followed the seven stages presented by Kvale (1996):

(i) thematization,
(ii) design,
(iii) data collection,
(iv) transcription,
(v) processing and analysis,
(vi) results and,
(vii) reporting.

The stages can be seen as a roughly linear process, although, in practice they tend to overlap and merge into each other over the process. In this study, especially data collection, transcription, processing and analysing has been conducted rather simultaneously, moving back and forth between these four stages depending on the action needed.

Going back to the licentiate thesis it was centred on an exploratory research design and it was based on a loosely worded and comprehensive question of what determines safety at sea. With this as a background, the focus became safety culture with onboard observations and interviews. Gradually, with a deeper knowledge on the theme, the study transformed into having a more descriptive design concerning safety culture on board. During this phase it became more and more evident how the control function, such as PSC, has a significant role in creating a safety culture in the maritime industry on the whole.

With the licentiate thesis finished, the design reverted back to being more exploratory. This exploratory attempt focused on the perceived conditions for the PSC inspector to do a good job maintaining a sufficient safety standard on ships in the Paris MoU territory. Interviews and observations early in the study were exploratory but further on as knowledge increased, interviews became more structured, a more precise aim emerged and the design took a more descriptive form. The final interviews became controlling, validating and descriptive in total.

With the background presented in the introduction and the results from the licentiate thesis in mind, an embryo to the research aim presented on page 13 slowly emerged during the start of this project. Even though the first drafts of the research aim were not exactly like the final one, the prevailing focus was the perceived work situation for the Swedish inspectors, seen, as near as possible, through the lenses of the inspectors themselves. With a review over literature on PSC, profession, deprofessionalization and organized bureaucracy as a base, the thematization was carried out. During the thematization process relevant themes were singled out, such as preparation prior to a PSC, usage of
relevant regulation incorporating interpretation, practice during inspections (social and technical) and authority and power in the office as inspector.

The design of the study does take a lot of parameters into consideration such as; time frame available for the study, availability and access to the research field, type of material to be collected, how to answer questions from the thematization, number of available respondents, my own familiarity and knowledge of different methods and especially economic constraints (Bryman, 2012, pp. 45). Moreover, already at the design phase there was a need to take into account the criteria for evaluation of the reliability, replication and validity of the research results, or as Bryman (2012, p. 49) puts forward, the trustworthiness of the study.\footnote{The trustworthiness is discussed in a later part of the methods chapter, p. 30.}

On the whole, since the unit to analyse is the Swedish inspectors and not the entire Swedish inspection organization or the Paris MoU organization the design phase became somewhat twofold. The study can be seen as a case study with both an exploratory and descriptive design.\footnote{According to Bryman (2012) it is not always a clear-cut distinction between different designs.} It is a case study since it is one single organization and a single event that is studied. At the same time the unit to analyse is the inspector’s views on the organization and the inspection events.

## Data collection

The access to the site is of central importance for the success of data collection in this study, access not only in the physical sense, but also access to the sets of norms and values among the participants on the site. Hammersley and Atkinson, (2007, p. 41pp) refer to norms and values as parts of the social circle the individuals in a social group use, interconnecting the people in that specific group.

Interviews and observations have been used in an attempt to create a multidimensional image of the working context of the respondents, as well as the events they participate in. This multidimensional image consists of individuals’ experiences and opinions concerning their situation and how they perceive the work and their own organization. To achieve this, the data collection has had four stages: situations have been:

1. discussed in interviews,
2. observed,
3. experienced and
4. discussed to understand the dialogue the situation circulates around.
The intention with this method of data collection was to be able to view the same context and event in different ways, in order to gather strength and depth in the collected data.

An important aspect of this study has been the access to both vessels for observing inspections and access to people for interviews. To find respondents and observation situations, a valuable help has been the social network that I have gained partly through my own work experience but also through the research group at the university. In a way, the selection of people and places to observe can be described as snowball sampling. Of course, this sampling method includes a risk of getting stuck in a social network where all participating informants shared common contextual backgrounds as well as views.

Each inspector was contacted directly in order to get a personal contact, both to enhance the general willingness to participate but also to keep outsiders unknown to who would be interviewed. The field work took place on three different time frames, during spring 2013, 2014 and 2015. In the study, a total of 20 people were interviewed and three observations were conducted. At the start of the data collection 2013 there was about 45 active inspectors in Sweden. Over the years of data collection the number of inspectors has decreased, at the beginning of 2015 there were a total of 37 inspectors with delegation to make inspections in Sweden. Of these only 25 were authorized to conduct PSC and 26 were authorized in stand by duty for emergency inspection related to accidents (Transportstyrelsen, 2015).

Since the study’s main focus is on PSC, only inspectors with delegation to conduct PSC have been included in the sampling process. The aim of choosing respondents has been to reach inspectors in all three inspection areas in Sweden. 16 The low number of available respondents with adequate duties means that I am already in a group with similar contextual backgrounds. Therefore, the possible risk is somewhat limited or already there with the low number of possible respondents to start with.

In the end, this study has been close to embrace all inspectors with delegation to conduct a PSC in Sweden. However, some respondents declined participation or did never respond to my initial request. Moreover, the exact participation rate is difficult to estimate because the number of inspectors in Sweden with delegation to conduct PSC has varied during the timeframe for the study (2013-2015).

To interview

The interviews were carried out during three different timeframes: spring of 2013, 2014 and 2015. In 2013 and 2014 ten interviews were conducted and they

---

16 During the course of the study the three inspection areas changed, from at the start being Stockholm, Gothenburg and Malmö. Changing to Stockholm, Norrköping and Gothenburg/Malmö.
were consistently done in a uniform manner. They were thematic and semi-structured and in accordance with Trost’s (1997, p. 19) reasoning on a high degree of structuring and low degree of standardization; see Appendix 1 for interview guide. Structure should here be understood in terms of structure of each interview, i.e. it followed a path and did not switch back and forth between different areas (Trost, 1997, p. 21).

The interview guide was defined in advance, with a selection of questions in different templates. The guide should not be confused with a standardised template. Topics and issues to be covered were specified but not the sequence or the exact wording, which were decided during the interview situation depending on how the interview evolved. The overall aim was to strengthen the comprehensiveness of the data and make the data collection systematic. A weakness of this interview method was that each interview became its own, where the sequencing and wording of questions may have resulted in somewhat different responses from different perspectives, something that might have reduced the comparability of the responses (Patton, 1990, p. 288–289).

Interviews lasted approximately for 2 hours. The setting of the interviews varied between being conducted at the inspector’s office, at a restaurant, via phone or in a more separate setting at a neutral place. There is a risk that different settings might affect the collected data. However, the aim during the interview phase has been to let the respondents decide on the settings as far as practical, in order to make the respondents feel as relaxed and comfortable with the interview situation as possible.

Using telephone as a technique to interview might affect the collected data but it is not always the case (Bryman, 2012, p. 488). The big difference is the lack of eye-to-eye contact and possibility to read body language. There might also be a change in the way questions are asked over the phone, with questions running the risk of not being fully finished or grammatically correct in an eye-to-eye interview (Bryman, 2012, p. 488). Body language has not been considered at all in the analysis and the comparison between the respondents’ way of answering has not shown any significant difference depending on the interview situation. It is therefore estimated that whether the interviews were conducted via telephone or in different types of settings, had no or such a minor influence that it would not change the data collected or affect the trustworthiness of the study.

Each interview was recorded with a digital recorder and transcribed afterwards. The transcription did not incorporate tone of voice, body language or repeated use of filler words, but otherwise transcribed in full. Interviews were conducted in Swedish and transcribed in Swedish, only those parts needed as quotes in the thesis were translated to English. The translations have been carried out with the aim to make them both readable and understandable in English, but not to change the meaning and the general feeling from the interviews in the used quotes during the translation. In addition to interviews,
informal conversations occurred during the visits, both during observations of inspections on board as well as during visits at the inspectors’ offices.

The interviews during the third timeframe in spring 2015 were done to verify the results from the two previous timeframes. After the analysis of the two first interview rounds was completed, the most interesting results were extracted and a new interview guide was created on the basis of these results. It can be seen in appendix 2. This time, ten further interviews were done via telephone, taking approximately 30–35 minutes each.

To observe

In addition to the interviews with inspectors, observations were conducted during PSC. The observations present a complement to the interviews. They provided an opportunity to study behaviours and events in their natural context. The observations made were mostly of social interaction between inspectors and inspected, working methods and of the situations and conditions in which the work was carried out. The observations were not carried out as actual participant observation, i.e. there was no involvement in the specific inspection work. However, they have some elements of participant observation as they were conducted while shadowing the inspectors where their work was performed, whether on the bridge, forecastle, in the hold, the accommodation or in the engine room.

As a whole, the observations were conducted based on Fangen’s (2005, p. 29pp) discussion of participant observation. Observations should be prepared on the basis of what to observe, the situation in which they will be made, the time horizon for the observation and how the data shall be documented. Since it was not possible or desirable to steer the inspections, it followed that preparations could only be made based on what to observe, when to observe and what to document. The actual observation situations, however, were improvised since I followed a standard and routine PSC and the normal process of an inspection on board.

Throughout the observations notes were taken on what happened, who did what and when it happened. There was not sufficient time or space to completely document all details during the observation sessions. At the actual time of observation, short keywords were noted and after each inspection as soon as the opportunity arose, a more detailed account of the observations was written down. The ambition was to make the interviews before the observations, as the time available for the observation was not possible to control, but due to circumstances the interviews were done both before and after the observations.

Secondary data

Secondary data consists of official studies from the Swedish National Transport Agency, documents relating to PSC from Paris MoU, and inspection
statistics. Official reports have been used in order to develop my own knowledge of the studied activity but also to verify findings of the study. Verification provides both the possibility to confirm statements but also to find contradictions between official documents and practices described during the data collection.

All material collected in the study has been processed through a critical evaluation conducted in two stages: an outer and an inner evaluation. The outer evaluation aims at establishing the authenticity of the source. Inner evaluation aims at examining the statements and facts that the sources provide. The evaluation was done with four criteria:

(i) The contemporary criterion – is the data recorded when the events occur or long after?
(ii) The tendency criterion — is the source coloured or biased by the author’s values or the organization’s aim??
(iii) The depending criterion – is the source independent or dependent on other sources?
(iv) The contextual criterion – is data interpreted with respect to the context it was collected in? (Thurén, 2013)

One main problem in collecting secondary data was the confidentiality of documents at the European Union (EU) level. Documents concerning training of inspectors, inspection strategies, instructions for Paris MoU inspectors and a few others relating to EU and Paris MoU are classified and have therefore not been available to use in this study.

Analysis of data

Transcriptions of interviews, observation protocols and field notes were grouped for each visit. Each visit was then analysed individually as a whole. This was done in order to find relevant themes, patterns and categories and also to reduce data. There has been a constant interplay between data collection, data reduction, seeking patterns, critical review of the findings and forming dimensions that reflect the content of the material throughout the analysis. The analysis is based on Miles, Huberman and Saldaña’s (2014, pp. 340) discussion on qualitative analysis. After the first data reduction, the material was processed against relevant theories and previous research to find common links and to single out relevant themes by which to analyse the material.

Then followed a second reading to find common and/or incoherent patterns and categories based on the relevant themes found in the previous reading. After the first draft of both the results and the discussion chapter, a third reading was
done to try to find missing data. Linked to the missing data, new data both strengthening and weakening the data already used was also searched for. Differences and similarities in categories and patterns were noted to distinguish how coherent and/or incoherent they were. The analysis was carried out in accordance with the division Fangen (2005, p. 224) makes, where interpretation is divided into a first, second and third degree. These interpretations are equal to the hermeneutic spiral, where each reinterpretation twists the interpretation in an extra notion and further increases complexity of interpretation.

The first degree of interpretation incorporated what was seen and heard at the place and time of the collection of data, without using theories or underlying patterns. This can for instance be what was said, who said it and in what context it was said. The second degree of interpretation meant a switch between everyday and more foreign concepts. These foreign concepts consist of other scientific results and theories mixed in together with the collected data and what the respondents may have meant with it. This degree was needed to reach what Geertz (1977) called the thick description, which was needed to fully describe the studied situation. In the third degree of interpretation, the analysis aimed at reaching the underlying interests and motivations of the studied situation. This is a concept of critically relating to the interpretations of the interviews in order to interpret and understand the present situations in full (Fangen, 2005, p. 240). With this triple hermeneutic process to interpret, understand and communicate, the three degrees becomes a means of analysing the collected data to be able to create the thick description.

As already discussed, one significant analytical problem was my own pre-understanding of the subject. In order to interpret and analyse the data I needed to metaphorically step outside my own knowledge. The first degree of interpretation meant that I should see what I really had seen, read what I had read, and thus not make interpretations based on my own experience. This meant that the work in large had to be done in a way that went beyond and outside my own experience from the profession and what I conducted in the licentiate thesis. In a sense this was in line with how Asplund argues on problem solving:

[… we are polyphonic creatures, who can have a dialogue with ourselves (Asplund, 2002, p. 145).

This internal dialogue was needed to ensure that my pre-understandings did not disturb the collected material. It is a delicate balance to navigate through one’s own prejudice or pre-understanding, in one way using it but not letting it distort the collected data. Since problem solving can only happen in a dialogue and not in a monologue, the internal dialogue was also used for problem solving. This self-dialogue is according to Mead (1972) a reflexive process where the

---

17 See appendix 3 for a summary of the licentiate thesis.
material is being processed via series of actions, reading, taking notes, re-reading both interviews and notes, taking new notes, writing drafts, reading drafts, and continuing in a reflexive process trying to, as much as possible, eliminate misunderstandings and gain control of the narratives in the collected data (Gadamer, 2013). The whole process can in one notion be seen as aiming at producing a text, this text. The thing of the text, this text is that it only becomes my own if I disappropriate myself from myself, in order to let the thing of the text be (Ricoeur, 1975).

The process of analysis is not only dependent on own material. In order to analyse and understand a meaningful social behaviour, the researcher must have knowledge of the rules that govern the behaviour. Important rules for this study have been codes of conduct for inspectors, technical regulations, organizational regulations and hierarchical constraints and opportunities. It is important, as Asplund puts it:

[…] to have knowledge of the rules that the relevant actors consider themselves to follow (Asplund, 1970, p. 81).

This means that I in this study not only searched for knowledge of the official rules that guide and influence, but also for the internal rules affecting the conduct and behaviour. Understanding or that we get the point and meaning of what is said and done is something that is extremely distant from the statistics or the world of causal laws (Asplund, 1970, p. 89).

**Saturation**

Deciding when to finish the data collection phase is not a clear cut decision. To reach saturation which is the aim for the research, one has to have been able as far as possible to get a grip on all the different angles and approaches to a specific question or theme. There are many parameters to take into account, such as research aim, size of population, variation of themes, economic and time constraints and changes in the research area. Saturation as such is not when the researcher senses a déjà vu in the interviews (Bryman, 2012, pp. 421). Saturation is rather when no new data seems to emerge regarding a theme, when the theme is well developed in terms of dimensions and when relationships between themes are well established and validated (Bryman, 2012, p. 420).

If there is a strict division between data collection and data analysis, the point of saturation may be harder to assess. This is because the signs of saturation in such approaches tend to occur during analysis of the data rather than during interviews. In this study, collection and analysis have to some extent been conducted simultaneously. Saturation first occurred during data collection in
2014, in the combined data collection and analysis of interviews 6–10. It was not a case of getting exactly the same answers repeatedly or a feeling of déjà vu when interviewing, since some of the most interesting interviews were done in this period. It was more a sense that interview themes and data analysis melting together to form a clear picture.

Although saturation was reached during 2014, it was decided to further validate the findings. Some of the results were indeed controversial, such as the tendency of inspectors to use loopholes or creative tinkering. Moreover, some results might not be stable over time, such as familiarity with the inspection scheduling system.

**Validity, reliability or just trustworthiness**

Much has been said and written on how to valuate qualitative research, if it is neutral or biased, if it is reliable and trustworthy, if it would give the same answers if repeated at another time. For instance, an important and integral part of the research instrument in a qualitative research is the researcher himself (Bryman, 2012, p. 7; Guba, 1981). Being an instrument makes it important to be able to reflect on the tacit knowledge already held by the researcher prior to the study as well as the tacit knowledge gained during the study (Gadamer, 2013; Guba, 1981). Even though all research should be as objective and neutral as possible, the qualitative research does incorporate a strong link between researcher and the respondents; for instance in the selection of respondents, the risk of meeting respondents with an own agenda and creating an interviewing effect. With this closeness in the research methods there is a risk for subjective elements, which need to be addressed during the research process.

With quantitative research the discussion centred on validity and reliability can establish some level of confidence concerning the quality of the research. Those two concepts, validity and reliability, are directly linked to quantitative research and the difference between quantitative and qualitative research means that other concepts and ideas need to be introduced in order to secure the quality of the research. Fejes and Thornberg (2009, p. 226) use quality while Guba (1981) and Bryman (2012, p. 390) uses trustworthiness as an overall concept to denote a thorough, systematic and well-conducted qualitative research.

According to several authors, e.g. Miles, Huberman and Saldaña (2014), Bryman (2012), Fejes and Thornberg (2009), Corbin and Strauss (2008), Patton (2002), and Kvale (1996), there is no agreed doctrine on how to evaluate qualitative research, as in contrast to quantitative. Instead there are several different ways of discussing quality in broader terms. Bryman (2012, pp. 393) and Guba (1981) put forward four criteria on how to evaluate qualitative
research, a way of redefining quantitative criteria into a qualitative way of thinking. These four criteria are:

(i) credibility,
(ii) transferability,
(iii) dependability, and
(iv) confirmability

They are aimed to represent internal and external validity, reliability and objectivity, crucial for quality assurance in quantitative research. Although they are aimed to approximately match those criteria used in quantitative research, they are used differently.

**Credibility**

Credibility refers to procedures of establishing that the researcher’s impression of the studied phenomena is not distorted by the presence of the researcher and to guarantee that the researcher has been able to identify pervasive as well as atypical phenomena (Guba, 1981).

In this study, interviews with 20 inspectors over three years’ time have been undertaken in order to establish sufficient credibility. Furthermore, this period has been preceded by interviews and onboard studies during the licentiate research as well as by the experience from ten years in the merchant fleet. I believe that all this would cover a sufficient part of what Guba labels *Prolonged engagement at a site* and *Persistent observation* (Guba, 1981). Guba also suggests *Member checks* and *Peer debriefing*, referring to the importance of continuously testing data and interpretations (Guba, 1981).

In this study, the three-step design of interviews has covered a large part of these steps. Between each interview period, the results have been interpreted and discussed with peers, and new questions have been developed in order to test the interpretations. Thus, for each interview period, the interviews have become increasingly validating in character. In order to strengthen the credibility further, the material has been presented and discussed at various seminars consisting of both researchers and experienced ship officers. The material has also been read by individuals with experience of and/or with a close insight into both inspection activities and the organization of the Swedish Transport Agency.

**Transferability**

This criterion refers to the degree to which qualitative results can be transferred to other contexts or settings (Guba, 1981). Guba asserts that some

---

See p. Data collection on p. 23–27 for this three-step design.
transferability between two contexts may be possible depending on their similarities and their thickness in description, but that the qualitative attempt should not be to generalize from one time and place to another. The transferability is more a question of transferring hypotheses (Guba, 1981).

The findings in this study derive from the particular context of the Swedish Port state inspectors during the period of 2013–2015. Thus, the results should not be expected to hold in some other context or in the same professional group in years to come. However, the intention of this study has been to produce a thick description that hopefully can contribute material for hypotheses for future studies in similar contexts.

**Dependability**

Dependability, refers to the degree of stability in results challenged by instability in method or in the researcher as instrument (Guba, 1981). In this study, *overlap methods* have been used to some feasible extent. The interviews have been supplemented with observations and the analysis of results has repeatedly been confronted with new interviews and in seminars with professionals. In this way the important parts of the study have been automatically replicated along the way, although by the same researcher. When it comes to the stability of the researcher as instrument, it is worth noting that in this study, for better or worse, the researcher actually entered a rather familiar field.19

**Confirmability**

Confirmability refers to the degree the study is free from investigator bias or predilections (Guba, 1981). According to Guba, confirmability can be thought of as replacing objectivity (Guba, 1981). In order to secure a high degree of confirmability, this study has taken several steps, which are already mentioned in relation to the previously discussed criteria. I believe that the emphasis on *Prolonged engagement at a site, Persistent observation, Member checks and Peer debriefing* has been important for the level of confirmability of this study (Guba, 1981). Especially important for this criterion may be *Practising Reflexivity* in relation to member checks and peer debriefing (Guba, 1981).

However, I cannot claim that the results of this study are objective in every possible sense. Because the main aim of the thesis has been to present and interpret the Port state inspectors views of their work situation, I can only account for measures taken for objectivity when doing just that. The aim has not been to put forward a complete picture of the Swedish inspection organization. For this, the results from this study would, for example, need to

19 See p. 21, the researcher’s pre-understanding
be balanced by views from representatives from other parts in the hierarchy of the Swedish Transport Agency. This, however, will remain for future research.

**Research ethical considerations**

Research on opinions and experiences of individuals puts demand on the researcher. As such I should behave ethically correct, both towards persons participating in the study and persons who have chosen not to participate, and also towards the persons who are mentioned in the study. The four cornerstones of research ethics – information, consent, confidentiality and utilisation – were discussed before each interview session (Vetenskapsrådet, 2011). The informants were given full knowledge concerning the research objectives, their right to confidentiality and anonymity and their right to terminate the interview at any point.

The field of research in the maritime industry leads to a couple of demands on me as researchers. There was a limited amount of inspectors divided among three different offices in Sweden during 2013–2015 when the data was collected. And as far as possible, there should not be any possibility to single out who was interviewed and who said what. At some points, when the interviews were conducted at the inspector’s office it became practically impossible not to notice my presence. In order to prevent identification of any individual when reading the thesis, some of the quotes have been rearranged. This was done not to change the meaning of the quotes but to reduce the risk of revealing who said what.

An ethical problem has been that it was not possible to inform all people encountered on board about my study. When following inspectors on board, my participation was clarified to the Master of the vessel, but not to everyone encountered during the inspection. This was mostly due to minimise my influence on the inspection process, but also due to the fact that my interest of study was the inspectors and not the inspected part.

The strategy showed positive, since it made it possible to observe undisturbed situations. It gave me the confidence that the operations and conversations studied during the time on board were authentic. A research ethical aspect is that it was unavoidable that some informants became part of the context in the onboard observations, without any opportunity to influence their participation. But since they never have been the focus of the observations and never referred to in the present thesis, the impact must be seen as minimal.
Shipping and Port state control

The modern shipping industry is a complicated affair. Roe (2009) describes it as having polycentric governance and Black (2008) describes polycentric governance as where the state is not the sole locus of authority and that it is fragmented through widespread use of sub-contractors, and interdependence between actors (Black, 2008). At the core of polycentric governance are also five central notions: complexity, fragmentation, interdependencies, ungovernability and the rejection of a clear distinction between public and private (Black, 2001). A polycentric regime is also characterized by being hybrid\(^{20}\), multifaceted\(^{21}\), indirect and the greater the fragmentation of actors in the performance of regulation, the greater the polycentricity of the regime in that sphere (Black, 2001). Shipping has a multi-level control and jurisdiction structure, where various actors impose regulations as well as use different strategies ensuring compliance (Roe, 2009). Bloor et al. (2013) refer to the shipping industry as an industry with globalizing economic processes including vertically disaggregated global value chains\(^{22}\), outsourcing and offshoring.

As seen in Figure 1, in this polycentric industry the safety and security are controlled through flag state control (FSC) and via coastal state jurisdiction through the Port state control (PSC) respectively in their different United Nation (UN) agencies, such as the International Maritime Organization (IMO) and the International Labour Organization (ILO). However, safety and security are also controlled by supra-national\(^{23}\) unions such as the European Union (EU) and their Paris MoU. IMO, being a UN organization, is not the sole maker of regulations and is not even involved in the PSC regime.

---

\(^{20}\) A hybrid network or organization is combining governmental and non-governmental actions and actors in a variety of ways.

\(^{21}\) Several different regulatory instruments are used to counteract one problem: instrument mix.

\(^{22}\) Multi-national companies outsource their non-core functions, focusing on specific core functions, which leads to a disintegration of the value chain – the control over and the integration of the value chain is lost, resulting in a more diversified industry complicating regulation and jurisdiction.

\(^{23}\) Supra-national is a form for an international organization where member states transcend national boundaries or interests to take part in decision-making and vote on issues related to the larger grouping.
Also in Figure 1, PSC in Europe is controlled by supra-national and national organizations not connected to the flag state of the vessel. Furthermore, in Figure 1, private actors not linked to a state have set up their own standards and enforce them through their own inspection, such as the Oil Companies International Marine Forum (OCIMF)\textsuperscript{24} and their Ship Inspection Report Programme (SIRE) as well as marine insurers and classification societies. And this co-existence between mandatory public and voluntarily private dimensions in the maritime industry even more highlights the complexity (Gritsenko, 2014, p. 50). Together with a high degree of globalization, with the interchangeability of ships registries (changing flag), a widespread use of subcontractors for crewing, technical management and economical management for the vessel, an even more intricate picture forms of the complexity of the shipping industry (Alderton and Winchester, 2002). This situation of interchangeability between ship registries may seem a creative adaption in order to avoid flag state regulations and also signals a displacement of risk, from one flag state to another.

\textsuperscript{24} OCIMF is a voluntary organization for oil companies working towards a safer and environmentally responsible operation of oil tankers. As such, it only inspects oil tankers in what is called the Ship Inspection Report Program (SIRE), also known as Vetting.
To complicate the situation even further, a classification society is both working on behalf of flag states through delegation of flag state responsibilities, and marine insurers and vessel owners. The classification society surveys vessels to ensure compliance with the standards, either through delegation from flag states or through their own rules in order to ensure marine insurers it is safe to insure. An important notion when discussing classification societies is that a certificate from them does not express a warranty of safety, fitness for purpose or seaworthiness of the ship. It is merely a verification that the vessel is in compliance with the standards that have been developed and published by the society issuing the classification certificate.

Even though the maritime industry has independent centres of leadership, power and authority with fragmented but interdependent actors, the governance of the industry is still static in its outmost form. It is characterised by a hierarchical structure and a state-centralism that might be outdated. Policies and regulations are derived at the highest level (IMO) in generic terms and then cascaded down through underlying jurisdictions to be operationalized with little or even no control over the outcome (Roe, 2009).

For example, when IMO makes policies at the international level, these might then be interpreted at supra-national level, for example the EU, and then adopted to the EU member state situation. Depending on the roles between EU and the EU member state the process might pass directly from IMO to the state, without the intermediate layer of the supra-national organization. The ambition of EU or other supra-national level might also be to adopt own policies for safety, security and the environment in the maritime industry, and as a consequence these policies need to be adopted at a member state level through national legislation and regulations.

The legal frame

Controls of merchant vessels are conducted through flag and coastal state control according to United Nations Laws of the Seas (UNCLOS) (United Nations, (UN), 1982). Flag state control is derived from the fundamental rule that a merchant vessel on the high seas is subject only to the jurisdiction of the flag state. Up until 1980s this was the prevailing case. Gradually, the tide began to shift as pollution incidents and accidents became more frequent and more known to the public. As a result, attention began to shift towards the subjects of maritime safety, training and working conditions, and protection of the marine environment (Anderson 1998). Also the increased usage of flags of convenience (FOC)25 shifted the balance between flag registers and the areas vessels were

---

25 A FOC is a ship register without any genuine link between the real owner of a vessel and the flag the vessel flies, in accordance with the United Nations Convention on the Law of the Sea (UNCLOS).
trading in. With a lesser degree of vessels registered in EU countries trading around the EU coast and the lack of control of their standards, the focus shifted towards more Port state control than flag state control.

Port state control is premised on the right of coastal states to exercise power over their national waters according to UNCLOS. Internal waters are under the complete sovereignty of the coastal state and, as such, visiting ships must comply with the laws of the coastal state (Anderson 1998). The base for PSC internationally rests on (UNCLOS), (UN, 1982) article 218: Enforcement by Port states:26

1. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may undertake investigations and, where the evidence so warrants, institute proceedings in respect of any discharge from that vessel outside the internal waters, territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization or general diplomatic conference. (UN, 1982)

The regime in Paris MoU

In the European Union (EU), the Treaty of Rome in 1957 (article 75–84) provides the basis for Port state control legislation. Firstly a memorandum was agreed in The Hague in 1978, to audit whether the labour conditions on board vessels were in accordance with the rules of the ILO. Further in the EU an expanded memorandum of understanding (MoU) was signed in Paris 1982 (Paris MoU) covering a larger scope of conventions and regulations. It signalled the beginning of the PSC in the EU.

Through several further Council Directives the appropriate legal procedure was laid down, which was followed by harmonized rules and criteria for Port state control (Anderson 1998). Present PSC in Paris MoU rests on the directive 2009/16/EC of the European Parliament and of the Council of 23 April 2009 on Port state control (EU, 2009). The Paris MoU totally comprises 26 countries in Europe and Canada covering the major part of the European coast.27

The mission of the Paris MoU is to eliminate the operation of sub-standard ships in its area of responsibility. In order to do this a harmonized system of

---

26 There are a total of nine MoUs covering a large part of the world: Paris MoU (Europe and Canada), Tokyo MoU (Pacific Ocean), Acuerdo Latino or Acuerdo de Viña del Mar (South and Central America), the Caribbean MoU, the Mediterranean MoU, the Indian Ocean MoU, the Abuja MoU (West and Central Atlantic Africa), the Black Sea MoU and the Riyadh MoU (Persian Gulf).

27 The current member States of the Paris MoU are: Belgium, Bulgaria, Canada, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Romania, the Russian Federation, Slovenia, Spain, Sweden and the United Kingdom.
ship inspection is used. In 2013 a total of approximately 19 000 inspections were carried out (Paris MoU, 2014). The main goal of the PSC is to check foreign ships of their compliance with international rules and regulations on safety of life at sea, prevention of pollution by ships and living and working conditions on board ships. This does not limit the responsibility of the ship owner and operator for their duty to comply with international requirements as stated in the international maritime conventions.

PSC is not a substitute for flag state responsibility, it should rather be seen as a way of double-checking and enforcing compliance where owner and flag state have failed in their responsibilities. The instruments of inspections are based on fifteen different international conventions and protocols as well as the Maritime Labour Convention (MLC)\textsuperscript{28} (International Labour Organization (ILO), 2006), which covers 35 different ILO conventions (ILO, 2015; Paris MoU, 2014).

Central parts of the Port state control function

The following short paragraphs describe central parts of the functionality of the Paris MoU Port state control system for persons not fluent in PSC to be able to understand the system. It provides brief information both on the inspection system and the system defining the inspection practice in the Paris MoU. This incorporates how vessels are chosen for inspection, type of inspections, ranking of flags and so on.

Clear grounds

If the ship, its equipment or its crew does not correspond with the requirements of relevant conventions or if the crew members are not familiar with essential shipboard procedures, the inspector has clear grounds to take due action. A vital parameter in the legislation for vessels is that the flag state has the sovereign right and the responsibility to verify that vessels flying its flag comply with international regulations. In doing so, a flag state can delegate some or all of its tasks to recognized organizations. As already mentioned previously, UNCLOS hand a right for Port states to verify visiting vessels’ compliance with international regulations. In order to keep the inspections at a minimum a vessel should, after a brief, initial inspection be accepted unless clear grounds for believing otherwise exist (IMO, 1974, SOLAS\textsuperscript{29} Cha I, Part B Reg. 19; Paris MoU, 2014).

The definition clear grounds is also used in the basis for changing inspection type in the Paris MoU system, see inspection type further below.

\textsuperscript{28} MLC – Maritime Labour Convention, a convention establishing minimum working and living standards for all seafarers, adopted by International Labour Organization (ILO)

\textsuperscript{29} SOLAS – Safety of Life at Sea – an IMO convention with the main objective to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety.
Name and shame

A central part in the Paris MoU – or in fact all MoUs in the world – is to use a name-and-shame strategy. Vessels not complying with regulations that have been caught are published on MoU websites, open for all to access. The name-and-shame strategy focuses not only on vessels but also on recognized organizations such as classification societies. The background for the name-and-shame policy is that shipping companies, flag states and classification societies should be dissatisfied with having detentions and deficiencies published openly and therefore work towards a higher compliance with the international regulations.

White, grey or black list of flag states

The name-and-shame policy is tightly linked to the publication on white, grey and black lists (Paris MoU, 2014d). The flag state performance is established annually taking into account the inspection and detention history over the preceding three years. The performance of the flag state’s vessels is calculated and presented on a list marking them as white, grey or black. Where being placed on the white list signals a good performance, a place on the grey list and subsequently on the black list signals a lower performance of the registered vessels during the last three years’ Port state controls.

Performance profile

Performance profiles are calculated for both recognized organizations and ISM companies30 (Paris MoU, 2014c). The profile is deemed either High, Medium, Low or Very Low performance. The performance calculation for recognized organizations takes into account the deficiency and detention history of the preceding three years, while the performance calculation for ISM companies is conducted daily and takes into account the history of the preceding 36 months.

Risk profile

The white, grey and black lists for flag states as well as the performance profile for recognized organizations and ISM companies serve as a basis for the risk profile calculated for each vessel (Paris MoU, 2014). The calculation of the risk profile is based on the vessel’s age, type of vessel, performance of flag, recognized organization and company, and inspection history of the vessel. A vessel will be deemed a high risk (HRS), standard risk (SRS) or low risk (LRS) ship.

Priority

The risk profile forms the basis for the selection scheme and which vessels to prioritize for inspection (Paris MoU, 2014). Periodic inspections are carried

30 ISM companies are companies issuing ISM certificates to vessels.
out at a rate depending on risk profile. Vessels are categorized as Priority I (PI), Priority II (PII) or no priority. A vessel categorized as not having a priority is not eligible for inspection unless clear grounds are believed to exist. Priority I means the vessel must be inspected and Priority II that it may be inspected at the next port of call.

Table 1 presents the selection scheme of how vessels with different risk profiles are to be inspected at different intervals. A vessel with a high-risk profile may be inspected if not inspected for the last five (5) months and must be inspected if not inspected for the last six (6) months. A vessel with a standard risk profile may be inspected if not inspected for the last ten (10) months and must be inspected if not inspected for the last twelve (12) months. A vessel with a low risk profile may be inspected if not inspected for the last 24 months and must be inspected if not inspected for the last 36 months.

Table 1: Selection scheme (Paris MoU, 2014)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Overriding factor</td>
</tr>
<tr>
<td></td>
<td>HRS not inspected in last 6 months</td>
</tr>
<tr>
<td>Ship must be inspected</td>
<td>SRS not inspected in least 12 months</td>
</tr>
<tr>
<td></td>
<td>Ship not inspected in last 36 months</td>
</tr>
<tr>
<td>II</td>
<td>HRS not inspected in the last 5 months</td>
</tr>
<tr>
<td>Ship may be inspected</td>
<td>Ship with unexpected factors</td>
</tr>
<tr>
<td></td>
<td>SRS not inspected in last 10 months</td>
</tr>
<tr>
<td></td>
<td>LRS not inspected in last 24 months</td>
</tr>
</tbody>
</table>

Outside the priority scheme there may be unexpected and overriding factors deeming the vessel as either a PI or a PII. Overriding factors are such as the vessel having been involved in a collision, grounding or other accident or in discharging unlawful substances, or otherwise reported by a member state. An unexpected factor might be a vessel reported by a pilot, a vessel not meeting reporting obligation, outstanding deficiencies, prior detentions and a vessel reported by the crew.

Inspection types

Depending on the category of the inspection, if it is periodic or additional due to overriding and/or unexpected factors, the inspection starts at different levels (Paris MoU, 2014). There are three levels of inspections. A further elaboration on when and how these three inspection levels are put into practice can be found in Table 2, where the different categories of inspection meet different levels of inspections:

(i) Initial inspection
(ii) More detailed inspection
(iii) Expanded inspection
An inspection of a high-risk vessel is always expanded. Other vessels start out with an initial inspection and if clear grounds are found, the initial inspection may be upgraded to a more detailed inspection. Clear grounds in these cases can be such as inaccurate documents, general impression and observations on hull or structural conditions not satisfactory according to a Port state control officer (PSCO)\textsuperscript{31} and 16 other factors (Paris MoU, 2014).

All inspections due to overriding or unexpected factors start as a more detailed inspection and may be upgraded to an expanded inspection if deemed necessary by the inspector (Paris MoU, 2014).

### Table 2: Inspection Type (Paris MoU, 2014)

<table>
<thead>
<tr>
<th>Category of inspection</th>
<th>Ship Risk Profile</th>
<th>Inspection Type</th>
<th>Expanded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Initial</td>
<td>More detailed</td>
</tr>
<tr>
<td>Periodic</td>
<td>SRS</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>LRS</td>
<td>Yes</td>
<td>If clear grounds are found</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Concentrated Inspection Campaign**

Periodically, Paris MoU conducts special inspection campaign’s focusing on a specific area where high levels of deficiencies and detentions have been encountered. The campaigns do not stipulate more inspections, rather the normal inspections are focused on a specific area. The campaigns take place over a three-month period, September to November, and are combined with the regular inspections. The campaign 2014 was concentrated on STCW\textsuperscript{32} hours of rest and was a joint campaign initiated by Paris MoU and Tokyo MoU (Paris MoU, 2014a).

The result of the concentrated campaign was somewhat worrying, with over 912 deficiencies and 16 ships detained due to the campaign during its three-month period. (Paris MoU, 2014e)

Previous campaigns have focused on for example propulsion and auxiliary machinery, fire safety systems, structural safety and load lines and implementation of the International Safety Management Code (ISM Code).

\textsuperscript{31} In official documents from Paris MoU the person conducting a Port state control is referred to as a Port state control officer (PSCO)

\textsuperscript{32} STCW—International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, is an IMO convention establishing basic requirements on training, certification and watchkeeping for seafarers on an international level.
To appeal

A vessel subject to detention can have the detention overturned by a review panel, either nationally or internationally. Owners and operators are advised to firstly use the national appeal process before using the international appeal process. An appeal process does not suspend the detention. The national appeal process is different depending on the nation the detention is issued in (Paris MoU, 2014b). In the case of Sweden, the appeal process is judged by the Administrative Court in Linköping.

In case an owner or operator declines to use the national appeal procedure but still wishes to complain about a detention decision, such a complaint should be sent to the flag state or the recognized organization that issued the statutory certificates on behalf of the flag state (Paris MoU, 2010). The flag state or a recognized organization may then ask the Port state to reconsider its decision to detain the ship. If the flag state or the recognized organization disagrees with the outcome of the investigation, a request for review may be sent to the Paris MoU secretariat. In that case, the secretariat composes a review panel comprising itself and four MoU authorities, excluding the port and flag states involved if applicable. The findings of the review panel are not binding but may provide justification for the Port state to amend inspection data already inserted in the THETIS database. (Paris MoU, 2010)

Qualification for Port state control officers

The central focus point for this thesis is the Port state control officer (PSCO), since he or she is central for the success of the Paris MoU system. This fact is also recognized by the Paris MoU organization, which is indicated by their comprehensive qualification criteria for the inspectors and their training (Paris MoU, 2014). A central notion of the criteria for qualification as a PSCO is the importance of an inspector’s background. A central part here is the emphasis on both theoretical knowledge as well as practical experience. To be qualified, inspectors need either a seagoing background as a Master mariner, a marine engineer or as a naval architect with at least five years of experience. At least one year of experience as a flag state inspector is also a must.

Education and training for inspectors also focus on the conduct of the inspector, i.e. not only knowledge on technical aspects. Paris MoU guides the inspector by a code of good practices for PSCO in conducting inspections (Paris MoU, 2008). Technical aspects as well as the conduct of the inspectors are tested and discussed recurrently at seminars held by the European maritime safety agency (EMSA).

---

33 THETIS database is where inspection results are saved in order to keep records of inspection activities as well as to make them publicly accessible.

34 EMSA – European Maritime Safety Agency – the EU agency that provides technical assistance and support to the European Commission and Member States in the development and implementation of EU legislation on maritime safety, pollution by ships and maritime security.
The inspection regime in Sweden

Swedish Port state control inspections are carried out by inspectors employed by the Swedish Transport Agency. The Swedish Transport Agency is a civil governmental organization responsible for establishing regulations and ensuring that they are abided to by actors in all transport systems, not just sea transport. When the Transport Agency was formed in 2009, there was over 60 inspectors in Sweden, in 2013 there were approximately 45 inspectors left divided between three inspection areas, Malmö, Gothenburg and Stockholm. During 2013 a reorganization of the inspection unit took place.

The reorganization lead to a situation where outsourced inspectors around Sweden centralised to four places, Stockholm, Malmö, Gothenburg and Norrköping, had to cover the entire coast including the lakes. Inspectors are geographically placed at one inspection area and therefore limited in the geographical area of responsibility. All inspectors are based at one of the three towns, resulting in inspectors needing to travel to the different ports in their inspection area depending on where to inspect a vessel (Sundgren, 2014a).

The organization for inspectors in Sweden 2015 are organized in a unit of the Transport Agencies Maritime and Aviation department, led by a Section director and both geographically and with different responsibilities divided in eight sections led by a Section head. The Section head has a central point in the unit, with an extensive responsibility on areas such as personnel issues, management and monitoring, operational development and that operations are conducted according to law (Transportstyrelsen, 2015).

Further, during late 2014, the management of the inspectors at the Transport Agency decided to cut down on the number of inspectors and to merge the sections in Malmö and Gothenburg. The reduction of inspectors was done for two reasons, according to the decision. Firstly, a reduced number of Swedish vessels under SOLAS regulation require fewer inspectors and, secondly, a need to reduce costs was imminent. These two measures lead to a reduction of eight inspectors (Bergman, 2014).

The picture becomes mixed when taking into account articles in Sjöbefäl in earlier in 2014 that stated shortages in the inspection area (Sundgren, 2014b). These reported shortages might be due to the case that only 25 inspectors have the authority to handle PSC and with a total of 530 PSCs conducted in Sweden in 2014, there is a considerable workload. Especially considering that PSC is not possible to pre-schedule. Linked to the workload on PSC is also the standby system, where only 26 inspectors are authorized to be on standby for emergencies where inspectors are needed.35

---

35 Emergencies can be such as a vessel has grounded, collided or other accident requiring professional assistance from inspectors in evaluating possible solutions to the dangerous situation.
Port state control – a professional bureaucracy

Safety and control in the shipping industry

Over the years of maritime history the way of governing has transformed, from the almost regulation-free shipping of the early 19th century, when the first modern safety rules (UK Merchant Shipping Act, 1876) emerged, towards what is seen by many as an over-regulated industry where treaties, conventions, resolutions and circulars count to over a hundred (IMO 2015). Today, there is a system of governing the modern shipping industry using a command-and-control policy as well as a self-regulatory policy in order to enhance the overall safety level and to use the professional competence in the best way (Baldwin, Cave & Lodge, 2011, p. 106; Black, 2001). Modern legislation in shipping, such as the ISM code and the new stability criteria, is based on risk assessment and risk management principles involving not only technical but also social and organizational requirements (Psaraftis, 2012). This can be viewed in the light of the fact that organizational and management breakdowns are often encountered in accidents (Perrow, 1997, pp. 64).

The early modern safety regulations were based on economic rationality in order to lower the risk for the vessel to be overloaded and therefore minimize the risk of foundering (UK Merchant Shipping Act, 1876). In a growing world where shipping was the link between continents, the older networks of professional and personal ties, of face-to-face interactions and specific detailed standards embedded in everyday professional practices, were not enough to secure codes and moral conduct. According to Furger (1997) and Durkheim (1957, pp. 15), this meant that in the late 19th century, the emerging markets created a necessity for something else, either a high-powered government intervention or a system of self-governance. For a self-governance system to function there is a strong need for interpersonal communication, in order to
render and sustain individual accountability. Since personal ties and face-to-face interactions are vital, standards of accountability without exception emerge in situations where members interact closely and at a regular basis. Vice versa, individuals that rarely engage in face-to-face interaction will hardly establish a common standard. In other words: social control, concern for the public image of the profession and social regulation are of importance in order to maintain communication.

In a modern, globalized world, where interpersonal communication, social regulations and moral standards are not possible to uphold by face-to-face encounters, there might be a need for something else, to maintain something similar to moral standard in an industry. The first modern systems of safety rules elicited the command-and-control policy in shipping, signalling that individual action based on economic rationality is not enough given the existence of social rules, practices, and standards of accountability in an industry and of its members.

**Professionals and bureaucracy**

The Port state inspector will here be viewed as a professional in the profession of Port state control officers. Professions are occupational groups basing their work, in one way or another, on knowledge and expertise (Saks, 2012). The society and its labour force comprises different professions organized in a system of professions related to other professions as well as to a socio-political process involving power and interest in the market at a macro level (Abbott, 1988, pp. 86; Saks, 2012). A profession incorporates a strong formal knowledge and has a higher education credential as base (Freidson, 1994, pp. 17/81/82/220). To this we may add the needs for codes of ethics, altruism and rationality (Saks, 2012).

A system of professions has been described as a system where professions orient towards each other, and where professions with very esoteric and complex knowledge and expertise of great consequence to society are seen as more important and are therefore given a higher position in the social hierarchy of professions (Abbott, 1988, pp. 86). A higher position in the system of professions means it is likely that the profession has gained state sanction in return for protecting the public and their clients (Saks, 2012).

Several different definitions of professions and their system have been made by for instance Brante (2009), Freidson (1976), Parsons (1991, p. 19) and Sarfatti Larsson (1977, p. 30), and all have in common that it is the relation between knowledge production (research), distribution (university education) and application (work experience) that is the denominator of where a profession places itself in the system. It can be viewed as a taxonomy and as such it has taken some criticism for being micro-management oriented, viewing

---

36 Micro-management means an excessive control or attention on details.
professions simply as a socially negotiated label based on occupational ideologies in terms of the knowledge and skills involved, therefore missing central parameters in how and why an occupational group is seen as a profession (Saks, 2012). A problem with all definitions is that they do not take into account the dynamics of modern society (Brante, 2009). Definitions, or rather the ones forming the definitions, are trying to be universal in their claim of definitions and therefore become reductionists, maintaining that their definitions are valid regardless of time and place. So, a profession may exhibit properties given a certain time and situation (Brante, 2009).

In order to stay a profession there is a need for the occupational group to appear as a legitimate profession in the eyes of society (Fournier, 1999). Legitimacy is not static, rather something that needs to be designed and re-designed continuously within the profession and in relation to other groups of society. In order to stay legitimate a profession must meet certain criteria through its in-house expertise: to stand for the truth, be effective and serve the society and the social welfare (Fournier, 1999). This means that the profession’s practitioners must be perceived as competent, by:

(i) having professional knowledge (built on a scientific base)
(ii) behaving professionally, and
(iii) having a certain degree of professional autonomy.

Identity and legitimacy are important aspects of a profession. Both identity and legitimacy are constructed and reproduced through the social interactions of everyday life and through the professions’ practice. It has been suggested that there is a distinction between professional identity and identity of the profession (Dent & Whitehead, 2013). While the professional identity is directly linked to the individual and the individual exercise of profession, the identity of the profession is linked to the collective identity of the profession. In turn, the identity of the profession has two sides: group identity and category identity. Group identity refers to how the individual identifies with the group and its codes of conduct. Category identity on the other hand refers to how other groups outside the profession identify the profession. The group identity is maintained through ethical codes and standards and through disciplining those members violating the ethical codes and standards. Category identity is created and reconstructed through how the profession’s association acts as agent for the profession, both in how it delimits its own profession against other professions and also via protection and expansion of its own professional domain.

Port state control officers in Sweden are employed through a governmental agency, which may be seen as a bureaucracy and accordingly, the inspectors may be seen as bureaucrats. Central here is the notion of a contrast between the autonomy sought by the profession and the control exerted by the bureaucratic organization. One of the principals of bureaucracy is that bureaucrats should exercise their authority according to the common good (Hegel & Dyde, 2001,
par. 294; Shaw, 1992). Weber (1978, p. 1000) stresses the importance of bureaucrats being autonomous, rational, reliable and responsible. Autonomous means that they should be independent from influence from other organizations as well as governmental pressure. Rational means an unemotional and impersonal way of conduct, but also efficiency. Reliable means predictability in both conduct as well as outcome of their decisions. Responsible means they see the work as a vocation and profession, a matter of duty and loyalty to the office (Weber, 1978, pp. 212–16, 959). In an ideal type of bureaucracy, bureaucrats are responsible for following rules with dedication and integrity. They should avoid arbitrary action and action based on personal likes and dislikes, and also protect and defend the democratic values of society (Agevall, 2005, pp. 122; Lundquist, 1998, pp. 232). As Olsen (2004) states it:

Bureaucrats are supposed to obey, and be the guardians of, constitutional principles, the law, and professional standards.

**Deprofessionalization**

Bureaucracy in general has for the last decades been under constant pressure from its owners, the government, but also from its clients, the public, to squeeze extra efficiency out of the public sector (Kettl, 1997). Via management reforms in what has been called New Public Management (NPM), the bureaucrat and the bureaucracy have been under pressure to be less bureaucratic and more market oriented, a form of a new responsive management in the public sector, serving citizens instead of the needs of the bureaucracy. The reforms produced a long list of promises such as a smaller, less interventionist and more decentralised government; improved public sector efficiency and effectiveness; greater public service responsiveness and accountability to citizens (Jones & Kettl, 2006; Olsen, 2004). New Public Management reformers have claimed that the era of hierarchical and rule bound bureaucracy is over and a paradigmatic shift to markets and management has been presented as a generic medicine for all bureaucracies (Olsen, 2004). Nevertheless, the New Public Management has received a lot of criticism for not being new at all and that the heavy dose of economic models and tactics has reduced the government’s pursuit of the public interest (Jones & Kettl, 2006; Kettl, 1997; Olsen, 2004).

A brief look at NPM might suggest that it means less bureaucracy and more freedom for the professional working in the organization. It may seem that the hierarchical bureaucratic control has been replaced by collegiality. But the opposite is suggested by NPM stressing management reforms and more emphasis on result and performance of the individual, former bureaucrat. The management claims a need for systems controlling performance, systems such
as Total Quality Management (TQM) or Balanced Score Cards (BsC) (Agevall, 2005, p. 21).

NPM means that a single unit of the governmental organization has a larger degree of freedom to form the way of conducting its business at same time. However the performance monitoring from overlaying governmental organizations is much more thorough, in the way of measuring performance outcome and client satisfaction. Therefore every single case an official in the organization deals with is of importance for the performance of the whole organization. The NPM organization needs to spend more of its resources on controlling and checking, which leaves fewer resources to handle cases and create value for the client (Agevall, 2005, p. 175; Olsen 2004; Kettl, 1997; Olsen 2004).

At the frontline of bureaucracy we find the Street-Level Bureaucrat, the bureaucrat or official working in direct contact with citizens or private companies (Lipsky, 1980, p. 3). It is on this level we may find the PSC inspector. Street-level bureaucrats are such as social workers, different kinds of public inspectors, teachers and law enforcement. They are placed at the frontline of the organization and are difficult to manage, both via bureaucracy or NPM (Agevall, 2005, p. 122). In general according to Johansson (2006, p. 56), when they meet citizens and private companies in their work they represent the occupational group with the largest impact on the actual political outcome.

Street-level bureaucrats are relatively independent with a rather large freedom of action. In their line of work they are rarely able to meet every criterion of principles for a public official. Johansson (2006, p. 57) as well as Lipsky (1980, p. 50) mean that it is not because they are worse than others in moral and ethics. Rather, their working conditions and working process make it hard to follow every detail of the organizational ethics defined by their managers. According to Lipsky (1980, p. 40) there are two main conditions defining the freedom of action: The street-level bureaucrat is:

(i) often involved in organizations whose goals are so extensive, complex and visionary that they can be described more as guidance for actions than as concrete goals, and

(ii) the resources available, both in personnel as well as economically, are limited.

The street-level bureaucrat is therefore forced to prioritise between goals and how the available resources are to be used. To manage this, they produce simplified decision-making processes in order to rationalise their daily work (Johansson, 2006, p. 62). Agevall (2005, p. 122) means that their relatively large freedom of action gives them a great responsibility and that they therefore need substantial ethical guidance.
There is a risk for a professional specialist working in a controlled environment, such as a bureaucracy, to feel powerless and deprofessionalized. Because of this, a sense of alienation might force its way upon the individual. Alienation has been defined as [... the degree to which man feels powerless to achieve the role that he has determined to be rightfully his in specific situations] (Clark 1959). The term alienation stretches back to Weber (1930) and Marx and Engels (2001)37 who all argue that alienation is a state of inadequate autonomy to the extent that the work is perceived as external to the individual. A more modern interpretation of work alienation provided by Seeman (1971) incorporates five components of alienation: powerlessness, meaninglessness, normlessness, isolation and self-estrangement.

Powerlessness can be linked to a lack of autonomy and participation, where employees have limited freedom to apply control over work activities (Mottaz, 1981). Meaninglessness can arise when workers feel they contribute little to the overall production process and do not see the significance of their role in it (Mottaz, 1981). Self-estrangement at work has been associated with work tasks with a narrow scope and depth, where the employee feels alienated from the work process and the work process is independent of the employee’s contribution (Mottaz, 1981). When norms or codes of conduct do not effectively guide the behaviour towards personal goals, a sense of normlessness and isolation might occur (Mottaz, 1981). A vital part of the alienation process is the organizational structure of work, especially centralization and formalization as well as the structural conditions implemented in the bureaucratic workplace. Studies on alienation have found centralization and formalization at the workplace to have the direct effect of increased alienation (Zeffane, 1993; Kakabadse, 1986).

The level of alienation depends on the type of organization the professional works in. Scott (1965) argues that professionals should find themselves more comfortable in autonomous organizations as opposed to heteronomous organizations. In an autonomous organization administrators delegate the control of most professional activities to the professional staff, as opposed to a heteronomous organization, where administrators keep control over professional activities (Scott, 1965). This despite the belief that centralisation or a strict hierarchy of authority leads to greater efficiency (Weber 1978, p. 973/1002). A hierarchy includes the dualism of a need for predictability and certainty and at the same time a need for autonomy and participation in decision-making. In larger bureaucratic organizations, hierarchy can have a direct negative effect on employees by limiting their ability to exert self-control (Sarros, Taniewski, Winter, Santora & Densten, 2002). Research shows that when employees are allowed to participate in decisions about their work they exhibit higher levels of job involvement and lower levels of alienation (Akel & Siegel, 1988).

As mentioned already, a vital part that distinguishes a profession from an occupation is the professional standard incorporated into the profession. Roberts and Donahue (2000) list six marks of professionalism for a profession:

(i) master of specialised theory,
(ii) autonomy and control of one’s work and how one’s work is performed,
(iii) motivation focusing on intrinsic rewards and on the interest of clients, which takes precedence over the professional’s self-interest,
(iv) commitment to the profession as a career and to the service objectives of the organization,
(v) sense of community and feelings of collegiality with others in the profession and accountability to those colleagues, and
(vi) self-monitoring and regulation by the profession of ethical and professional standards in keeping with a detailed code of ethics.

Scott (1965) lists four areas of conflict between the professional and the bureaucratic organization:

(i) professional resistance to bureaucratic rules,
(ii) their rejection of bureaucratic standards,
(iii) their resistance to bureaucratic supervision, and
(iv) their conditional loyalty to bureaucracy.

The main problem is centred on the location of authority within the organization, i.e. where the professional in the bureaucratic organization finds their work subject to evaluation and control by administrative individuals outside of their professional group. This control drives them from authority of the professional standards of their own professional group. A professional model of organization assumes that work is controlled in terms of ethical standards determined by colleagues in a professional association rather than by supervisors in an administrative hierarchy. The deprofessionalization and the alienation are directly linked to the type of organization, where the professional individual works. Sociological and social psychological explanations show that deprofessionalization and alienation derive from social-structural conditions that break up work into discrete, controllable and manageable units that limit the individual’s autonomy and decision-making (Mottaz, 1981; Sarros et al., 2002; Seeman, 1971).

38 An intrinsic reward is an intangible award of recognition or a sense of achievement motivation. It is the knowledge that you did something right, or made someone’s day better, an individual personal satisfaction such as derived from a job well done.
The bureaucrat of Port state control

Studies concentrating on PSC inspectors or inspectors active in the maritime sector are uncommon. Studies focusing on inspectors in other domains are more frequent. Studies in this subchapter, such as Johansson (2006), Lindblom and Hansson (2003), Lindblom et al (2003), May and Wood (2004) and Evans and Harris (2004) are all studies on inspectors in sectors other than shipping. The PSC inspector works daily with inspection on privately owned vessels and as such, their work is much in line with the street-level bureaucrat in the way that their daily work means meeting the persons directly affected by their decisions face to face. The inspector works in an environment with many goals; the inspector has to inspect enough vessels, adhere to budget restrictions, conduct, equivalent inspections, develop competence to obtain expertise in a large number of areas and they internationally represent Sweden on specialised conferences.

Some of these goals are complex and some of them may restrict the inspector’s autonomy and self-control, leading to deprofessionalization. The goals of the organization force the inspector to make active choices in their daily inspection work, both choices on which vessels to inspect and what to inspect on board. There is always a need to prioritize between personnel and economic resources as well as deciding which risks should have precedence over others. These prioritizations are made in close encounter with different working conditions and the inspector needs to constantly develop decision templates (Johansson, 2006, p. 141). These priorities are not only made out of a professional need but rather because of restrictions from the overlaying hierarchy. Restrictions from the overlaying hierarchy are derived from a need to manage the inspectors; in this case NPM can be seen as a system that strives towards restriction from above. According to Lindblom and Hansson (2003) there are four main approaches to making decisions on what to inspect:

(i) Pick the greatest risk and deal with that first.
(ii) Utility-maximising – inspect the sites where most people are at risk or are affected, in terms of injury rates as well as size of company or site and number of employees.
(iii) Largest sites and companies available.
(iv) Totally haphazardly.

The PSC inspector has little or no influence over the selection of sites to inspect, since the THETIS database automatically chooses the vessel to be inspected according to its risk calculation and its prioritizing scheme. This reduces the inspector’s ability to decide what to look at when inspecting a vessel. However, the Paris MoU documents on inspection practices clearly specify how the inspection should be carried out, even pointing out specific
areas to focus on. This might further reduce the autonomy of the inspector, as previously discussed regarding deprofessionalization.

The aim for the inspections is to get the inspected party to comply with the regulations. Compliance can be reached in different ways: by negotiating, persuading or by legal sanctions (Baldwin, Cave & Lodge, 2011, pp. 239, Hutter, 1997, p. 16). According to May and Wood (2004) in their study on building inspectors, compliance is best met through negotiations by interaction between inspectors and inspected. The focus on compliance through negotiation is also underlined by Baldwin, Cave and Lodge (2011, pp. 239). There is, however, an important aspect on the encounter between the inspector and the inspected, which is that the inspector is the one that defines the conditions of the meeting (Lipsky, 1980, pp. 117).

Lipsky relates to the street-level bureaucrat in his work, not only focusing on inspectors but rather different kinds of employees in public services that have daily interaction with citizens in various forms. By controlling the meeting conditions, the inspector has the opportunity to get in the optimal position to negotiate successfully. To judge the progress on an inspection, the inspector uses his expertise to evaluate the behaviour and responses to challenges the inspected part makes. In Evans and Harris (2004) elaboration of Lipsky’s work they focus on discretion in social work, Evans and Harris (2004) mean that the street-level bureaucrat or the inspector, being at the bottom of the hierarchy in the organization, needs to control the meeting situation with the inspected part in order to maintain control of his or her own working conditions.

At the same time, the inspector also needs to work out routines to be effective. That need of efficiency creates hidden backup time, time hidden from the organization. This time is needed in order to gain control over one’s own working conditions to circumscribe the effects of NPM. In return, the organization meets the hidden backup time with task allocation. This is something that according to Lipsky (1980, p. 44) might lead to target displacement for the whole organization. This since the inspectors when dealing with their task allocation might focus more on work completion instead of work tasks in the inspection.

As mentioned above, compliance with regulations can be reached through different ways: negotiating, persuading and by legal means. Another alternative is to impose direct or indirect economic sanctions on the inspected part. It is the inspectors’ credibility, expert knowledge and ability to negotiate that constitute the ability to invoke compliance. This is a clear form of the inspector’s professional knowledge that is deeply rooted in the profession’s properties. At the same time this exemplifies the problem: seeking a balance between impartiality, strict rule enforcement, compassion and flexibility. It is usually referred to as the public sector’s dialectic (Lipsky, 1980, p. 16; Lundquist, 1998, p. 123). This is a problem that applies to everyone who works in public administration and it is linked to effects of enforcement on compliance. According to Lindblom et al. (2003) in their study on inspectors in the Swedish
Work Environment Authority, very little is known about the comparative efficiency of different enforcement and inspection strategies carried out by the inspectors.

Further, according to Lindblom et al. (2003) there is no certain relation between rule compliance and lowered injury rates; the effect depends more on the type of inspected activity. They argue that in most cases there is a relation like when inspecting machinery safety, but in the case of regulation concerning internal health and safety systems of the regulated company, the relation is less certain. Furthermore rule compliance as such, is not the intended final outcome; rule compliance and enforcement strategies from the inspector are steps towards overall improved working conditions (Lindblom et al., 2003). Depending on the organization’s work methods the inspector might encounter different levels of deprofessionalization.

From this chapter we conclude that different aspects in the organization of PSC may cause feelings of powerlessness, meaninglessness, normlessness, isolation and self-estrangement among the PSC inspectors. This is based on the opportunities for autonomy and self-control, related to how their work is planned and conducted, and how this is communicated to the inspectors. The denominator is if the professional decisions are made by the professionals themselves or by administrative persons without knowledge of the professional work. Other denominators are how the inspectors conduct their work and how they make their decisions, if the work is carried out in a bureaucratic way, strictly impartially, autonomously, and with integrity and self-control. One might also focus on the inspector’s power, how they conduct their governance over others, and the professional code of ethics in their governance over others.

As pointed out in the chapter Shipping and Port state control, the shipping industry is complicated. In this study it is the Port state control inspector (PSC inspector) that will be in focus. The departure for this study is that PSC control inspectors forms a profession, and that the PSC inspectors are professionals in a bureaucratic system.

The PSC inspectors in Sweden are employed by the National Transport Agency, a governmental organization, which has the task of upholding the regulatory framework and also to develop it. There are reasons to expect that the situation of complexity and fragmentation may impact on the PSC inspector’s ability to sustain a sufficient professional identity. Moreover, because of the profession’s responsibilities in this complex and yet hierarchic structure, it can be added that the situation may impact on the PSC inspector’s autonomy and independence.
Specified from previous mentioned in this chapter, the theory centres around these three main areas:

(i) The challenges for the professional individual.
(ii) The conduct of the professional towards others, especially the ones being inspected.
(iii) The professional’s status in the organization regarding autonomy and control over the work.

Central to the challenges for the professional individual is whether the work is demanding in the sense that it requires expertise and specialized knowledge, or if it is merely a routine work with checklists and rule-following tasks. Another challenge is self-control; if the professional has control over his or her own work and work methods. The discussion is needed, since deprofessionalization is a challenge that the professional workforce encounters.

The conduct of the professional towards others can be focused on how the inspection practice is conducted towards the inspected part. Here the conduct involves ethics in the sense that the inspector and the inspected form a relation that should increase the quality of the inspection. There is also a need to discuss the close relationship and the ties binding the inspector to the inspected.

The professional’s status in the organization relates to the discussion on alienation and deprofessionalization as well as the discussion of the profession’s status towards other professions. A circumscribed professional person runs the risk of alienation and deprofessionalization. In a later stage this will probably affect the work. A market-oriented approach seen in modern bureaucracies adopting NPM principles also affects professionals and their work.
The Swedish inspectors’ work and views

The results of this study are presented in three main sections below; the technical context, the social context, and the professional role. All quotes in this chapter derive from data collected during interviews and conversations during observations.

The main elements of the inspection of vessels, or indeed all inspections, are its two differed parties: the inspector and the inspected. During the inspection there is an interplay between these two parties. Since this study is based on the inspectors’ view, the focus is on their perceptions of different aspects of their work.

As for the PSC inspector and their inspection activities, there are two main contexts that need to be addressed. The first is the technical context, in which the inspectors’ role is to make correct judgements on technical aspects, related to safety and security, during the inspection. The second is the social context in which the inspectors’ role is to manage and handle the inspected part. In this latter context, it is central for the inspector to keep to a correct social role in order to carry out a professional inspection. The importance of these two contexts became clear during the interviews and observations. It also became apparent that the most difficult part of an inspection often was to interpret and correctly adjust to the social context. The third section, the professional role, was added because it became obvious that the professional role was important for the inspectors and because that role cuts into both the technical and social contexts.
The contexts

The contents of the two forthcoming subchapters are centred on the actual inspection situation, where the inspectors discuss the conditions that exist i.e. here and when they perform their inspections.

The technical context

The first lens used in explaining context is focusing on a technical perspective. In trying to understand the technical context the discussion centred first on a specific PSC case. The Freyfaxi as already presented in the introduction do give example of some interesting thoughts on PSC and its context.

Discussing a case

The case of the Panama flagged M/S Freyfaxi gives rise to a few interesting remarks. Between 2008 and the grounding in 2011, the Freyfaxi was subject to eight PSCs, all conducted in Nordic countries: Norway, Denmark and Sweden. The Freyfaxi was an old, small coaster of 1 133 GT. The keel was laid 1965 and the vessel had served under several different names before it was named the Freyfaxi. During these eight PSCs she got two detentions and a total of 33 deficiencies. But also, at three PSCs she did not have any deficiencies at all. When discussing the Freyfaxi with one of the inspectors it became clear that there is a great difference between a PSC and a flag state inspection.

You should be aware that PSC is not an inspection; it is just a control, as is mentioned in SOLAS chapter 1 regulation 19; if no clear ground is found, it is good enough.

When grounding, the Freyfaxi had documents and certificates issued by a total of five different authorities, class certificates issued by the Greek bureau International Naval Surveys Bureau (INSB) and she was newly re-classed in February 2011. At the final PSC, conducted after the grounding, the Swedish inspector stated: We should not have this kind of vessel along our coasts (Smålandsnytt, 2011). Severe deficiencies were found: there was no lifeboat, it was not possible to board life rafts from the vessel, and there was a severe lack in fire safety and not enough food for the crew. But six days prior, the vessel was, after a more detailed inspection, found good enough with nil deficiencies by another inspector. When this occurs within a system subject to so much trust and confidence to protect European coast lines from substandard vessels, it raises questions on the reliability and trustworthiness of the system. When discussing the case of the Freyfaxi during the interviews, inspectors did generally conclude that the system was hollow and not robust in its outcome.
Was it a Friday afternoon when the PSC was conducted? But sure it is hollow, but as said earlier, a single inspector that might just needed an extra mark in his protocol to conclude his ten inspections that year. There are a lot of pitfalls in the system.

The system of counting inspections to reach certain points for maintaining an inspector’s qualification for PSC might lead to a hunt for inspections, just to make up numbers, especially if the distribution of PSCs is not maintained evenly between inspectors. Further pitfalls in the case with the Freyfaxi might be the age, type of vessel, the deficiency and detention history, the classification society, the issuing authority of certificates and the conditions for the crew. In either way, a risk assessment beforehand should be suitable in order to minimise potential surprises during inspections.

It is a work organization thing, to organise and plan the work to minimize potential problems, like a single inspector getting on board in this mess, he might just be overwhelmed with problems, and wherever he turns a new problem arises. In this case, working in pairs, assessing problems in advance might just be the way to solve problems. If you look at the history for instance, is it a vessel with no deficiencies in the past, a high performing class and an ok flag, then there is a low probability of any serious problems.

Nevertheless, no matter how detailed or exact technical instructions are, in the end decisions are made by human inspectors based on their knowledge and expertise and with the limitation of the work situation. The inspector’s conditions can affect his or her judgment in every situation. A strong gut feeling may be the deciding factor.

I know how we inspectors do sometimes, taking a little short cut, you cannot be bothered to dig into it all, if all certificates look good, it is ok, good enough.

*To be prepared*

Firstly, in the discussion amongst the inspectors, a vital part of the PSC is the preparation conducted prior to the visit on board. Here, preparation is not only to prepare for the known, but also to prepare for eventualities during inspections. Preparedness is both to be able to handle the crew the correct way as well as being aware of technical aspects specific to the vessel about to be inspected. It may also be the case that the crew is or is not prepared for the PSC, since a PSC is always conducted without notice. The crews on board tankers for example are trained and well prepared for inspections, but as has been reported in other studies and according to the experiences of some of the inspectors in this study, there is a weariness of inspections in shipping.³⁹ This is due to the

---

³⁹ This has for instance been described in Jense (2009, pp. 155).
The fact that crews on board many vessels have to deal with inspectors associated with a number of different organizations.

There is a positive as well as a negative effect of frequent inspections: the positive is a customization of dealing with inspections; the negative is a weariness of being inspected. Negative aspects are both the interruption of work activities and the total number of working hours spent on facilitating inspections. The opposite of the tanker crews’ general preparedness is found amongst smaller bulk carriers and coasters, often with crews from low-wage countries. According to the interviews these crews does not seem to be that prepared and understanding towards the PSC. Another factor is which classification society that has classed the vessel and which flag it flies. In these cases, on bulkers and coasters, if the classification society is one with a lower reputation and performance and the vessel flies a flag of convenience (FOC) it sends out signals to be more alert in the PSC, according to the interviewed inspectors.

You have to think again. Firstly, reflect on type of flag, what conventions or codes has they ratified? Is it a small almost unknown class? What type of PSC history does it have? All this sends out a message to me, it influences my attitude towards and during the inspection. I need to be more briefed on the actual case of the ship, something that does require more time in advance and I know, there is a kind of avoidance of preparedness among inspectors, often due to lack of time.

On the one hand, the inspectors feel the need to be strictly professional in their approach. This includes trying to be impartial and avoid hasty judgments based on the vessel’s background. On the other hand, in order to be properly prepared, they may feel a need to make a thorough background check on the vessel at hand. To be impartial comes with an ambition to treat everyone equally, something that the exercise of public authority should aim at. Inspectors from time to time try to be impartial in advance by not doing too much research on the vessel’s background.

I check THETIS, the latest report, if there is any deficiency to re-check. That is my preparation. There should not be any difference apart from checking what rules to apply in Rule check. The rational preparation for inspectors, based on the background of the vessel, adds up to:

---

40 Previous studies has revealed the same effect, for instance, Hjorth (2012).
41 Rule check is a tool for inspectors to guide them in the regulation flora. With the insertion of the vessel’s age, type and flag the Rule check tool guides the inspector in what set of rules is to be applied for that specific vessel.
Can I anticipate any problems? If so, what type of problems and how do I need to address them?

The anticipations referred to may be based on relatively objective information, such as Paris MoU’s risk criteria regarding flag and recognized organizations (Classification societies), but also on more subjective judgements concerning crew’s country of origin, type and age of vessel, and its specific history.

**Differences and inconsistencies**

A PSC should not be confused with a flag state inspection, which is much broader and more thorough in its form. The focus of the PSC is to eliminate sub-standard ships and therefore the focus is on seaworthiness, protection of the environment and the living and working conditions of the crew. According to the inspectors, the term seaworthiness has a great impact on the Swedish inspectors and their way of inspecting. This might also be one of the reasons for the substantial difference between Scandinavian and Mediterranean countries’ statistics on detentions and deficiencies in Paris MoU.

The general view amongst inspectors in Sweden, based on participation in the EMSA seminars\(^\text{42}\), was that inspectors from Mediterranean countries were not so lenient on their counterparts and were more thorough and demanding in their notification of deficiencies. One reason for this was believed to be that the inspectors in Sweden generally focused more on deficiencies that affect the seaworthiness of the vessel. Some remarks that were made by inspectors from other countries were not deemed to relate to seaworthiness even in broader terms.

A stamp that is missing is not affecting the vessel’s seaworthiness if there is a valid document but that document has a failure of a seal or something is missing. In Scandinavia, we say ok fix it, call the operator and the owner and get it settled verbally.

One reason for this more lenient way of conducting PSCs in Scandinavia might be the fact that all PSC inspectors are active flag state inspectors at the same time. The flag state inspector’s role is a bit different. The inspector gets more familiar with the inspected vessel, as he or she often comes back to it and meets the same people on board. As the inspectors see it, in that role a more educative way of conducting office is more useful. For the Swedish case, the number of flag state inspections have decreased over time, due to factors such as lesser Swedish flagged vessels and delegation of flag state inspection to classification societies.

\(^{42}\) Seminars held at the European Maritime Safety Agency to enhance the inspectors work on PSC.
The overall ambition of the Paris MoU is that the inspections in different nations should be in line with each other. Even though there is a rather large amount of documents covering inspection practice and how to fulfil the work as a PSC inspector, there are several accounts from the respondents that it is up to the single PSC inspector to perform according to the instructions, both in order to interpret the conventions and regulations but more importantly, at the actual inspection making his or her professional judgment on the findings.

It becomes subjective at times, even though we have pretty tight regulations, it becomes subjective and up to the single inspector to make judgements based on his experience.

At first the difference is between nations because in different nations they tend to have different ways of performing a PSC. The differences can, according to the inspectors, relate to two things:

(i) the national organization and
(ii) the background of the PSC inspector.

The different national organizations range from private hired PSC inspectors, via civil state organized PSC inspectors to PSC inspectors employed in the Coast Guard. Another factor is whether PSC is the only work carried out by the inspector. In Sweden, for instance, the PSC inspectors are employed as flag state inspectors primarily, while in some nations PSC is the only work they do. A flag state inspector’s additional work regards technical issues, such as studying blueprints for construction, refitting and renovating of vessels as well as work linked to management of vessels. PSC is, according to the inspectors, more about checking compliance than actual technical issues, or as one interviewee describes the difference between PSC inspectors and flag state inspectors.

A flag state inspector is more on the nuts and bolts level than a PSC is. I would argue that a flag state inspector is a little more skilled than a pure PSC inspector’.

The active flag state inspector might be more technically skilled, but not necessarily more skilled on conducting a PSC. The training policy for being a PSC inspector concludes that a total of ten PSCs each year plus a seminar is enough to fulfil requirements. And, according to the interviews, it could be argued that conducting ten PSCs in one single year does not make you fluent in

---

43 The documents concerning conduct of inspectors state that: *The Paris MOU was put in place in order to create a harmonized system of ship inspection [...]* (Paris MoU, 2014). Together with the harmonisation the inspections should be based on three important rudiments: Integrity, Professionalism and Transparency, which according to Paris MoU means: * [...] moral soundness. [...] professional standards [...] implies openness and accountability* (Paris MoU, 2014).
conducting PSCs at all. There are not only differences between countries’ inspections but also differences in the inspections in a single country.

In Sweden there are three inspection areas and there are suggestions in the interviews that the different areas have different inspection regimes, and different priorities during inspections. Prioritise means that every inspection needs to focus on what is most demanding and deemed necessary to inspect, since time is restricted, it does not necessarily mean that one area is more important than another. The difference in Sweden also depends on the background of the PSC inspector and their working knowledge of PSC. As one of the PSC inspectors argues regarding different background of the inspectors:

There are things you feel really confident about and known professionally. For a mariner, the lifesaving, radio and navigational equipment are his babies. An engineer has his obsessions or special pieces that he looks at. Shipbuilders try to catch a little here and there and some in between, but then they have their specialties, like freeboard and ship strength.

The harmonized system of PSC ensures inspections to be as near equivalent as possible. In order to succeed with a harmonized system the routines for controls have been vastly modified over the years.

Before, PSC was simple in its reporting routines, it was more or less just one form to fill in about the vessel, any deficiencies you wrote in plaintext with a small, easy and plain coding, and it was straightforward so to speak. Now they have refined it, or complicated it, some might call it. With every certificate on the vessel noted with correct dates and all, it takes ages to finish and focuses more on formalities, totally unnecessarily.

The respondents recurrently reverts back to the increased focus on formalities during PSCs, both as experienced in the way Paris MoU develops the PSC and how inspectors in different countries’ handle PSC.

I think, I have a feeling that in countries where there are persons just conducting PSC and nothing else they tend to focus more on formalities and small things. Here in the Nordic countries we are a bit broader and pragmatic in our way of conducting PSC. It is based more on professional skills. If everything were in order except one thing, I would deeply investigate why and after that make a feasibility assessment before noting anything.

In an attempt to try to raise both the national and the cross-national consistency levels, regular seminars are held, both nationally at the Swedish Transport Agency as well as internationally at European Maritime Safety Agency (EMSA). The ambition is that every PSC inspector in Sweden should attend a national seminar every other year and an international seminar every
five years. With this division between national and international seminars, the experience gained at the international seminars can be shared to those PSC inspectors not attending international seminars that specific year. This means that the seminars are oriented towards different targets. The international seminars are concerned with the aim of levelling out the cross-national disparities and the national seminars should more be on sharing experience. Sharing experience is also a way of levelling out the discrepancies between inspectors. Up until the start of the study, national seminars were more used in trying to even out interpretation of regulation and to introduce new regulation. Later, seminars incorporating more experience sharing were commenced.

We pull out statistics now and then. And we see differences, especially at EMSA seminars between different countries, in how they report deficiencies and detentions.

At the international seminars at EMSA there is much focus on teamwork, linking PSC inspectors from different counties together, and the aim is to even out our differences.

Even though the focus of the seminars is on reducing the differences, the respondents’ view is that this is not working like it should. The differences are not decreasing according to the respondents. As stated in the interviews, the rest of Europe is acting as a filter, protecting Sweden from sub-standard vessels and that this was the answer to the fact that Sweden does have a significantly lower detention rate than other nations. Whether this is due to actual differences in inspection activities or different standards of vessels is not discernible in the material. One thing possible to determine and that was common with the interviewed inspectors was that the number of PSCs had decreased during recent years. According to the interviewee, this was a direct result of the change towards the prioritizing scheme. The older fair share deal, where 25 per cent of all vessels were to be inspected, had been scrapped in favour of the prioritizing scheme.

Yes I think so, that one could say that we inspect fewer vessels now than before, because it is recognized that we do not come up to our quotas, since there is not that many PI and PII up here in Sweden. We are not doing our fair share, as we should do. While down in southern Europe they fill their fair share and instead have too much to do.

Related to the issue of the decreased number of PSC is the question regarding selection of vessels and the previous schemes focus on deficiencies. Where vessels with a deficiency already noted at previous PSC could be exposed to a new PSC at future port visits. It was a case of a natural follow-up on vessels with deficiencies noted. With the new prioritizing scheme there is a perception of an inferior follow-up on vessels with deficiencies.
Regulation and growth

With all the regulations and conventions setting the framework for the inspection, there is often a problem relating to the instructions on how to perform an inspection on certain key elements on board. One would think that a vessel equipped with the latest technology is a positive thing, but that is not always the case. The instructions on how to test modern equipment can be so difficult to manage for the crew that the equipment is not used as intended or not even used at all. It might even signal a problem in training and education of the single seafarer or a language barrier between the inspector and the crew.

The last stupidity I experienced at a PSC was when I came to the bridge on a newly built vessel. They had two ECDIS, with two independent feeds, really nice, so I checked their certificates; they sailed on nautical charts, paper charts! So I asked why and they said that at a PSC it was such a tough test on their instruction how to test ECDIS systems on board that it was absurd, and they would not get through a PSC, according to the Master. The PSC asked the officers such strange questions that they could not answer them. They knew the systems and such, but you know if you get questions in various kinds of English, it is not always easy to understand what they are asking for. So they had the world’s finest ship with full ECDIS but they did not use it, because they would get stuck in a PSC.

The inspectors’ general view was that the growth and complexity of the regulations in shipping was a problem, but they disagreed somewhat on what the core of the problem exactly was. Some had it that the problem was related to the growth of the total number of regulations and the expanding contents of the regulations; some believed the interpretation of the rules in different nations was the problem and others argued that it was problems in accuracy emancipating from burden and stress for the crews. Within the last argument, the respondents felt that a lack of resources on board was leading to a lesser degree of compliance with general international conditions on maintenance and housekeeping.

The PSC covers areas ranging from construction of vessels, via behaviour controlling regulation, to human aspects. The interviews revealed that this is such a broad area to cover for one single inspector that the inspection merely became an ocular check for compliance rather than an inspection on the actual functions on board the vessel.

One particular problem with growth and complexity emerged during the interviews. It relates to which regulation has priority over the other. For example, have safety or security pre-eminence above the other? According to SOLAS (IMO, 1974, SOLAS, Ch. XI-2, reg. 8) safety has pre-eminence above

44 the International Convention on Load Lines (IMO; 1966)
45 the Convention on the International Regulations for Preventing Collisions at Sea (IMO, 1972)
46 the MLC (ILO, 2006) and the Food and Catering Convention (ILO, 1946)
security, nevertheless it becomes unclear as to how to interpret and decide which one of them to follow, before the other. For example safety relates to the total safety of the vessel with emphasis on fire safety, watertight integrity and lifesaving equipment, while security focuses on protection against crime and terrorism.

There is often a clinch between safety and security. What is the priority, safety or security? There is always a limit. The fire door is locked because of security, but if a fire team needs to get through this or as an escape route, well you know, it is correct from the ISPS point of view, but maybe not so good from a safety aspect.

The inspectors in the interviews felt that the crew was somewhat misled by the recent focus on ISPS\textsuperscript{47} and security. The crew might have been following one set of rules, before the other, but are reprimanded for it because the rules are contradicting each other. The issue is not necessarily about how complex a rule is, it can just as often be that the different rules tackle a problem from different angles, in this case something as simple as a door; should it be locked, unlocked or open?

In order to facilitate the inspectors’ work on board, crewmembers directly involved in the inspection are prepared to meet the demands from the inspector. Preparations are carried out on board in order to minimize the duration of the inspection, since the inspection takes resources from routine work on board as well as rest hours. It is also something that signals a willingness to ease the disposition of the PSC and at the same time shows that the vessel and the crew are in good order.

They are more on their toes now, for example they have documents ready in folders in the correct order as our PSC protocols are lined up.

\textit{On site}

Even though the background to PSC is multifaceted with problems relating to growth and complexity of both the regulations and the inspection situation, the most common deficiency according to the respondents is quite simply missing records or sloppy housekeeping. With sloppy housekeeping, they mean a deficiency relating to negligence in the running of the ship, for instance floor plating in the engine room not properly cleaned, a wedge blocking a fire door or a date being wrong in a certificate.

\footnote{The International Ship and Port Facilities Security Code, a chapter in SOLAS aiming to enhance maritime security}
It is probably a record note, blocked fire doors or engine oil on the floor plate; such are the standard things you see often in deficiencies. It is a subjective judgement there of course if you find sounding pipes open in the engine room, loose floor plating or oil on the floor plating. Should you note it or just highlight it to the crew?

There is not only a subjective judgement but also a limit to how much you can look for deficiencies. An initial PSC takes about 1.5 to 2 hours, and half of that time is focused on documentation. There is not that much time left to find more complicated deficiencies and therefore more focus is put on the obvious and easily found deficiencies.

If the documents are correct and there is nothing else I see directly, we should accept it and say thank you and walk away. It is difficult to determine how much to dig, it is subjective; one might dig a bit further and the other a little less, it is difficult to balance the bar.

To control documents there is not a great need for a technical background or a longer period of education for the inspector. If the inspector has a general knowledge of the documents and what to look for in them, it is enough. The respondents agree that the difficult part is the rest: it is during the inspection of the vessel where the profession and its practical knowledge are put to its test.

But then, it is more about the values you cannot touch, the gut feeling you need to have to determine if there is anything fishy or if this is a well-maintained vessel.

But there is a large discrepancy in the way a PSC is conducted, depending on the response from the crew. A crew signalling self-confidence and knowledge has the advantage over a crew not so fluent and confident in their work.

Sure it has. For instance, if I like to see a fire drill and the chief officer just responds OK, I’ll fix it, just come down to the poop deck in 15 minutes and I’ll sort it out, then I get a feeling they know their business, have control and a trained crew. It is a check point, a thick in the box so to speak. It makes me relax and sure makes my job easier.

There is a difference between different types of vessel. Discussed amongst the respondents was the difference between tankers, chemical as well as oil, on the one hand and dry cargo vessels on the other. The common thought was that the tanker crews were more used to being inspected and therefore did not see it as a big thing when inspectors got on board. They are also well trained in drills and therefore make it easy for the inspectors to get a good view of their knowledge. This is much due to the vetting inspections the oil companies do regularly. It should be noted that the interviewees also mentioned that there are very well managed vessels in other areas as well, not just in the tanker market.
There are several respondents that often refer back to issues about how PSC are performed in different countries, how the regulations or the PSC instructions are interpreted by the inspector. One interviewee related to a problem on how to interpret different regulations, in this case the ISPS-code and the need of a padlock on a locker:

I was once called by a Swedish captain, he read a deficiency they had on their latest PSC: *Acetylene and oxygen locker not locked with padlock according to the ISPS code*. He asked me if I understood, not a single thing I said, I have read ISPS code so many times and there is nothing in the ISPS code that the locker should be locked with a padlock.

Although the problem related to the locker not having been locked with a padlock is a minor detail, it signals that inspectors do not fully comply with the regulations that they have to use as a basis for inspection. Or it may signal that they use their own judgement on issues not fully complying with regulations. A missing padlock is also minor in terms of the cost of rectifying the deficiency, but it does create an observation remark on the vessel, the company and the flag history. Something that later, together with other remarks, might be a burden and generate a higher target factor and thereby a higher probability of being inspected.

The crew on board need not only to work with their own interpretation of the complex set of rules, they also need to handle the individual inspector’s interpretation of the conventions and regulations. There are also discussions on inspectors combining these factors with the application of non-compulsory guidelines. Several respondents recognized discussions with crewmembers from different nations on how different inspectors made their own interpretations on regulations. This, in spite of the implemented Paris MoU tool Rule Check System, which should eradicate the different interpretation of rules and regulations and also the individual inspector’s view on which rule to comply with.

It is not just related to how the inspectors interpret the conventions but also how they interpret the PSC instructions and the directive guiding the inspector in their daily work, something that has to do with cross-national consistency and how the directive is interpreted due to its complexity. And according to the interviews, some inspectors perceive that other inspectors do not always follow the directives and guidelines, leading to incorrectly filed inspections.

Inspectors notice deficiencies and even detentions on initial inspection, and there are several countries that historically does that, they add a deficiency that should be recognized as clear grounds and even sometimes a detention but still ticks in the box for initial inspection, it is in contrary to the directive.
Overall, in order to enhance the outcome of the inspections in the whole Paris MoU, several respondents called for more focus on specific targets and vessels.

There is within the scope of the PSC if you interpret the rules a little freer, *Unless clear ground* is of course the crux. You have this coaster, a smaller vessel, our professional knowledge tells us that it is not possible for them to fix the travel pattern they have with the small crew they have on board and at the same time be in line with the regulations. Then you have full right to make an inspection of this. Nobody can stop you from doing it. It is possible just if we dare.

Coupled to the discussion on rule-based inspections or interpretation of regulation was a discussion that emerged on the cases where everything seems to be in order but just not might be in order. Everything is not as clear as it seems in every case. Missing documents, faulty technical equipment or broken lifesaving appliances are rather straightforward to discover. But the cases where there is something that is not clearly visible are many and difficult to manage.

It is more a sense of something not being right without being able to spot it at that moment. In those cases I need a little bit of time, undisturbed time to get a grip of the situation and the feeling. As with a ship I controlled, I instantly felt there was something wrong the moment I put my foot on the deck, but I just could not point it out or find it. I went on with my control, but it kept on nagging me. Then, a while later I found it, so obviously, I just could not understand how I could have not seen it directly when I was standing on the deck.

On the occasion mentioned in the quote above, the inspector was alone conducting his control, which is common. In this case it went OK, he did find the thing nagging him and the detention was correctly placed. But on several occasions inspectors do not have the time or the ability to find it at the time for the control.

It has happened that when I got back to the office for debriefing I suddenly realise I have been deceived. Usually it was accompanied with a gut feeling on board that I could not put into context; where to start looking.

In these circumstances it is an advantage to be two inspectors conducting a PSC. Then, one can continue the control and the other investigate something suspicious or call a colleague for council on something specific. There is a need for backup in these situations. But at the same time, a sound professional judgement gained by experience makes these situations easier to handle. The experience can both be gained before the person being employed as an inspector as well as during his or hers work as inspector.
You learn those special key elements, the little things, the secrets, the special things you have at sea. Some procedures are good to have stored in the back of your head because it looks very similar on most vessels under most flags.

I think working at sea on SOLAS tonnage is the best way to gain this gut feeling on inspections. But also during the two trainee years we have before being able to conduct a PSC by ourselves.

It is not only working experience at sea that is valuable for the work on conducting PSCs, also work experience as a ship builder in their expertise in ship construction. But, maybe most important is the ability to handle people with different cultural backgrounds from all around the world, that work on board vessels in the merchant fleet.

The social context

The second lens used in explaining context is focusing on a social perspective. In this lens, the social meeting between inspector and the inspected part is the context in focus. During interviews, the inspectors did often revert back to a discussion on the roles, the roleplay between inspectors and inspected as an important aspect of the work conducting PSC and other inspections.

Meeting the crew

One should not forget that the inspection could be seen as a questioning of the crew’s professional judgement as well as an unwelcome intrusion in the social life on board the ship. A conflict situation is thus close at hand. Therefore the social context in which the inspection is conducted is highly important. In order to perform a professional supervision on board, the mutual attitudes displayed by the vessel’s crew and the inspector are vital. Not only as a social and accommodating factor, but more importantly also in order for the inspector to be able to work efficiently. Even though the attitude shown towards the inspector is something that should not influence the supervision, it does, subconsciously or consciously.

It is more about respect in both directions, the crew and the Master respect me and the work I need to do, and I respect them for their work and situation. For instance, if the Master is tired after a couple of hours at the bridge during navigation, if he is cooperative, and with the gut feeling I get on board that this looks like a very good and well maintained ship, I try speeding up my business and get documents ready as fast as possible in order to leave sooner rather than later.

The differences in attitudes displayed by shipmasters or crews are in most interviews put forward as central. Both in terms of attitudes related to different cultural backgrounds and as attitudes related to different vessel types.
Especially the relationship of vessel types and attitudes is commonly referred to in most interviews. The perceived differences here are related to the crew’s experience of being inspected. Vessels more exposed to different inspections, such as tankers, generally display an easier attitude towards inspectors.

The ones you do not need to think about is those who are relatively well looked after, or has another, higher, limit, are tankers where the vetting inspectors have already raked the path for us. They are drilled in vetting and PSC is another type of vetting.

As has been noted in earlier reports on inspectors and inspections there are different approaches taken by the inspectors towards the inspected part. One of the biggest differences in approach is if the inspector is to take a role as a cop or as a consultant. The choice between these two different roles determines how the inspector carries out the inspection as well as the outcome of the social interaction. It is also in the relation between these two roles one of the largest difficulties lays when it comes to being an inspector. There is a consensus in all interviews that it is important to tread carefully when conducting a PSC. Even though the power incorporated in the office is comprehensive, there is not always the need to use it. As one of the interviewees stated it:

*You do not have to spell it out to them, what power and authority you have.*

It is something that everyone knows about and has to relate to. Although there is a lot of discussion going on during inspections, the exercise of power is continuously more or less related to how the inspector chooses to conduct the inspection. The inspector can choose to keep an open or a closed form of inspection towards the crew, something that invites or counteracts a conversation on the ongoing inspection.

Yes, it is actually to be able to handle people. Regulations and conventions vary widely from ship to ship, you can be a Master on construction of ships, crewing, crew license or protection from water pollution or whatever, there are a lot of rules about everything, old and new, that is one thing to learn. But it is probably the most important feature, being able to meet people. You either have it or you do not. And if you do not, you should not be an inspector at all.

In being able to meet people lays not only the ability to handle them but also the ability to read the situation to be able to decide how to conduct the inspection in the best way possible. In this ability lies also the skill to know when to educate and when to punish. The role as a cop or punisher rests on the strict rule of following principle, where a deviation from the right always marks a deficiency or a detention depending on the severity of the deviation. However, the role of

---

48 For instance May & Wood (2003), in their study of building inspectors.
the educative consultant sees the overall picture aiming towards a higher seaworthiness and therefore has more focus on helping the crew to correct things before noting it as a deficiency.

We must be a little flexible and diplomatic; it does not do any good to rush around, yell, point and say this or that. The goal for us must be to ensure that everything is as good as possible, to keep a high level of seaworthiness instead of primarily noting a deficiency. Sure, there will be errors in the statistics, but so what?

Especially vital is the ability to handle the Master, since the Master is the person that the inspector meets most of the times. It is also the Master that handles the communication with the vessel’s owner or management company. It is especially in the social connection to the Master where the possibility to take the role of an educator or a punisher becomes apparent. The decision is very much a response to the way the Master acts towards the inspector. The interviews indicate that, even if the professional judgement should not be – and in most cases is not – affected, it is difficult not to be affected by the way the inspector displays himself or deals with upcoming problems during the inspection.

Sure, Masters vary from being very friendly and willing to show you the whole ship to that they want to tell you to go to hell. It is kind of part of the game, it is included.

The problem with having different roles to put on is that the inspector, not being familiar with the vessel or its crew, must at short notice decide if his or her actions should be educating or punishing. At the beginning it is a kind of a test, to see how the Master reacts to certain comments. It is also worth mentioning that the mere appearance of the inspector is an infringement to the normal routines for the crew and the Master.

The Master might have a long passage into the port, have not slept all night and I appear as an unwelcome guest. I can understand Masters not always being that easy to handle.

In these cases, the inspector’s first impression is vital. If it is a good one, the general thought among the inspectors is to speed up the inspector in order not to disturb the crew and its Master more than needed. It is a case of respecting each other for the work that needs to be done, but also a case of convincing the Master that a speedy inspection is possible, if everything is in order and everyone is cooperative. It is in everyone’s best interest and it is here the consultant steps in as an inspector, being able to talk to and persuade the Master to cooperate and sell the inspection so the work gets done in an efficient way. As already mentioned, the interviews indicated that a more educating style was often preferred. Several inspectors made the remark that if they did see a minor,
easily corrected problem they usually just told the crew to fix it and then carried on with the inspection without noting a deficiency.

An inspector is put in many different situations during a control or inspection. There are very bad vessels where much is of poor quality and the detention is not hard to motivate, and there are good vessels just stumbling on a detention. A control situation can vary from clear to not so clear for the inspector and a situation that an inspector can hardly imagine beforehand. Linked to this is the crew’s response and attitude towards the inspector in the particular situation. There are cases where the inspector has noted a deficiency or even a detention and where the crew and especially the Master start to argue. The interviewed inspectors’ view was that a situation of argumentation often was linked to the reputation of the vessel, the crew or its flag, but also linked to money. Inspectors mentioned cases where the Masters risk a fine for every deficiency noted during PSC. Or that the vessel’s leisure fund gets rewarded for a PSC completed without deficiencies and therefore a deficiency would hinder the bonus from being paid out.

If I do not find anything else than a minor flaw, I would not have the nerve to write up a deficiency on something very minor under circumstances where I know it would mean repercussions for the crew.

This puts the inspector in a very difficult position. Will he or she be strong enough to resist the argument and ignore a crew appealing? It should be noted that this was discussed in terms of minor deficiencies and not linked to severe deficiencies that might be ground for a detention. In this argumentation with the crew there is a connection to the professional role of the inspector, is he or she equipped with authority and power enough to resist the crews influence and is there a backup, an organization that supports the inspector in these complicated situations?

The professional role

If the previous parts dealt with the situation at hand, technically and socially, surrounding the inspection situation, the next part will deal with discussions focusing on the role as a professional person conducting PSC. It is most likely that a person's perception of his or her own professional role will be influenced by the perceived organizational setting in which the person works. Therefore, a brief recapitulation regarding the organizational situation under which the PSC inspectors work may be in place before presenting the results of this section. PSC inspectors are since 2009 employed in a civil governmental organization, the Swedish Transport Agency. Prior to the formation of the Transport Agency
the inspectors was employed in the Swedish Maritime Inspection that was a part of the Swedish Maritime Administration.

Although the inspection unit was a part of the administration, the unit was led by a Maritime Safety Director that was directly appointed by the government i.e. the Ministry of Enterprise. This meant that the maritime safety was an activity that had high governmental priority and members of the maritime inspection unit had via its Maritime Safety Director a direct link to the highest of government decision making.

Throughout the interviews it was my impression that the inspectors, through these organizational changes, felt that the value of their professional role was fading. Firstly the formation of the Transport Agency meant that the Maritime Safety Director was placed under the Director General of the Transport Agency and secondly the word Safety was deleted in the title. Later with a reorganization of the Agency in 2013 the Maritime and Aviation department was formed further moving down the Maritime Director under the Department Manager of the Maritime and Aviation department. This department deals with a wider responsibility than the mere inspection. In a few years, the Maritime Safety with emphasis on inspection has been downshifted from a direct link to the government, to a sub-division of a department of the Transport Agency. This was viewed as a very clear organizational change that might signal a lower focus and importance of Maritime Safety and its inspection activities.

Authority and power

As a consequence after an inspection the most severe result is a detention and as such it is the last step on a ladder of consequences when conducting a PSC. According to the interviewed inspectors, they use a five-step ladder, some formal, some more informal. Firstly, there is an informal remark of a deficiency, where the inspector gives an oral remark as a way of helping out, instead of noting the deficiency in the protocol; this gives the crew a chance to rectify the deficiency without it being reported in the Paris MoU database THETIS. Secondly, a formal deficiency can be noted in the protocol and the formal note of deficiency can be given in several steps, depending on the severity of the deficiency. There might be a deficiency that can be handled by the vessel in due time, which therefore allows the ship continue to sail. It can be a deficiency needed to be rectified before next port visit or a deficiency needed to be rectified at a shipyard visit or even a deficiency to be rectified before departure.49

Depending on the severity of the deficiency and the complexity to rectify it, there might be a need for further discussion on how to rectify it. During the interviews the inspectors discussed the boundary between the different actions

49 The list of the five steps: 1. Informal remark; 2. A deficiency not so severe, the vessel can continue sailing; 3. A deficiency that needs to be rectified before next port visit; 4. A deficiency to be rectified before departure; 5. A detention.
and also, how the decision process was conducted. The process is handled through a discussion with the vessels flag state or recognized organization, in order to certify that the vessel’s crew will rectify the deficiency if the vessel leaves the port. The last step on the consequence ladder is a detention, and a detention always needs to be rectified before departure.

Of course we have power as an inspector, we have tremendous power and it is vital in all terms not to misuse it. For instance, I can go on board a cruise vessel with thousands of passengers and detain it, something that would cause big problems for vessel and company. You have to tread carefully.

In this quote lies the essence of the power to be an inspector, to have the right to detain a vessel even if the stakes are high. Even though there is a large degree of power for the inspector it is a question of common sense not to misuse it. There has to be a power balance between the crew and the inspector, even if the inspector has the backing of the authority integrated in his office.

There are many aspects of having the power and authority of an inspector. First, referring back to the quote, there is a large responsibility and trust placed on an inspector that has the power to detain a cruise ship with thousands of passengers. Secondly, this power is not only used by the inspector to get the vessel and the crew to comply with the regulation, it is also used by the crew against their management and the vessel’s owner.

Several of the interviewed inspectors had experienced situations where their inspection was *hijacked* by the crew in order to make the inspector aware of potential problems on the vessel. The problems had been reported to the management of the vessel but not given clearance for the crew to correct in accordance with the crew’s vision of how the vessel should be maintained and managed. The intention in such cases is to use the inspector’s decision as a way of exerting pressure on the vessels owner.50

In principle, the power and authority the inspector can use on the vessels’ crew as well as the inspector’s power and authority that the crew can use against their management are both exercised through influence. The inspections are not command-and-execute situations, where the crew would have to comply with everything the inspector commands. Inspections are more of a strategic situation, where the social setting surrounding the inspection calls for a delicate and professional mix of power and authority exercised by both sides. Of course, the interviews confirm that the inspectors do have a great amount of power, but not a sovereign power to dictate, and if the crew sometimes make use of the inspector’s power a rather delicate situation emerges.

50 This has been described in other studies, such as Hjorth (2012).
They were more grateful before than now. Sometimes, in the beginning, it felt good to make a PSC. The Master would say, for example; _help me, put this as a deficiency otherwise we will not get it fixed. I have been nagging but cannot get it fixed._ It is not really like that way now. But sometimes it still happens that they are smiling and acknowledge that they have been asking for something for a long time. You feel you are helping.

During inspections not only the onboard safety is important; the safety for the inspectors must also be taken into consideration. There are two main factors affecting the safety during the inspection work, both have to do with backup. The first factor is whether one or two inspectors are present during a PSC. The second factor is the backup plan available if something happens during the PSC. When discussing safety during inspections, four main categories of events that might jeopardize the inspection emerged:

(i) attempt of bribing,
(ii) threat of violence,
(iii) attempt to use influence to change an inspector’s mind, and
(iv) use the situation with a single inspector to play out his or her alternative courses of action.

According to the respondents, there are in the Swedish Transport agency a general guideline, issued by the Director General that concludes that at every task carried out outside the office there shall be a discussion on the risk of being alone.

You should consider being more than one; it is both about the risk of threats and other irregularities. There is always a risk of getting it back on yourself, if you are two, there is a witness of what you have done, it will not bite you afterwards that you did this or that, that you let everything slip and you got an envelope afterwards. It is hard to defend yourselves against such thing if you were by yourself during the inspection.

Being two inspectors during PSC is something that is much asked for and discussed amongst the respondents. A general opinion was that the dissatisfaction on conducting inspections alone was somewhat increased during the timeframe for the study. The interviewees put emphasis on the exposed work environment conducting inspections alone. One difficulty is the standby call system, where a single inspector is responsible for PSC and emergency inspections in a particular district. The inspector on standby might be called out during the night or weekends to conduct emergency inspections or PSC. With the limited number of well-experienced inspectors available, there is always just one inspector on standby per district. There are situations that can become difficult to manage for a single inspector.
When a vessel is aground, there is the police, coast guard and representatives from the vessel’s owner and everyone is arguing and shouting about something, there is chaos and I need to be able to relate to that. Especially when involving foreign vessels where we as flag state inspectors are regarded as high up in the hierarchy and there is a need to make tough decisions, in those cases I always want to be two inspectors at the site.

These situations discussed in the quote are always unpredictable. They happen all year round and cannot be planned for in the routine daytime schedule. As in the Freyfaxi case, a single standby inspector was called out to conduct an inspection and a PSC after the vessel had run aground. In that case everything went well even if the situation became complicated.

I have never been in a threatening situation but I do not know what to expect when the VTS for instance calls me in the middle of the night reporting a grounded vessel. Is it a well-run ship where they just made a mistake or is it a situation with a bunch of drunks? It creates a stress for me.

A different matter is what type of backup an inspector has when required and how it is arranged. According to the interviews, any detailed plan or arrangement for backup for the individual inspector does not exist. Two situations in need of different backup plans can be whether support is needed for the actual inspection or if support is needed in dealing with a threatening situation. It has to be noted that, according to the interviews, there has not been any threatening situation during Swedish PSC reported at all. Either way, there is no clear backup plan for threats or attempts of bribing during inspection. For the inspectors, it is more a case of contacting the coast guard or the local police and hoping for the best.

In cases dealing with the actual inspection and professional judgements, the latest reorganization of the Swedish Transport Agency has compromised the ability to seek backup. Since the merge of the shipping and air traffic inspection areas, the nearest manager might not even have a professional experience from shipping, which can be seen as a clear drawback for the inspector. This lack of backup was stressed during all three interview periods. Where a clear and present backup-plan was much sought for but not resolved during the years of the study. Instead, the inspector is more dependent on collegial assistance and on establishing a direct contact with the vessel’s classification society than getting backup from a senior manager. Or as one inspector sees it, when problems occur:

Well, then it is time to call the boss, or ordinarily to seek advice from colleagues when practical things in the inspection require clarification.
Conducting PSC is somewhat different from other types of inspections or controls. During a PSC an inspector is supposed to deliver a complete result and a definite report with references to current regulations. Several other kinds of inspectors are not obliged or even supposed to do this. When inspectors at for instance the Swedish Work Environment Authority conduct an inspection, they only deal with urgent threatening situations directly on site, other situations are noted, documented and taken back to the office for internal reporting and discussion before delivering a final inspection result.

I think you would get closer to the regulatory requirements by doing so (as the Swedish Work Environment Authority, author’s note). Then, as an inspector you would be able to choose to note deficiencies or not to depending on how difficult it becomes to handle them. You can have a sense of something being wrong but you cannot assign it to a regulation or point at it directly, you need to browse the regulation and meanwhile everyone is looking over your shoulder, waiting impatiently for a result. If you had the opportunity to bring back the inspection results to the office and then discuss it with colleagues and jurists, the results might be even better related to the regulations and the result more equivalent between inspectors and situations.

A switch to an inspection regime as mentioned in the quote above is something that would mean a revolution for the whole inspection strategy in the maritime industry. It might not be acceptable that a vessel continues sailing awaiting the results from the PSC. On the other hand, acute deficiencies or detentions could situations be dealt with directly by the inspector and non-seaworthy vessels would not be allowed to continue sailing until detentions were corrected. Instead there might be a need for further inspections, to check the handling and correction of the deficiencies and detentions.

**Autonomy and control**

There was general consensus among the interviewees that the control of the inspector’s work had increased, not so much the control of the specific inspection situation but more of the work as a whole. The discussion ranged from having more power and a higher degree of autonomy before, to the control being more linked to the quality of the management of the specific inspection area. Mostly, the discussions during the interviews concerning autonomy and control centred around two parts:

1. Control of work hours and work planning and
2. The way detentions were managed.

Even if there is a clear definition of when a deficiency or a detention should be noted, there is a large degree of freedom left to the inspector’s judgement to decide on the consequence of the remark. The measure that has the most
consequences, detention, is also the measure surrounded by the most bureaucracy. In order to detain a vessel, the inspector first needs to contact his or her superior, and then do a round with the legal department of the Swedish Transport Agency. After that, if the decision on detention still stands, a formal decision on detaining a vessel can be made. Thus, there is a restraint placed on the inspectors in order to minimize incorrect detentions. The interviews indicate a lack of communication between the inspectors, the management and the legal profession.

Yes we did have more power earlier than we have today. Earlier it was more straightforward, maybe in a bad way, because it could give rise to more errors. Nowadays, we minimize errors but at the same time we are more cowardly. Now, we are more likely to let things pass than before.

On the other hand, a vital role in this detention bureaucracy seems to be played by the management and the communication climate at the section of maritime supervision of the Transport Agency. It was a common view in the interviews that if the department head would use his or her professional knowledge as a bridge between the inspector and the legal profession, there would be a larger degree of understanding of decisions amongst inspectors.

Well, it is more about how good the management is. If you have a boss that you can contact, that trusts and knows my professional knowledge, it is easier. Before I notify the Master I always have a conversation with my boss, so we speak the same language and are at the same level.

One problem for the inspectors is that a detention in Sweden needs to be filed both in accordance with the Swedish regulation and with the international regulation. This means that an inspector needs to note two different references depending on who is the receiving part. If the receiving part is the vessel’s Master, the reference needs to be in line with the actual international regulation. When the detention is to be established legally in Sweden, the reference needs to be in accordance with the Swedish regulation. According to the interviewed inspectors, this has led to some misunderstandings between inspectors, section leaders and legal officers.

There used to be great freedom for the inspectors to use their judgement in passing a ruling on a detention. Now that this freedom is constrained by the legal officer, a feeling of being put in a straitjacket has been mentioned in the interviews. These discussions should be put into the perspective of the freedom previously entrusted to the inspectors, and also of the total number of detentions placed by all inspectors in Sweden; with an average of six (6) detentions per

---

51 Noted during data analysis of Swedish PSC in Paris MoU database THETIS.
year among the about 25 Swedish PSC inspectors, many of them have no hands-on experience of how the detention system actually works.

Linked to the discussion on detention and the bureaucracy surrounding it, in the inspector’s view, is the role of the management and other decision-making professions and a discussion on strategies to work around it. Something that can be interpreted as how to manage the system in order to have as good work situation as possible. In the interviews, several inspectors talked about the opportunity to use the code *To be rectified before departure*. The code means that a noted deficiency should be corrected and then re-checked by an inspector before the vessel is cleared for departure. This can be applied instead of a detention, since it does not require the bureaucracy that the detention does.

If you do not want to take the discussion with the legal department, there is a way of putting a detention but not doing it at the same time. On stuff not serious enough to jeopardize the seaworthiness of the vessel, but still grave, I use the code *Rectified before departure*.

The interpretation might practically mean the same as a detention, without the bureaucracy surrounding it, but the result is still not totally correct according to Paris MoU. Every vessel is marked according to its performance; its detentions and deficiencies are calculated to label the vessel, as well as its flag and the recognized organization (RO) with the right target factor. If detentions are filed as deficiencies, the basis for the calculation becomes incorrect. The creation of such workarounds is a common effect of a bureaucratic system, where the street-level bureaucrat, or deck-level bureaucrat to use a maritime expression, adapts to the prevailing circumstances and adjusts the methods to cope with an environment not suited to the tasks.52

Even if it is not right, I can understand using it. Many that have worked for a long time as inspectors would note a detention and then get it ripped apart by a lawyer, it is enough to have ticked the wrong box on the form. My experience is that I am being attacked by the lawyers. My feeling is that it is more about twisting and turning the law than about seaworthiness. And then you just cannot be bothered with arguing, you think it is crystal clear but the other side does not.

The work as inspector for both PSC and the flag state means that there is a large degree of independence and trust placed on the inspector. The inspector is judge, prosecutor and clerk at the same time. Previously, the transport agency placed a lot of responsibility on the single inspector to plan the work. For instance, one inspector was responsible for a specific shipping company and all inspections of their vessels, both the actual inspections as well as planning when to conduct them.

52 These adaptations have been described by others as well, such as Lipsky (1980) and Johansson (2006).
Earlier I had responsibility of about 15 vessels, to arrange contact with the owner and to plan the inspections. But they have removed that responsibility now, so today I get a work order from the central booking site to inspect a specific vessel. They do not want us to plan ourselves; I think they believe there is a possibility that some are planning a little too loftily.

There might be a positive as well as a negative outcome of the change in work assignment. On the negative, according to the interviewees, the link between the inspector and the ship owner is lost. That relationship could mean a high degree of specific knowledge, which might prevent detentions and in turn increase the seaworthiness of the vessels. On the other hand, the link might have become a bit too close in some cases. The distinction and relation between the inspector’s role as educator and consultant on the one hand and the punitive and policing role on the other hand might then be jeopardized. With the new system there is also an increased demand for documentation of all actions relating to a specific vessel, since it might not be the same inspector inspecting the vessel each time like in the previous system. This increased documentation is perceived as tedious by some of the interviewed inspectors.

Economically there have also been changes. In the previous system the inspector could plan inspections so that they met the best criteria both for the inspector and the vessel. For instance if the inspector was supposed to travel for an inspection and knew that another vessel in the same area was to be inspected in a short while, he or she could plan both inspections at the same occasion in order to save travelling time and expenses. With the new system, the personal responsibility for the inspector to plan the work is not there anymore, a result that is perceived as inflexible by the inspectors. The responsibility for the work to be planned, both for the inspectors and for the vessels, now lies on the managers of the booking system. The system is seen as making a preliminary plan, where the inspector needs to check and double check the planned inspection with the actual vessel. This means that the work required is doubled, both for the inspector and the vessel’s manager. In contrast, on a positive note, it is perceived that this has evened out the workload between inspectors.

It is up to the section head to coordinate our work to get the most out of it, both for me as well as for the vessel’s owner.

The new booking system does not administer PSC, only the work conducted as a flag state inspector. This means that PSC is still managed on a day-to-day basis in the three different inspection districts in Sweden. In all three areas, an inspector is on standby for PSC and emergency inspections in the case of accidents or incidents. As described in the previous chapter, the districts are large and therefore the inspector on standby might be subject to rather long travels. Previously, inspectors were placed around the coast, in order to minimize travelling time and increase work efficiency. To facilitate
management and control of the inspectors, local offices in Karlstad, Kalmar and Sundsvall have been closed and all inspectors are centrally placed in Malmö, Gothenburg and Stockholm. Inspectors experience that they have lost the closeness to the inspected vessels.

With the technology at hand, computers and mobile phones, I personally think we should be more available and present around the country. Otherwise travels consume way too much time. To be entrusted to be more in the field, with only a rallying point to share experiences and information, would be ideal.

With the implemented prioritizing system in PSC, a nation cannot skip control of a vessel with priority PI with the explanation that the control requires too much travelling time. At the same time, if one should follow the internal instructions in the Swedish Transport Agency to be two inspectors on site if possible, travelling time and expenses for one inspection would be rather high.

Path towards deprofessionalization?

There are many rules and regulations. It is one of the charms of this job, that even after a long time, you never get fully educated – there is always new stuff to discover.

As discussed in a previous chapter, professionals in bureaucratic organizations experience a tendency of deprofessionalization due to New Public Management. This tendency has also been indicated during the interviews with Swedish inspectors. The experiences of deprofessionalization in PSC can be summarized to four different problems, all concluding the feeling of a lack of professional challenge in developing the ability and the professional judgement of the inspectors:

(i) fewer newbuildings, reducing the technical knowledge and the technical challenges,
(ii) a strong lobby for delegating flag state inspections to recognized organizations,
(iii) a management not willing or able to support a professional development of inspections in Sweden and
(iv) PSC as a strict regulated inspection.

Respondents in the interviews often fall back on the problems surrounding their own professional situation. To be a flag state inspector sometimes dealing with newbuildings, involves different and higher demands than merely being a PSC inspector. There are discussions about a lack of professional challenge when just dealing with PSC. In light of the diminishing Swedish-flagged fleet, the work as flag state inspector, sometimes dealing with newbuildings, is rarely done these days. The stimulating challenges of working with more technical and
demanding tasks develop a deeper knowledge for the inspectors. On the daily routine PSC there is not a problem with lesser knowledge on technical aspects.

If there is a lifeboat with holes in it, lifeboat ladder with worn out ropes, missing signs or oil on the plating, it is easy to see. But if the basic requirements of SOLAS are not fulfilled, if there are faulty penetrations of watertight bulkheads or missing emergency exits that should be there – those are things you do not see if you’re not well experienced on newbuilding inspections.

The quote above describes the essence of the discussions during the interviews of professional judgement amongst the inspectors. A PSC is rather basic, straightforward and easy to conduct in most cases. But a PSC should be more than just acknowledging that a vessel fulfils the international regulation superficially. To just maintain the professional experience amongst inspectors PSC is not deemed enough. There is a need for more technically challenging tasks to maintain knowledge and a feeling of high standards. The more intense focus on PSC for inspectors is also linked to the ongoing demand for flag state inspections to be delegated to recognized organizations. This demand, put forward by ship owners, is a way of reducing costs and administrations and facilitating the work surrounding inspections of vessels. However, one function of PSC is that it controls that both flag states and classification societies have performed acceptably.

PSC is to control that classification societies do their job on flags that do not bother to do it themselves.

There is a strong sense in the interviews that this delegation process of inspections is a dangerous development, a case of chasing lower costs at the expense of maritime safety.

Without our own inspection, we would more and more be becoming a low standard and cheap register, where the class does everything and we just put our stamp on the paper.

Further training of inspectors is something linked tightly to a possible depprofessionalization of inspectors due to changed work tasks. There is a feeling amongst the respondents that the competence is slowly decreasing due to a lack of demanding and complex work tasks. During the interviews, there arose a discussion on the need for a training process to gain hold of the profession’s knowledge and to change the depprofessionalization process.
Today, the Swedish Transport Agency does not work at all with educating inspectors in how to conduct a good supervision. What you do is initially learn the rules and regulations straight off from A to B, then just follow all the others. But there is more to it than just regulations.

What the results during interviews show is a lack of a centrally arranged, internal, collegial discussion on how to conduct a good supervision and sharing experiences on good and bad examples to learn from each other. To share good and bad examples might be sensitive in some cases and therefore it has not been a central part of the experience sharing processes earlier. As an agency working with control and supervision there is a need for an internal audit on all PSCs, especially on those that have been complicated. And then share these experiences on internal seminars to further develop the expertise of the inspectors. Not only sharing experiences between inspectors locally but also between districts.

I do not know that’s the problem, if it is better or worse in other areas. But I know there are differences; I know that in one area they always used two inspectors for PSC. But if that resulted in better controls I do not know. There are many situations where there are good reasons to discuss whether one thing is better than the other, but it is not done.

Amongst some of the respondents there was a discussion on how the Swedish Transport Agency centrally lacked vital ability and willingness to conduct good inspection practice on both PSC as well as Swedish-flagged vessels. A good inspection practice involves a tight communication with the crew, discussing different problems with them and solving problems together in the best way possible. What is being sought for is a situation where there is a natural way of getting the feeling, the gut feeling, of the situation.

A good inspection does not necessarily involve pointers and lectures but more discussions on ongoing problems and how to solve them.

Experience from shipboard work probably affects the inspector’s role, as seen in the quote above, to become more of an educator than a red-tapist. Shipping in general, but especially Swedish shipping, is a small world and there are rather short distances between inspectors and crews in ways of hierarchy and profession.

During the data collection, the Swedish Transport Agency started national seminars for inspectors. The seminars can be seen as a response to the demand on inspectors from Paris MoU and EMSA to keep your authorization as a PSC inspector. The need for seminars and courses has been especially highlighted in connection to new demands on PSC, such as the newly implemented Maritime
Labour Convention (MLC). There is a feeling of a paradigm shift for PSC inspectors in order to take into account all of the demands from MLC.

MLC is another thing to look at, not the same we are used to. Technical inspections are quite simple, crap maintenance is straightforward and easy to detect, an emergency fire pump not starting for instance, is a direct detention. But how do you detect that a Filipino crew do not have access to free health care or an employment agency that takes per cent on their wages? It is a completely different thing to handle.

MLC – with its focus on labour conditions, labour rights, medical care, food and catering and living facilities – puts new requirements on the inspector. A change of how to conduct business is needed and therefore the national courses and seminars on MLC are much sought after by the inspectors.

When closing the interviews, there emerged a discussion on the need of PSC and if PSC was vital for the maritime safety or rather somewhat redundant. The discussion also involved how to develop PSC inspections to become more focused and successful in the pursuit of better maritime safety. The general remark on the first question was that the effect of PSC on maritime safety had been substantial. Seen over time, the quality of vessels trading in Swedish waters nowadays is better than 20 years ago, according to all interviewees. This depends much on the type of vessel and which flag it flew, as a general disclaimer.

Yes and no. On tankers, I think the cargo owners and their vetting inspections have had the most influence on maritime safety. They are the ones that have been pulling the strings. But if you focus on general cargo and bulk vessels I would think that without PSC there would have been far worse vessels trading our coast than there is right now.

At the same time, the general opinion was that the quality of vessels has increased and the perception of PSC is that it is more and more a strictly regulated inspection practice. The practice of very detailed instructions reduces the role of the inspector’s professional knowledge. It makes it fairly easy for crews and vessels to pinpoint what to expect from a PSC, which contradicts the purpose. The discussion on how to develop PSC to enhance maritime safety often transformed into concerning inspections in general and also specifically inspections in Sweden. Much thought was put into the need to be effective in the inspection regime, to be able to single out the vessels with the greatest need to be inspected already at the office and to use the professional knowledge of the inspector to be creative in defining areas to control.
Greatest effect for the least effort – that is not how I would summarize the understood goal of the Swedish Transport Agency right now. We should be working with risk-based inspections, but we are not. We should skip writing long lists of certificates on vessels we already know are ok and instead focus more on torpedoing those we suspect have a problem.

The last sentence of that quote describes the problem with a shifting focus of inspections. There is a need to put effort into investigating what type of vessels there is a need to inspect and also what to inspect.

We do hull inspections, we look at propeller shafts and other technical things. Some of the things we look at, if we are not looking at it and it breaks down, what would happen? Well, there may be an engine stop, nothing more. Maybe we should focus on other things, make sharper inspections on the not so technical parts, maybe then we would be a bit more to the point.

It signals an understanding and preparedness of a need for something else, a chance to develop the inspection strategies into something different; more direct inspections on already known problems. To use knowledge and professional expertise to single out vessels and even further highlighting specific areas to control.
Concluding discussion

In the discussion we move away from the distinction in presentation between the social and technical context. Instead, we put the main focus on the most important aspects found during the interviews. The results confront me with both positive examples of Port state control activities as well as problems and possible weaknesses in the organized control of maritime safety. On the positive side, we have seen signs of a strong collegiality between inspectors, that they withhold a strong integrity and feel that their knowledge and expertise are vital for the success. On the negative side, we have seen that Port state control is not viewed as a harmonized system by the inspectors. The inspectors perceive the existence of rather large discrepancies in the way PSC is conducted and how regulations are interpreted across Europe. Further, examples of some large loopholes where substandard vessels might slip through have been given, and questions have been raised on the prioritizing system.

Moreover, the results picture the vague contours of an ongoing and rather worrying process. A process initiated with the signal intent of downshifting importance of Maritime Safety and inspection. And what we have seen here is that the work of qualified inspectors tends to become increasingly routinized, which in turn may pave a path towards some level of depersonalization. The theoretical review gave reason to assume that the process of depersonalization takes a more or less determined path from routinization towards loss of group identity, professional identity and what, in its ultimate form, can be described as alienation from task and role.

Although some results point in this direction, there is no obvious evidence that this one-way path of depersonalization has entered yet when it comes to inspectors. However, the sheer possibility that this could happen is reason enough to take the signals seriously and use them as a frame for this discussion. Since PSC is held as a second line of defence against substandard vessels, the consequences of a deteriorated PSC would indeed be highly unwanted.

---

53 The first line of defense against substandard vessels is flag state controls, they can in turn be delegated to classification societies and as such, both flag state and classification societies are seen as the first line of defense and subsequently, PSC as the second line of defense.
Qualified professionals or routinized bureaucrats?

One important question is to what extent the inspectors can use their professional competence in PSC? Prior to employment as Port state control officers (PSCO) the inspectors are highly qualified professionals, firstly through extensive employment requirements, secondly through a dedicated training program aimed at maintaining a high standard of inspectors and inspections both on PSC and flag state inspections. In those previous employment positions they use their professional knowledge and expertise to make qualified judgements. Their experience is both on technical aspects such as load line, safety equipment and construction and as less technical areas such as ISM, ISPS and documents.

However, the results show that the inspectors experience that the PSC inspections often become more of routine and checklist inspections rather than highly qualified inspections using professional assessment on specific areas. We have seen that during the employment at the governmental organization, the inspectors are subject to influences and constraints in their work. Constraints come from two different directions: they may be internal coming from the own organization, or external coming from surrounding organizations. Internal constraints are often economical, juridical and time-related in nature.

One source of external constraints can be Paris MoU to the extent that it puts the inspector under pressure to deliver inspections in a routinized and predefined form. Influences may on the other hand come from surrounding professions and executives as well as from the current debate on inspections and from shipping companies or IMO. Influences can in this context be how to interpret regulations, what to focus on during inspections, how to write deficiencies and detention notes or time available for each inspection. Both constraints and influences can easily be perceived as affecting the status of the inspector’s profession.

We have seen that an ordinary PSC can be quite formalized, with a strict procedure guiding the inspectors and a strict time schedule, not allowing too much additional initiative outside the predefined procedure. When the vessel to be inspected has been chosen, or rather prioritized by the database, the inspector prepares the inspection and then travels to the vessel. At first, the inspection is a routine, with emphasis on documents and protocols before conducting a quick visual check of the vessel. This is a procedure that tends to lack the need for professional judgement and knowledge. The fact that everything is supposed to

54 This means filling in routine lists of the documents on board the vessel, with around 80 different documents to handle. Then, a quick tour check-up of the vessel is done and the inspection is concluded if no clear grounds are found. If clear grounds are found, a more detailed inspection is begun, which might incorporate tests of the vessel’s systems and its crew, according to the inspector’s judgement. Altogether, this description signals that the inspector has to follow a very detailed protocol, both from the Paris MoU organization and from the national organization.
be standardized or rather, as Paris MoU calls it, harmonized, points towards a sense of underused expertise amongst inspectors. It could be argued whether an expert is an expert even if his or her expertise is not used? Even though the expertise is not sought for during regular – the vast majority of – inspections, there is still the need for preparedness for the unexpected.

In this study, the inspectors have described a tendency that executives, both at the national governmental organization and centrally at Paris MoU, define and curtail the inspection process with narrow principles regulating the behaviour of the inspectors. This structuring process tends to break up the work into discrete, controllable and manageable units, a process that limits autonomy and decision-making. The incentives for the inspectors to make professional judgements is confined to the routine formula for the inspection, where routine tasks and decision in the form of ticking a box is encouraged instead of making professional decisions based on the inspector’s knowledge and expertise. Even the deficiency statistics might suggest that PSC has developed into a routine inspection. The most common deficiency is a note on paperwork or general sloppiness, and not on more complicated inspection areas.

On the whole, the claim for the inspection process to be routinized, documented, and clearly reported in a standardized template, easily accessed and therefore easy to control, signals a higher degree of bureaucracy, most likely as a result of New Public Management (NPM) ideas. Linked to routinization is also the practice of inspecting vessels already well inspected by other organizations or inspecting vessels with good records and a habit of being inspected. According to inspectors, the prioritizing scheme does not take into account other inspections or the inspectors’ professional knowledge and expertise in what vessels to inspect, how to inspect and what to focus on during inspections. This is a tendency that justifies a question of the extent to which the inspectors actually inspect the right vessels.

A route towards deprofessionalization?

The results of this study have revealed the inspection as a tightly managed and controlled task. The inspections are conducted with detailed instructions – checklists on how to inspect, detailed instructions on codes of conduct during inspections and with a limited freedom of action for the inspector. As pointed out in the theoretical discussion, there are six characteristics of professionalism: Master of specialised theory; autonomy and control; motivation focusing on

55 This development of PSC and routines can be seen in the lights of NPM, where managers need to be able to control the process, the work content and the effectiveness of the inspector’s work. All this points at an increased wish to manage the inspector’s professional work from the organizational side.
intrinsic rewards; commitment to the profession; sense of community and feelings of collegiality; and self-monitoring (Roberts & Donahue, 2000).

The work as inspector is, as already mentioned, dedicated and with a high-level expertise shaped by the individual professional background. Thus, inspectors they already possess a great expertise as they enter the employment and with the training their experience and knowledge evolves into an extended expertise. However, when meeting the governmental organization they tend to perceive themselves as controlled and constrained by both managers and bureaucratic work methods. The specialized expertise becomes questioned in a very direct manner concerning results in their work as well as in the planning of their work.

Regarding autonomy and control, we have seen that the view is that managers tend to control the inspectors’ work and leave lesser decisions to the inspectors themselves. The problem seems to lie between the organization’s need to allocate resources to the areas in need of most attention but also to assure the quality of the work. Both might be viewed as control functions and constraints to the autonomy of the professional individual. This can be seen as a conflict of interest rather than a conflict of values, since there is a general understanding among the inspectors concerning the organizational need to supervise activities. The perceived problem is where the line should be drawn.

The situation appears to occasionally become a tug of war between a management trying to organize control in an NPM-fashioned way and the inspectors trying to find creative ways to curtail or work around the control functions. The way detention and inspection practices are conducted in the Swedish organization, and their way of bypassing the organizational routines signals a low trust on the inspector’s part towards the management and the organization. On the other hand, the trust from managers towards the inspectors might also be deemed as low since there obviously is a perceived need for the Swedish organization to incorporate controlling functions to lower the autonomy of the inspectors.

Commitment to the profession, sense of community and feelings of collegiality with other professionals in the same professional group were topics discussed during the interviews, with different answers depending on the context. A sense of community was present when discussing colleagues in Sweden, but also a suspiciousness concerning inspectors from other nations. The common ethical standard can be seen as developed internally between the inspectors in Sweden, since there are elements of a strong informally developed collaboration between inspectors that seek support and backing form colleagues.

In the interviews, we found that it was a well-established routine to seek support and advice from colleagues close to oneself instead of from managers and others further up in the organization. This might be due to the suspiciousness from inspectors towards their higher managers on both their knowledge and ability to support the inspector’s opinion and a general feeling
of lack of support. An interpretation might be that this uncertainty about the support from managers and other professions in the organization forms a stronger sense of community and feeling of collegiality amongst the inspectors.

While the mistrust of inspectors outside Sweden was more related to the different focus and interpretation of rules and regulations. In this case it was especially the focus on seaworthiness that the Swedish inspectors meant was the greatest difference. This focus on seaworthiness of the vessel can be seen as inherent from the Swedish flag state inspection and a strong concern for the crews, resulting in a shift of focus towards specific tasks of seaworthiness, such as inspecting the load line, lifesaving equipment and fire safety, rather than checking for instance documentation and formalities.

It has been described in the results that personal conduct and self-monitoring during inspections are vital for the inspector. The inspector needs to meet the crew and Master the right way in order to gain control of the situation and outcome of the inspection. It is a case of mastering the social touch and competence required to carry out a well-managed inspection. This forms a dualism, where the inspectors both need to maintain a distancing professionalism but at the same time a feel for the situation. There is a need to be close to the inspected part to get the required answers to conclude the inspection. This was a situation described as a problem, since the inspector did not know in advance what to expect when walking up the gangway to the vessel. It was described as a matter of quickly finding the right approach, to get the upper hand and manage the situation.

Together with the dualism in the above paragraph the need for a strategy allowing the inspector to get time to consult the regulations or colleagues is also of importance. In an inspection situation where everyone is practically looking over their shoulders, the need for calm, winning time and the upper hand is vital for the ability to conduct a proper inspection, both in terms of utilizing the right regulation and maintaining respect for the counterpart, the vessel’s crew. In these cases a need to be two inspectors was shown to be an important aspect, but also the possibility of a change in inspection practice, allowing the inspectors to bring home inspection data for later evaluation. In respect of the latter, without having to supply the crew with a finished inspection result directly, both inspectors and crew would be spared some of the pressure.

This change of inspection practice might also relieve the pressure on the inspectors relating to the bonus system invoked by some shipping managers, that the crew, or in some cases only the Master, either get a bonus for inspections without deficiencies or a fine for deficiencies found on their vessel. This bonus system sometimes used by ship managers is a situation that inspectors found

---

Having the upper hand in these situations should not be seen as a way to win at all costs, more a way of gaining control over the situation and manage the inspection instead of the inspection being managed by the crew or the inspector even being deceived by the crew.
most alarming, since the pressure on both inspector and crew might increase the tension between the parties.

We have seen examples of pressure from crews on the inspector delivering an inspection result without deficiencies and detentions during inspections with a stressing atmosphere. Linked to this is also the situation with the fine and bonus system that might affect the inspectors. These three factors, combined with the inspector’s power of detention and the knowledge of the effects of a detention, can mean that the inspectors are put under considerable pressure. Adjustments to the system in order to strengthen the inspectors’ role and position would counteract this development. But that would require quite a change in the practice of maritime inspections, specifically to remove the demand for delivering a direct result, except on alarming situations such as deficiencies on vital areas.

Inspectors are recruited from various fields of expertise. Thus they do not always share the same basic university education and therefore they may not share an identity to start with. This is a factor that complicates and impedes the development of a common group identity, since it is created and maintained by ethical codes and codes of conduct. Without the shared background there is a need for a stronger focus on ethical conduct and moral codes as well as a focus on the training of inspectors. The training gained at work together with internal seminars can be an approach to maintain, share and develop ethical codes and moral conduct.

The retraining from Master mariner, marine engineer or naval architect is done during the first period of employment and with older inspectors as mentors, guiding the newly employed toward the correct conduct. Even though these norms of moral conduct and ethical codes for an inspector are not written down on paper, they are clearly known and sought for to make sure they will use the most suitable approach at upcoming inspections. An approach for the upcoming inspection is probably a way of utilizing the codes of conduct in a practical way, simplifying the inspection for the inspector as well as for the inspected part.

As been discussed above, the routinization of the inspector’s work – with checklists and management control of inspection bookings that limit the inspector’s autonomy and decision-making – may have paved the path towards depersonalization of inspectors. The question remains whether there is reason to expect a tendency of loss of collegial and professional identification among the inspectors, leading to a feeling of ambivalence towards their role and work content? The shift of control, from the inspector to the management and the administrative staff, is a recently introduced procedure aiming to use the available resources in an economical way. This resulted in a shift in the organization from an autonomous to a heteronomous organization\(^57\), which restrained the inspector’s self-control, leaving them more or less powerless in

---

\(^{57}\) See p. 50 discussing autonomous to a heteronomous organizations.
the new organization. This shift might have been a successful move in order to gain management control and simultaneously remove the close ties between inspectors and their clients. A too close tie between the inspector and the inspected part could be interpreted as hindering professional judgements. This close tie might also hinder management to maintain control over the organizations resources and jeopardize the outcome of the inspections.

Along with the shift in the organization comes the shift in work content, from complicated cases to routine inspections on already well-inspected vessels. The emotional effects of routinization should not be confused with a general feeling of being expendable in their duties as inspectors. It is more a question of mixed feelings on work methods and work content that lies beyond their control. The mix between complicated and more straightforward tasks, as was the case before the shift, might be to prefer. Such a mix has the potential to keep the inspectors’ competence at a high level—a preferable asset even in more routinized inspections. If routine inspections become too dominant, a serious sense of meaninglessness may emerge among the inspectors, not because they view their task as unimportant, more because the task lacks intrinsic rewards due to changes in management of inspections.

With the feeling that PSC is unwisely managed comes a sense of uncertainty amongst the inspectors. This uncertainty might incorrectly be interpreted as not knowing what to expect or what is to be expected of them as professional inspectors. I would suggest that this is not the case. It is rather a question of an uncertainty originated from a situation of being too tightly controlled and managed and therefore having to little space for professional judgement. By comparing the control and management process with the need for self-control and freedom in their professional work, there is a strong sense of a process leading up to ambivalence. This ambivalence could lead to the inspectors feeling separate from either the organization or the work process.

The inspector might feel directed instead of guided in their work. As suggested in the results, the inspector might find this type of management an intrusion on his or her professional expertise, leading to disparity between management and organization on one side and the inspectors on the other. As already pointed out, the work tasks left to the inspectors during PSC are narrower and shallower in scope. This might suggest a work process more or less independent of the inspector’s professional contribution. Such a work process runs the risk of omitting the individual professional, for the inspectors, a feeling of replacing him or her with a robot ticking boxes in a form.

One important question, however, is if it is possible that a process such as PSC can both be harmonized in the Paris MoU area and simultaneously leave sufficient depth and scope for decisions at the site of the inspection? Linked to this concluding question is the ambiguous need for both freedom and autonomy on the one hand, and backup and security on the other, from a well-balanced organization and management lending support when needed. These two needs might be seen as contradicting each other. An organization and management,
lending support when needed, might also need some sort of control over activities in order to know how and what support that might be needed. There is not a clear boundary between autonomy and to be managed and controlled, rather there is a gradual shift between them. To find the optimum balance there is a need for continuous discussion and compromise between management and organization on the one hand and the professionals on the other. A strong trust between both parties is essential.

A high control and high autonomy can at a first glance be seen as an unattainable notion. With management in an aspirant way, they can retain control whilst at the same time inducing professionals to be creative, engaged, focused and motivated. The professionals are both expected and able to have a high level of self-management to drive both their own and the organization’s performance. Unlike a high control and low autonomy position where control is direct, here the control is indirect, exerted via a strong culture, ethical codes, moral conduct and guidelines that do not engender the direct style of management. Critical oversight and monitoring are exercised by a management that allows for effective risk management, at the same time achieving coordination across the organization. If the right balance is reached, professionals are well placed to increase their personal performance in a sustainable way, at the same time allowing the organization to achieve its objectives.

Conclusions

The aim of this study has been to investigate the perceived work situation for the Swedish PSC inspectors from an inspector’s point of view. This incorporates the inspector’s perception of the professional challenges, the status and the perceived identity of the profession. It also entails the inspectors’ perceived quality of the Paris MoU inspection system and the quality of the Swedish inspection organization.

The perceived work situation for the inspectors is somewhat dual. They know that their expertise and integrity is vital for the success of their work. At the same time the work has become routinized rather than fully allowing their qualified professional assessments at work. Indeed, inspectors experience situations where they feel respected and that their work is important at the inspection site, but in other situations, like back at the office, they can feel like they are seen as being at the bottom of the hierarchy. Concerning the question of autonomy and control there is ambivalence. There is a need of support and backup from the organization, which can come in conflict with the need for self-sufficiency and freedom to make decisions that affect their work. On the positive side, there are elements that tend to improve the inspectors’ status and
identity, such as the national seminars as well as the unorganized collegial backup.

It has been shown that although PSC is a quite formalized activity with a strict procedure guiding the inspector, the Swedish inspectors experience substantial discrepancies in the way a PSC is conducted and how regulations are interpreted across Europe. In some respects, PSC is viewed as unwisely managed. There are questions raised on the prioritizing system and the extent to which the appropriate vessels are inspected. The perceived quality of the Swedish inspection organization is that it incorporates a high degree of bureaucracy that limits the autonomy and decision-making of the inspectors.

The whole procedure in Sweden is fragmented because of a low trust between inspectors and managers. Also, the view is that the Swedish organization lacks organized backup facilities. Until recently, they lacked seminars aimed at developing the inspection methods. It has also been noted that there is a risk of reduction in inspection quality when demanding work tasks become scarce due to the shift in flag registration, which leads to the inspectors’ expertise being less used. On the whole, the views of the Swedish inspectors sum up to a considerable complexity and ambivalence in ship safety inspections.

Recommendations

During recent years, IMO and other maritime actors has pointed increasingly towards the need for actions within the human element area (IMO, 2015; 2005; Anderson, 2005, pp. 204–209; Anderson, 1998). The reason for this is fairly obvious; continuously equivalent levels of accidents at sea over the years. This is despite all technical solutions that has up until recently been the key solution for all problems in the maritime industry. Even though shipbuilding and advanced on board technology becomes increasingly sophisticated, it is still human being’s that designs the vessels and the on board technology, it is human being’s that manage and mans the worlds merchant fleet, and it is human beings who establish the regulations for maritime safety, how it should be applied and how to ensure its compliance.

Based on this notion of need for actions ensuring a higher degree of maritime safety a few recommendations can be made out of the data collected and analysed in this thesis. I have intentionally left out to point towards who, person or organization, which would be best suitable to perform the purposed action. I have also intentionally left out how it should be performed since I do believe it to be up to each organization to decide how to launch such a work or process. The recommendations for the maritime industry can be summarized in four points focused on maritime inspections.
(i) Enhance the conformity of PSC both nationally and internationally. This can be organized in two ways: Firstly in creating recurring seminars where complex inspection cases are discussed in order to develop the skills of inspectors in managing the complex social settings during inspections. Secondly in performing a detailed analysis of inspection results to examine differences between the inspector areas and individual inspectors. Aimed to be used in seminars to discuss different inspections practice and how to harmonize them.

(ii) Investigate the delegation of inspections and its impact on the maritime safety. Is the delegation of inspection activities something that enhances the maritime safety or should it merely be seen as a way of saving money for the maritime industry?

(iii) Create natural meeting places between different professionals in the maritime industry, in order to increase understanding of each other’s knowledge, skills, capabilities and their added value. Both internal in the Transport Agency and external with other actors in the maritime industry.

(iv) Improve the work environment for the inspectors by enhancing the support functions directed towards them; ensure the availability of inspectors to be two inspectors in as many cases as possible, and strengthening as well as visualizing the support available to the inspectors from the organization.

**Future research**

The purpose of this study was to present and analyse the inspector’s point of view. This attempt will of course leave a lot of questions unanswered concerning the entire system of Port state controls. Future research may look into other parts of the Swedish inspection organization, focusing on managers and other representatives at the Transport Agency, as well as moving further up in the hierarchy at the Transport Agency and other relevant parts of the Swedish bureaucracy moving towards responsible ministries.

Another path for future research would be to widen the research outside Sweden, collecting data from inspectors from different nations in the Paris MoU area. Such an attempt could include comparative studies concerning similarities and differences at different levels of inspecting organizations. Future studies could also focus on the organizations at the Paris MoU regime and EMSA asking questions concerning policies and regulation and its consequences down to inspections and safety at sea.
Literature


International Maritime Organization, (IMO). (2005), *Assessment of the impact and effectiveness of implementation of the ISM Code, MSC 81/17/1*. London: IMO


Fredrik Hjorth  Literature


Appendix 1: Interview guide

Questions in the interview guide have not been asked precisely as quoted in this guide. The guide was used as a checklist to ensure all relevant themes were covered during interviewing. The interviews were more in the form of a conversation where questions and supplementary questions were used to guide the conversation more than making them rule the conversation.

This guide were redeveloped during the course of the study. After the interviews in 2013 and the subsequently analysis of them the interview guide was changed. This change were commenced to make the guide more precise in its notion to fulfil the themes in the study for the second part of the interview round in 2014.

General information
Professional background, both at Transport Agency as prior employments. Depending on your background, do you experience your professional identity as an inspector or from your prior work or background?
Give examples of tasks you have as an inspector?
   What task do you consider to be most important in your work?
   Do you perceive that your work depends on your skills, trade-offs in the role as inspector, or more to the checklist controller?
Do you have an example of a situation where an inspection really put your professional skills to the test?
How do you perceive your freedom of work, regarding discussions of deficiencies or detentions from other professions?
How do you perceive authority of other nations’ ships in Sweden?
Is it possible to override the PSC system for a vessel or a shipping company?
What powers do you have as an inspector? Are they adequate?
   Has your powers changed during your years as an inspector?
   Do you feel that you have sufficient authority to carry out your work?
Prior to inspections
What kind of preparations do you make before a PSC?
Dependent on flag, history, time available etc.
Travel arrangements for a PSC, time, preparations, planning, scheduling.

During inspections
How do you use strategies when you get on board, towards the crew?
What strategies do you use to get to a good inspection procedure?
Do you feel that your counterpart has strategies to meet you in various ways?
Does it change depending on the flag, type of vessel?
How do you perceive the crew’s expectations of you as an inspector in your role as Inspector?
Does it affect your own work and behaviour of the crew’s response?
How do you act in the inspection situation at detected deficiencies?
How do you manage the counterparty’s comments, the influence of others?
How is the procedure when you discover a deficiency?
How is the procedure when you notice a deficiency severe to warrant a detention?
Who do you have to contact, do someone have to acknowledged and confirm your decision?
Has this procedure changed over your time at the agency?
Has your opinion about a detention been challenged sometime?
Have you ever hesitated to note a detention?
Have you ever used the possibility to use a deficiency to be rectified before departure?

Discussion about differences in inspection, with input from the two inspections of a ship with diametrical results. See extracts from inspections Freyfaxi.

Regarding specific regulations or inspection guidance’s.
What does it mean for you to take into account the human element covered by the ILO, the ISM and STCW?
What does Manning adequate found in the MLC mean?
How do you inspect the fulfilment of the Collision Regulations, found in Section 2.3.6 in the guidance for inspectors?

Do you feel that there are any clashes between rules or regulations?
For you, for the crews or during inspections or the application of the regulations.
Are there differences between flag states how the regulations are interpreted? Which?
Has it changed over your time conducting PSC?
How does it affect your work situation?

Regulations are provided from several different instances, IMO, EU, TS, etc. Does perceive a problem when they are interpreted? What do you use, for example when inspecting regarding ISM, do you use the regulations from IMO or the EU / TS?

After inspections
How much work time do you have to perform after a PSC, depending on the outcome, deficiency or detention?
Do you feel that there is a difference in inspection standards between different inspectors in Sweden?

What kind of arrangements have you participated in that serves to increase the shared view on how to conduct an inspection nationally?
Do you feel that there is a difference in inspection standards between different countries carrying out PSC inspections?

What kind of arrangements have you participated in that serves to increase the shared view on inspection standards internationally?

What forums do you have to discuss how to perform your work?

How do you leave feedback on your experience of how the regulations work?
How do you leave feedback on your perceptions of how the organization works within the agency?

Perceptions on work as an inspector at the agency
How do you perceive the situation as an inspector at the agency?
How can you influence your work situation?
Do you experience stress in your daily work regarding PSC and inspections?

In which parts?

In what way are your work controlled, by who, how do you handle it and how do you create your freedom of action?

How do you reason about your work situation, regarding time aspect versus task?

How do you allocate working time between the different parts in your work, flag state inspections, PSC, preparations, seminars, training etc. and other work tasks?

How do you reason regarding work time based on the work tasks you are obliged to do, do you need to prioritize, if so how, what work tasks do you prioritize down and who decides on it?

Do you often think of work related issues during your free time?
Appendix 2: Validating interview guide

Questions in the validating interview guide have not been asked precisely as quoted in this guide. The guide were used as a checklist to ensure all relevant themes were covered during interviewing. Interviews were more in form of a conversation where questions and supplementary questions were used to guide the conversation more than making them rule the conversation.

Work experience as an inspector and professional background?
How many PSC and other inspections do you perform every year?
   - Divide your time between your work tasks over the year.
   - Can you plan your own work, appointments for inspection, etc.?
   - Who plans your work if you do not do it yourself?
What is the single most important competence of an inspector?
   - Other important competencies?
Do you think that you have a freedom to use your skills, or is your work guided by procedures and checklists?
   - Do you have more or fewer procedures and checklists now than before?
   - How have the procedures and checklist evolved during your time as PSCO?
How do you prepare for a PSC?
   - Technically – rules, special requirements etc.
   - Socially – meeting with crew
Do you have a backup plan in case of problems?
   - Is it different depending on if it is a technical (interpretation of the regulation, technical solutions) or a social (the crew’s situation, behaviour) problems.
Does PSC in Sweden inspect the right ship?
   - Fewer vessels get deficiencies and fewer detentions over time.
   - How can the PSC develop smarter inspection practice, to better detect which vessels to inspect?
Have you experienced any differences on the PSC in Sweden or internationally?
Hesitated to deliver a detention or a deficiency?
What was the reason?
Decided to issue a deficiency to be rectified before departure instead of a detention?
In what way do you experience opportunities for development as an inspector?
Different areas – inspection, technical expertise, regulatory, socially
Do you experience a PSC as a challenge that develops your professional role as an inspector?
Appendix 3: Summary of licentiate thesis

Safety Culture in the Baltic Sea: A study of maritime safety, safety culture and working conditions on board vessels trading the Baltic Sea

Abstract
The main purpose of this thesis is to explore the safety culture on board vessels trading in the Baltic Sea. The common denominator for vessels trading in the Baltic Sea is frequent port visits, coastal voyages, voyages in dense trafficked areas and small crews. Earlier research shows that there may be a system fault in the shipping industry. Charles Perrow describes the maritime industry as an error inducing system. He means that the cause for that is the way shipping is carried out. In a safety culture values, attitudes, competence and behavioural patterns are four important factors that define the safety culture. The maritime safety management system, International Safety Management Code (ISM) aims towards a proactive and evolutionally safety culture in the shipping industry. The results show that shipping today lacks a foresight, *failure of foresight*, where the proactive way of work leads to incidents and accidents being anticipated.

This study has an ethnographic perspective, which aims to create a thick and substantial description of the culture that is being studied. Totally a number of eleven vessels participated in the study. The visits on board reach from a couple of hours up to a few days. Collected data has been analysed through a self-developed model in an ambition to try to explain the safety culture. The model focuses on how information, feedback, responsibility, co-operation, follow-up and development are being handled. The study reveals that there is a need to discuss and change the safety culture in the shipping industry, in large as on the single vessel. As well as a need for further studies of how the safety culture can
be improved and a need for education aimed towards system thinking, organizational theory and safety culture.

1 Introduction
Ship management is a complex business; many parameters combine to allow the operations to function satisfactorily, from maintenance of the vessel, equipment, organization on board and ashore to financial performance of the vessel. All this together forms a socio-technical system, which covers the whole spectra of shipping and maritime operations. It is therefore vital to use a socio-technical perspective to deal with both small and large areas and to explain the different activities and their mutually coupling.

Several different studies have attempted to shed a light on different perspectives and show problems that affect short sea shipping. According to the UK Marine Accident Investigation Branch (MAIB, 2004), a lack of proper lookout and tight working schedules is not unusual in short sea shipping and goes even further and implies that there is a systematic error in shipping. Furthermore the Swedish and Norwegian Maritime Administrations have revealed similar problems as the MAIB, fatigue and lack of a lookout can be a contributing factor in the majority of the accidents that occur in short sea shipping, that working hours at several occasions exceeds 90 hours per week and that they are not recorded according to the rules (Lindquist, 2003, 2005; Sjöfartsdirektoratet, 2004). Even the report Seafarers fatigue (SIRC, 2006) reveals that the records of working hours are not according to the truly worked hours and that the records are not completed according to the rules. Further a study in Sweden shows short sleep periods such as 6 hours for watchkeepers at sea on most ships in the study. Sleep that periods that lead to continuous lack of sleep, which ultimately can cause decreased alertness and fatigue, thereby worsening the maritime safety. (Lützhöft et al, 2007)

Vital parameters that define a safety culture are values, attitudes, skills and behaviour (Reason, 1997). Based on the problems mentioned above there is a need to examine the safety culture in the whole industry as well as on board the vessels in short sea shipping. This is since the culture on board affects how the individual crew member is acting as well as the room for manoeuvre for the individual. Culture on board is a shared culture that the crew members are involved in building, maintaining and also forced to relate to. It is built on old inhabited patterns that meets the new technology and new requirements such as the International Safety Management System (ISM) or newly implemented administrative obligations imposed by authorities, shipping companies and charterers. Several studies reveal shortcomings in watchkeeping, tight work hour schedules and work hour schedules not kept truthfully indicates a shortcoming in the state of values, attitudes, skills and behaviour patterns in the
short sea shipping. It is a sign of deficiencies in the safety culture that prevails on board and in shipping as a whole.

1.1 Research question

The ISM shall, according to the Code, seek to support and encourage the creation of a safety culture in shipping and further pointing out that the attitude, values and beliefs are three important aspects of promoting a good safety culture. According to the guidelines for ISM the certifying administration should measure the effectiveness of the safety management system on board the vessel and in the company (IMO, 2010, 2.1.14).

ISM thus points to the importance of a good safety culture and demonstrates that it is the effectiveness of the safety management system that should be measured. Therefore to examine the safety culture in shipping on multiple socio-technical levels is of vital interest. Is it possible to define a safety culture and if so, how is the safety culture within the vessel and in the short sea shipping in the Baltic Sea?

1.2 Objectives

The study’s main objective is to investigate safety in the Baltic Sea trade, the safety culture on board the individual ship and of the individual crew member affected by the surrounding factors such as the shipping company, segment and maritime safety throughout. How does such culture affect safety on board as well as the single crew member’s perspectives on risk and safety in their work on board? Even though the main focus is on the single vessel and the single crew member, the study also focuses on surrounding areas that affects the vessel and the crew. This is because the vessel and shipping should be viewed from a systems perspective, where the socio-technical system interacts to promote safe work.

2 Method

A study on board vessels with a focus on safety culture means that we are studying a part of a system. Shipping in general, as a global industry, could be viewed as a system in its entirety, where the system contains several components, subsystems, that relate to each other and also acts with and towards each other. The interaction and the relationship between people, systems and technology can be divided in mental, social and technical systems, (Moe, 1996). A further investigation of the system in a system theoretical perspective means we have to study how the subsystems interact with each other, how they take account of each other and where they adopt different roles in order to fulfil different functions. In a way we can see the system as a circle, where systems
assume a circular embossed relationship where concepts are woven into each other and become dependent of each other.

A system, such as the maritime, separates to the surrounding but not more than events in the surrounding affects the system. In this way it is difficult to see what is causing events in a system, the events outside or in the system. System and subsystems becomes self-regulating, autopoietic, in its form, in which the system and its subsystems create their own identity and their own relationship to the environment, (Luhmann, 1995; Moe, 1996). Studying this requires, first, that we can generate a holistic approach but even a grasp of parts. We need to use multiple tools to investigate the autopoietic system in its entirety. We must be able to both manage and analyse human actions and strategies and the organization’s actions against both to the individual and to other organizations in the system. Methodologically, we adapt, based on where in the system and subsystems we are in our investigation. The human in the system is a part that adapts, influences and orients itself based on a systemic context. To understand its behaviour, we must adopt an interpretive approach, in accordance with Mead’s view in *Mind, Self, and Society*, (Mead, 1972).

In the ethnographic study, based on the anthropological discipline and method, the researcher spends a long time in the environment they want to explore and creates an opportunity for in-depth and more detailed descriptions of the observed pattern. The whole purpose of the ethnographic method is to create a so thick and full description of the culture under study (Geertz, 1973). Traditionally there have been a number of studies (Gouldner, 1954; Powell et al, 1971), in which ethnography has been used as a method to describe an organizations culture and in addition there are studies (Weick & Sutcliffe, 2001), which also use an ethnographic method in control and identification of cultural elements that affect the safe and reliable operations.

In terms of literature on safety culture studies the use of questionnaires are the dominant method of choice. Since this studies aim is to capture an image of the safety culture and at the same time present the complex system in which this culture are placed the statistic method of questionnaires is rather obsolete. The ethnographic method gives a much fuller account of the culture of an organization than surveys can do (Abbott, 2004). The big question is the validity of the ethnographic description, accuracy of the description is judged by the credibility of that description to insiders who live in the culture and, at the same time, to outsiders who are trying to understand it (Schein, 2004).

Ethnographic method is much more than just being there, on site at exact that moment. Even though access to the site for the study is central for the success of the data collection phase, access is not only physical access but more important is the access to the social subsidence on the site (Hammersley & Atkinson, 2005). To be able to take part of the individual experiences of their situation and how they experience the safety culture interviews and observations has been used. Interviews linked to observations in different contexts form separate pictures of the same phenomena. With this method a wide range of
material have been collected that on different forms describes the same context and event, which gives strength to the collected data.

The material collected consisted of scripts from interviews, observation and field notes during the visit to the eleven vessels. It was grouped together and read at first for each vessel, then for each profession and last grouped in themes according to the research themes. The interpretations are divided into three degrees, close to the hermeneutical spiral, where each reinterpretation turns the interpretation an extra turn and increases the complexity of interpretations (Fangen, 2005).

2.1 Field studies

The data collection field work was done during the summer and fall of 2007. It was done in two main categories, visit on board and interviews with shore based personnel. A total of 31 people were interviewed in the study, see Table 2.1.

Table 2.1: Interviews in the study

<table>
<thead>
<tr>
<th>On board interviews</th>
<th>Shore based interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master</td>
<td>9</td>
</tr>
<tr>
<td>Mate</td>
<td>6</td>
</tr>
<tr>
<td>Seafarer/Chef</td>
<td>2</td>
</tr>
<tr>
<td>Seafarer/Engine</td>
<td>2</td>
</tr>
<tr>
<td>Seafarer/Deck</td>
<td>2</td>
</tr>
<tr>
<td>Chief Engineer</td>
<td>1</td>
</tr>
</tbody>
</table>

Totally for the study 11 vessels did participate. Common for all vessels was that they sailed with two nautical officers on board sharing the watchkeeping responsibility. In addition, manning varied depending on flag and trade. Normal manning was three seafarers in addition to the watchkeepers. The vessels were engaged in coastal trade with short voyages with up to two days between port visits. Only one of the vessels did have dedicated engine personnel on board. Seafarers doubled up in responsibility for deck, catering or engine duties. Nationality of crews shifted after the flag on the ships visited. They consisted of people with Swedish, Polish, Russian, Latvian, German, Finnish, Ukrainian, Filipino and Portuguese nationality. A clear picture of how international even coastal shipping in the Baltic Sea is.

3 Safety culture, a model for analysis

It is a multifaceted work to compose a possible method to evaluate and analyse the safety culture since it is based on a variety of factors that influence the shipping and the work on board. The safety culture provides a dual role, to prevent accidents with the ship and accidents with the single crew member and
therefore the impact on board are at different levels. Rasmussen (1997) suggests that the entire socio-technical system is involved in risk management, thereby affecting the safety culture.

Depending on where in the system, what level, we study it requires different methods and disciplines to succeed. Rasmussen’s levels of the socio-technical system are:

(i) authorities,
(ii) rulemaking organizations,
(iii) the company,
(iv) leadership,
(v) staff and
(vi) the workplace with its technical equipment (Rasmussen, 1997).

All of these components cooperates and sometimes counteracts and thus affect the culture that arises and is created at a workplace or in the wider sphere of its activities. Translated to the shipping and the present study, we can distinguish three categories that affect the safety culture of the individual seafarer:

(i) the system of shipping in general,
(ii) the segment, and
(iii) the ship, see figure 3.1.

Figure 3.1: Levels for analysis (Hjorth, 2012)
Based on these three categories and Rasmussen’s levels different parts of the system affects in different ways. It is first and foremost (i) the ship and its crew, the safety culture that is accepted on board and where the crew together, collectively agree on what is accepted and not accepted. This is done based on several aspects and from different angles, depending on the individuals in the crew and the ship’s physical characteristics. An older experienced crew member is likely to affect more than a young inexperienced since the experience and knowledge of the tacit communication are important. The safety culture on board is influenced not only by the crew and their shared agreements but also by the surrounding systems, which are in turn influenced by other surrounding systems.

The ship’s crew is also affected by (ii) the segment the vessel operates within. Is it a vessel in short sea shipping or in ocean shipping, is it a dry cargo or a tanker etc. These conditions affect how the work is carried out on board. Typical segment-specific characteristics are crew size, type of ship, the type of trade and type of cargo. Clearly, the crew sizes are a strong influence on safety culture, but also the differences in ship management’s influence on the crew and ship. It can be the difference between a large shipping company with a large shore organization and a small shipping company in which the shore organization is minimal or sometimes non-existent.

As a holistic perspective is the whole (iii) shipping in the background. The impact may be from the special conditions which shipping operates within, regardless of subsector, flags, ship or trade. There is an international regulatory framework, the ship is outside the direct physical reachability when traveling between ports, the ship is constantly moving in order to carry out its mission, the crews come and go and we have a tradition inherited by the particular conditions with floating workplaces and homes wide apart. In addition to these three levels are the whole global community and influence from there as well but it is so differentiated and diverse that it is difficult to substantiate on the basis of the individual ship.

With the themes finalized as shown in Figure 3.1, System – Segment – Ships we need a model, an analytical model to analyse the themes. A possible model for further work will be to analyse the themes based on Reason’s four elements vital for a safety culture: (i) reporting culture, (ii) just culture, (iii) flexible culture and (iv) learning culture and Westrum’s expanded classification affecting the safety culture, (Reason, 1997; Westrum, 1992).

Since the study is based on the crew’s experience of the phenomenon of safety culture the focus will be how the crew is affected and adapts depending on the outsider’s influence on the work on board. Reasons four elements translated into Westrum extended model provides the analytical factors. To create a reporting culture it needs information, feedback and that liability issues are resolved. A just culture requires clarity regarding responsibility and cooperation, for the culture to be seen as flexible it needs feedback and
collaboration and finally for to culture to be a learning culture it needs feedback, follow-up and development (Reason, 1997; Dekker, 2007).

Further the discussion will be based on the classes Westrum and Reason worked out. In the model there are six factors that forms the base for the analysis in the result, how information is shared, feedback is passed on, how responsibility is shared, co-operation is dealt with, the process involving follow-up and how development is handled.

Westrum and Reason uses five different safety cultures, or steps on a safety culture ladder. The five different safety cultures, pathological, reactive, bureaucratic, proactive and generative behave in different ways. The pathological culture does not care about safety, so long as we do not get caught. This means that everything is done with a focus on everything to be hidden away and all new is potentially dangerous. In the reactive safety culture safety is important, and as soon as an accident occurs, very much is done. A work that seeks to protect the organization from environmental influences is started and the person at fault is hung out to demonstrate decisiveness, and new rules are developed to prevent a similar accident to happen again. We use our experience to determine our future behaviour.

At the next level of culture, the bureaucratic, security monitoring system has been developed to handle all hazards postulated to occur. This means that our own horizon is the limit of what we can anticipate. The system is important and all information and events that fit into the system, as has been predicted to take place, can be treated. Events and information that does not fit into the system creates major problems and could be neglected.

Table 3.1: Model for analysis based on Westrum (1992) and Reason (1997) (Hjorth, 2012)

<table>
<thead>
<tr>
<th>Analysis factors</th>
<th>Pathologic</th>
<th>Reactive</th>
<th>Bureaucratic</th>
<th>Proactive</th>
<th>Generative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>Information is hidden</td>
<td>Information is misunderstood</td>
<td>Information may be ignored</td>
<td>Information is shared</td>
<td>Information is actively sought</td>
</tr>
<tr>
<td>Feedback</td>
<td>Messengers are shot</td>
<td>Messengers are ignored</td>
<td>Messengers are tolerated</td>
<td>Messengers are controlled</td>
<td>Messengers are trained</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Responsibility are shirked</td>
<td>Responsibility is personal</td>
<td>Responsibility is compartmentalized</td>
<td>Responsibility is controlled</td>
<td>Responsibility are shared</td>
</tr>
<tr>
<td>Co-operations</td>
<td>Bridging is discouraged</td>
<td>Bridging is discouraged</td>
<td>Bridging is allowed but neglected</td>
<td>Bridging is natural</td>
<td>Bridging is rewarded</td>
</tr>
<tr>
<td>Follow-up</td>
<td>Failure is covered up</td>
<td>Failure is punished</td>
<td>Organization is just and merciful</td>
<td>Failure is investigated</td>
<td>Failure causes inquiry</td>
</tr>
<tr>
<td>Development</td>
<td>New ideas are actively crushed</td>
<td>New ideas are ignored</td>
<td>New ideas create problems</td>
<td>New ideas are shared</td>
<td>New ideas are welcomed</td>
</tr>
</tbody>
</table>
The penultimate cultural level, proactive, means that the safety management system is so constructed that it contains elements which try to capture potential safety problems before they occur. For example, by actively process the incident and deviation reports, and to share information. The last and highest safety cultural level, the generative, means that the entire organization is permeated by a safety think, which goes beyond just the safety management system. Vulnerabilities are searched actively in all operations in order to find them before they occur. All events are processed and investigated in order to obtain more reliable operations; safety permeates the entire organization and comes before anything else. Everything, except safety, is up for discussion aiming towards continuous improvement.

A clear distinction between the different cultural levels is that the confidence in the individual and the organization increases the further up in the cultural stair we proceed. In the lower levels, pathological, reactive and bureaucratic, the individual and the organization are monitored, controlled and have little confidence. Threats of retaliation, and different systems to control behaviour and to ensure that individual do what is expected of them are used. At the highest level the individual and the organization is relied upon with the confidence and trust that they have a motivation to work in a mature and trustworthy way with the safety system.

4 Results

4.1 Safety culture within the system of shipping

Shipping as a system places itself on the border between the pathological and the bureaucratic state, i.e. the reactive stage. Most would surely oppose it, especially due to the spirit of the ISM. Which is also correct, in terms of ISM and its regulatory framework it fits better into the development stage. The problem with ISM is that it has only scratched the surface. When it actually comes down to a critical examination, the ISM has probably not affected the shipping industry as much as was intended, yet. ISM’s SMS manuals tend to become shelf warmers on the bookshelf rather than a natural part of the daily work, which makes it more impressive on paper than vital part of safe work patterns as it is meant to be.

The reactive categories are denoted by that information is misunderstood, messengers ignored, accountability is personal, bridging only when required, mistakes are punished and new ideas are ignored. The problems facing the system are:

(i) lack of implementation of regulations,
(ii) lack of clarity in how incidents are handled by the authorities in the country,
Globalized shipping where actors from different parts of the world come together around the same ship and the same cargo means increased difficulty in handling information. It is based on the various way of handling information depending on differences in organizational culture and information flow in different companies from around the world. This is regardless of who is better or worse at handling information. Just that multiple players are involved, from different nations, cultures, organizations and organizational cultures, implies that the dissemination of information becomes more difficult. Information stops and can at best only be ignored or maybe simply misunderstood.

Furthermore, the interchangeability of flags and seafarers might halt the vital communication and information flow. The possibility of substitution creates a lack of continuity, an uncertainty on the status and an unhealthy competition. Especially the risk of losing their job or losing ships from the flag can create a fear of making demands and thereby only compliance with regulations. The special working condition found in shipping, the ships physical isolation from the outside world for long periods, means that the ability to control and verify the work on board difficult. Although the specific situation regarding work and leisure on board creates special conditions, the difficult of distinguishing work and spare time on board may create a fatigue, which can hinder the will and ability to maintain a high level of information flow, feedback and collaboration.

The allocation of responsibility is a key element in the construction of a safety management system, in which each participant in the system clearly must know when and how mistakes and accidents are handled. According to Dekker (2007) there arises a dilemma for the individual, with the threat of prosecution hanging over them for mistakes and accidents that have occurred. A dilemma if the incident should be reported or not. Here is the problem, no one can predict how blame is shared or punished. Only that it sometimes happens and sometimes not. Mistakes are investigated but the responsibility is avoided, ignored, or worse, pinched on individuals.

Also the extensive regulatory flora in shipping is another example that there is a problem. Merely IMO has produced a large number of conventions, rules, procedures and guidelines. The large amount of rules, procedures, advice and guidance should generate safe shipping. However, most indicators show that this is not so. For example, the number of accidents over time remains at a similar level, there are years that are better or worse (Anderson, 2005). But over a longer period, there is no major change. Small variety between years depends probably more on shifts in the economy and not on the regulatory impact. It is also within the IMO structure as one of the major problems lie. IMO is working to build up a minimum acceptable standard for all, which means that they set the bar for the lowest permissible level. This means that a company or a flag that meets this minimum level meets an acceptable level. IMO is also, normally,
working after a consensus process in which the desire is that everyone should be in agreement before any decision is taken. Given that, this need not only be detrimental but can also be seen as an advantage. Since the agreements are supported by the whole maritime world instead of a few driven countries.

4.2 Safety culture within the segment

The problems facing the segment is:

(i) the low crew levels,
(ii) the lack of further training of the crew,
(iii) lack of support from state organization and
(iv) lack of inspection.

As with shipping in large the spirit of the ISM was to promote the proactive approach. Nevertheless there are apparent shortcomings that rather place the segment in a reactive stage. The impact the introduction of ISM has had has been very limited, more of another regulation which is not considered necessary and also awkward to use.

There are both positive and negative opinions on flag- or port- state inspections. There are examples of different inspectors focus on different things, they focus more on technology than on other issues, and that inspectors sometimes do not choose to note points made by crew members. The phenomenon indicates that the information available is ignored or hidden, which in turn suggests a reactive way, where the messengers are ignored and not included.

Based on crew levels and its consequences, we see a similar behaviour, information is hidden or ignored, no accountability, and the messengers ignored. Why this happens is probably because the issue on crew levels is too sensitive, it is a hot potato, which was shown in the discussions for the revision of the STCW in Manila. Among ship-owners and some flag states there were a massive resistance to create mandatory rules on criteria’s to determine the manning level a ship should have (IMO, 2010). This demonstrates a bureaucratic behaviour, where the information is ignored, or reactive, because the information to some extent is misunderstood.

The inherited traditions in the form of:

we can handle ourselves or we do not need help

mentality in an increasingly turned up the tempo may mean a high risk of accidents, where more should be done by fewer people in less time. This is due to crewing steadily decline and that lying in port is also steadily reduced (Kahveci, 2001; Hjorth, 2008). In an industry and a segment where the visibility to outsiders is minimal, since the access to the production platform, the vessel
is not possible for most of the running time; there is no control mechanism that can control work functions on board when the ship is at sea.

Furthermore, we also see how the feedback and follow-up are difficult as the reporting of deviations and incidents are not always in accordance with the ISM or SMS. One of the most important points of the ISM is the continuous improvement in the organization. This improvement should be documented in order to be verified by inspecting agencies and organizations. Other studies, (Jense, 2009), reveals a tactical action with reporting, something that also appears in the present study. A tactical action is either to report a moderate amount, that does not stand out as too many or too few, or to use reporting as a mean for extortion against higher organization. Feedback and follow-up is thereby lost, hidden and information and cooperation takes place only at the minimal requirements.

Collaboration is about to jointly create an atmosphere which enhances the activity, a bridge between organizations, ships, departments, and finally individuals that provides a natural workflow. Where, it is seen natural to share experiences and to develop a common strategy to work proactively. If we look at the report as part of the cooperation, it only works when conditions outside forces a reporting to take place. When that requirement is not found, there is no natural incident reporting, so far.

Collaboration involves both to learn from each other’s mistakes, but also to work towards the same objective. Inspections should be seen as part of this collaboration as they can detect flaws which the crew or the company itself do not see and reporting to be seen as something that shows the vitality of the system. Much of this, including the development of the ISM, comes from above, which is not always beneficial to the actual development on board a ship or in the segment. In a way, in terms of the study of the segment, one example is the ISM and SMS, which on board more or less is seen as a paper tiger, and thus not something to use when actual problems are to be solved, whether it be physical problems with work or more internal procedural matters.

The development in the segment is hampered since the general level of education is undersupplied. This should not be misinterpreted that the seafarers on board are bad sailors or omissions in their practical profession. On board there are highly competent professionals, but there is no general targeted training in new areas, such as organization and systems thinking to manage a complex system that ISM and SMS correctly or training in resource management and leadership. Having served as master on board for 20 to 30 years creates a vast array of experience to use in their daily professional lives. But it also means that there is a risk that new ideas, technology and work methods are not received in the right way. Expressions such as:

We do what we have always done, or; We have we always done it like that,
is frequent used on board. Development is about to welcome new ideas, not crushing them or at best, just ignore them.

4.3 Safety culture within the vessel

From the population being studied it is impossible to definitively declare a state of all vessels in the segment. This study on vessels can only be seen as an example. Nevertheless, the study shows that even vessels, as individuals, position itself in the reactive level. This is on the basis that:

(i) information available is ignored,
(ii) feedback tolerated but often ignored,
(iii) personal accountability,
(iv) cooperation only when required,
(v) mistakes punished and
(vi) new ideas are ignored.

On board the ship there is a significant lack of information. Especially notable is that information is hidden, misunderstood or ignored. Information is rarely shared or actively sought, except when demanded from the outside, for example, during inspections. The information is there but will not be passed on in the system or if it is passed on stops at the next level in the system. There are several examples on how the crew on board have tried to pass on information to shore based managers in the shipping companies regarding faulty equipment. It was clear how the information was ignored regarding the need for repair or exchange of the equipment at the shipping company. In these cases the crew used inspections as a mean to put pressure on the shipping company to overhaul the faulty equipment.

Furthermore, information about how the crew work on board is available to all parties, both the shipping office, inspection, whether it is inspection by authorities or classification societies and unions. That the crew constantly and continually violate the required rest periods is not new news. In this case feedback from the crew to the shipping companies and other shore based organizations is ignored and the information is hidden.

There is certain mistrust between crews and those they communicate with on the shore side, which is not advantageous to cooperation. The interviews maintained the important form of cooperation between crew and shore based personnel. The shortage occurs when information is not been taken seriously, misunderstood or ignored; this in turn inhibits cooperation when the crew needs support from its shore based colleagues at the most.

Watchkeeping on board includes a requirement for cooperation and accountability in the regulatory framework, but these are put aside on board. There is a tacit agreement not to make contact with the master at night, although there is a must according to the regulations. This suggests that responsibility is
avoided or neglected and that cooperation, bridging is resisted, not open officially but unofficially and in silence.

Risk is seen as a probability of physical injury caused by technical or other form of process, while the accident is what the result when the risk passes from being likely to actual (Beck, 1992). Constantly on board there are risks, incidents and accidents. However, there is no direct discussion of the hazards or risks, a bit like Beck is on,

Where everything turns into a hazard, somehow nothing is dangerous anymore (Beck, 1992).

Hazards are ever present but currently they are not discussed. There is an unnoticed externalization of accidents and incidents, it does not happen to me, it happens only those botched or the accident is so infantile and stupid that it becomes ridiculous. These arguments hinder the development on board to prevent accidents; or rather stops it from getting started. According to the interviewees, the personal clumsiness cannot be stopped by the ISM system and its SMS manuals, since the accident never depends on other factors than purely personal clumsiness.

This externalization is on both personal accidents and ship accidents. Ship accidents always depend on something else, ice, the pilot, breakdown of machinery or just bad luck. The interviews showed that the accident never depends on the individual capacity, organization or factors that are modifiable on board or in the shipping company. This suggests that mistakes are hidden, because they never come to the surface with the focus on external factors in accidents.

5 Conclusions

The study’s main purpose to investigate the safety culture began with a question: Is it possible to define a safety culture? From my study and its results, the answer is, yes it is possible to define a culture of safety. The Westrum (1992) and of Reason (1997) extended model served as a starting point for the development of analytical factors and my own model, i.e., the analysis of factors which later was used to analyse the safety culture. The results of the study and the links given to previous studies with a similar theme show the model’s usefulness well. The model has thus proved satisfactory. Now, let’s remember that the study was not designed to test the model or models, instead trying to define the safety culture in a given area, with the help of a model. To really test a model fully requires extensive testing in different specific environments to really define its function, a more abstract modelling to test the model’s function (Abbott, 2004). The purpose was not that, instead using a model to define and explain the safety culture, which the analysis model could handle.
Barry Turner & Nick Pidgeon (1997) argues in the book *Man-Made Disasters* that accidents take place by restricted perceptions and beliefs of the organization, which is associated with which information is interpreted, how it is interpreted, by whom and where in the organization. Turner & Pidgeon calls this the failure of foresight, meaning that we have no foresight or improper planning due to restrictions in our perception. This is linked to the safety culture, which in its proactive and developmental level is proactive and forward-looking. In order to prevent the problems that might arise. If we compare this with the navigation that is proactive, i.e. to be able to navigate safely, we need to prebuild a mental model of the environment, how it can be developed based on the data we have to process. But we also need to pre-ensure that future measures are working, that they are both planned properly and that in the current situation can be used. This is a natural part of the navigation of the ship. What needs to happen is that this naturalness found in navigation of the ship is transferred to other parts, then more specifically the safety culture and how we work with the safety management system daily.

Failure of foresight is in line with Weick’s & Sutcliffe’s concept *collective mindfulness* way to look at how we should work and provide further approach to the solution (Weick & Sutcliffe, 2001). With the collective mindfulness principles of performance and the ability of containment the work is focused. Both proactively to process the data we have to work with, but also to contain the initial events, so they do not develop into major events beyond our control. But to take preventive and containment action requires a change of focus and awareness level in our work.

Reason’s parameters for the safety culture to function are attitude, skills, knowledge and behaviours of those who work with and in the safety culture (Reason, 1997). Without a high level of these parameters the safety culture do not work in a proactive and developmental way. But this requires education and that everyone in the organization changes the focus. Instead of focusing on reacting to events in retrospect, we must learn to prevent incidents, which require a proactive individual, group and organization.

The results I have presented in this study clearly show that the safety culture is reactive. To lift it, primarily to a bureaucratic level and then be able to take it further, to the proactive and preferably all the way to development, requires that these parameters, attitude, skills, knowledge and behaviour are constantly evolving. It becomes clear from an examination of the ISM and its implementation, that there are many more factors that affect safety culture than only to introduce the ISM. There is a worn but useful expression, commitment from the top, as an ultimate guide to successfully implementing an advanced safety management system that ISM actually is.

The saying commitment from the top means that it is in the overlying subsystems that one sets the standard for the underlying subsystem. Underlying subsystems will only follow what the overhead does. Is safety important, if it feels as if it is an honest and sincere approach and will to create a good safety
Appendix 3  Fredrik Hjorth

culture. Then it will also be reflected in the underlying subsystems of the whole system – shipping.

References
Hjorth, F. (2008). *Arbetstider och arbetsvillkor ombord på tvånavigatörsfartyg: en studie av fartyg i Östersjöfart med enbart befälhavare och endestyrman som nautisk kompetens ombord (Working hours and working conditions on board twonavigatorships: a study of vessels in the Baltic Sea trade with only the master and one officer with nautical skills on board)*. Kalmar, Sweden: Högskolan i Kalmar.
Lindquist, C. (2003). *Studie av visst statistiskt material med anknytning till ett urval av collisioner och grundstömnings i vilka trötthet/sömn har konstaterats ha haft stor eller helt avgörande betydelse (Study of some statistical data related to a variety of collisions and groundings in which fatigue / sleep has been found to have had a major or critical importance)*. Norrköping, Sweden: Sjöfartsverket.


I don’t like work – no man does – but I like what is in the work – the chance to find yourself. Your own reality – for yourself not for others – what no other man can ever know. They can only see the mere show, and never can tell what it really means. (Conrad, 1902)
Below please find a list of recent publications in the series Linnaeus University Dissertations. For a full list and more information: Lnu.se


