Safety Culture in the Maritime Industry: Psychological Safety and Leadership

An exploratory study regarding safety perspectives within a heavy lift shipping and installation company

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Abstract

The interpretation of safety management systems (SMS) and safety culture has been challenged. Traditional viewpoints (i.e. Safety-I) focus upon avoiding risks and respond reactively to deviations. These approaches aim to understand the cause of failure and neglect positive aspects. New ideas around safety management are emerging (i.e. Safety-II). These aim to complement SMS by valuing humans as credible sources of information. This perspective purposes to understand current performances and acknowledges human variability.

To obtain this input, individuals should feel free to express themselves. Psychological safety promotes open sharing and supports a 'blame-free' atmosphere. Moreover, the behaviour of leaders may impact to what extend followers engage in open communication; authority figures should act as leading examples and build trust with followers.

The current study explored to what extent Safety-II ideas are emerging within the maritime industry. It was examined how psychological safety and leadership (e.g. authentic leadership) are experienced and related to this perspective. The sample includes crew members from various ranks (N= 10). The objective is to seek opportunities to improve safety culture.

Themes related to Safety-II became evident among various crew members (e.g. feeling of 'doing it together'). Additionally, initiatives to improve safety management were shared. As expected, SMS positive impact was acknowledged yet associated with high amounts of 'paperwork'. This may induce the feeling of bureaucracy and disempowerment among the crew. Furthermore, the hierarchical composition and cultural differences within the maritime industry were revealed to hinder free speech. Positive leadership characteristics were described to improve this (e.g. caring or being accessible).

This study revealed positive ideas and initiatives concerning the Safety-II perspective. It is recommended to further examine and implement Safety-II approaches aboard ships. Applying ideas from the bottom-up may improve SMS and facilitate safety culture. The initiatives were related to positive characteristics of psychological safety and (authentic) leadership.

Keywords: Maritime industry, Safety Management Systems (SMS), Safety culture, Safety-I, Safety-II, Psychological Safety, Authentic leadership

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1.0 Introduction

Working in the maritime industry involves crew members' extended exposure to risk full situations. This sector is considered to be safety-critical. Moreover, the injury and mortality rates are higher when compared to land-based industries (Oldenburg, Baur, & Schlaich, 2010). This stresses the importance of safe operations and proper environments aboard ships.

Shipping companies are held responsible for the application of Safety Management Systems (SMS) to ensure safe work conditions among all employees (IMO, 2019). By providing some benchmarks, the International Chamber of Shipping (ICS) launched the International Safety Management Code (IMS code) to guide SMS (2013). Over the past years, a certain level of safety at sea has been attained. For example, major shipping accidents have been decreased. In addition to this, SMS have considerably improved the maritime safety culture (Teperi, Lappalainen, Puro, & Perttula, 2018).

Safety culture is a subset of the organisational culture. It consists of the collection of beliefs, values and attitudes among all employees related to risks and safety matters (Guldenmund, 2000). A positive safety culture lays the foundation for mutual trust within organisations. This is characterised by a shared feeling about the importance and effectiveness of safety and its measures (Bhattacharya, 2015). The impact of a positive safety culture can be demonstrated at all levels of the organisation. It connects and drives everyone towards the common goal of maximising safety.

One of the core ideas of SMS was to create an environment of open incident reporting and establish a 'just culture' in the maritime industry (Bernatik, Kocurkova, & Jørgensen, 2017). The concept of just culture is related to systems thinking and based upon shared accountability in complex situations. This means recognising the ubiquity of error (Reason, 1998). Mistakes are seen as the product of the entire organisation and employees feel like they are treated fairly with regards to them.

Nevertheless, Bhattacharya (2015) measured safety culture on various vessels and found that shipping companies often lack a 'blame-free' atmosphere. This atmosphere should facilitate incident reporting and encourage open communication. It will give the crew confidence that everything can be reported without fear of any negative consequence. When there is a lack of this, individuals might be inhibited from communicating and become demotivated. This may negatively impact safety conditions (Bhattacharya, 2015).

Shea (2005) likewise aimed for a deeper understanding of safety culture within the maritime industry. The study found avoidance behaviour with regards to open incident reporting. Besides, the perception of a negative reward system among crew members was revealed. This proves that safety culture still needs improvements to facilitate SMS.

The Finnish Accident Investigation Board (2009) identified factors that reflect a poor implementation and development of SMS and safety culture within the maritime industry (Teperi et al., 2018). The factors which contribute to deviations aboard include a lack of communication, together with inconsistencies in the understanding of situations between crew members. Additionally, the implementation of SMS was indicated to cause excessive amounts of 'paperwork'. This may lead to bureaucracy and a feeling of disempowerment among the crew (Bernatik, et al., 2017). As a result, individuals may perceive a culture in which they seek to avoid (reporting) errors; since this is associated with time-consuming investigation reports and documentation from top-down.

However, this traditional way of approaching and managing safety is characterised by the Safety-I perspective (Hollnagel, 2014). The interpretation of safety management and safety culture has been challenged over past years. This led to a paradigm shift in safety thinking (Provan, Woods, Dekker & Rae, 2020). Traditional approaches (i.e. Safety-I) aim to avoid risks using reactive responses that focus on the cause of (human) failure. In other words, to prevent future harm, they try to understand how and why things went wrong. To this degree, they neglect successful safety performances (Teperi et al., 2018).

The newer perspective of Safety-II is not meant to replace Safety-I approaches. Rather, these approaches are intended to complement the traditional SMS. They value human factors as a credible resource to create and maintain safe work operations (Hollnagel, 2014). From a Safety-II perspective,

the focus is upon 'the system's ability to function as required under varying conditions' and human variability is acknowledged. This way, the work-as-done (i.e. current performances) is at the heart of attention and may provide positive learning opportunities that benefit safety management (Hollnagel, 2014; Smith & Valenta, 2018).

The concept of just culture originates from the traditional safety perspective (i.e. Safety-I) since the focus is centred upon fairness regarding failure or (human) error (Stevenshorrock, 2016). To explain, if someone feels mistakes are treated fairly, this does not guarantee that the person also feels safe enough to report them. This is supported by the studies of Bhattacharya (2015) and Shea (2005) who found avoidance behaviour and perceived blame regarding safety reporting within the maritime industry. Specifically, to reach open communication, everyone should feel free to express themselves without fear of repercussion, humiliation or other damage to self-image. Such an atmosphere can be described as psychologically safe (Edmondson, 2004). Psychological safety covers to what extent employees dare to take interpersonal risks in their communication.

In a psychological safe atmosphere, engaging in open sharing and giving feedback will not have negative consequences or harm the self. Rather, this is perceived to be positive since it fosters team-collaboration and learning (Edmondson, 2004). Psychological safety extends just culture by valuing that next to shared accountability regarding mistakes or failure, everyone should feel free and confident enough to open up about workplace matters (i.e. regardless of the others' function or position). This condition can be considered as a necessity to obtain all crew members' input. Psychological safety may be beneficial for Safety-II approaches since it embraces that everyone's voice is of importance and should be heard. Because of this, it may give valuable insights to further understand how this concept and the Safety-II perspective are related.

Furthermore, concerning SMS, behaviours based upon the 'old day's maritime culture' are still suggested to occur and may create barriers for its breakthrough. This is based upon the hierarchical organisational structure and functional composition onboard ships, which divides officers between sailors. Often, social distance is perceived between these two. Major concerns for improvement at the level of authority figures include the lack of clear two-way communication and openness to criticism; together with their ability to create a sense of community among the crew that motivates free speech and discussion. This may impact safety culture in such a way that it inhibits individuals' willingness to engage in a proactive attitude towards safety. Therefore, a more elaborated understanding of how leadership can support (psychological) safety aboard may be beneficial to improve this.

In short, the current study aimed to explore to what extent characteristics of the new safety perspective (i.e. Safety-II) are emerging among crew members of a heavy lift and shipping company. Not much research has been done regarding Safety-II in the maritime industry, except for one research project that aimed to overcome this shortage in Finland (Teperi, Puro, Perttula, Ratilainen, Tiikkaja & Miilunpalo, 2016). They found that SMS support traditional approaches (i.e. Safety-I) but not the creation of a positive safety culture. After literature research, consultations were held with the research company of this study. Two factors were considered to be of importance for safety improvement among the crew. These identified factors were psychological safety to improve overall safety culture, and authentic leadership to positively impact authority figures' leadership in specific. The research question of this paper is:

RQ 1.0 How do safety perspectives relate to psychological safety and authentic leadership?

1.1 Safety Perspectives. Safety is often defined as 'the state whereas few things as possible go wrong'. Many SMS adhere to zero accident policies that hold that all accidents can be prevented (Hollnagel, 2014). This perception aligns with the Safety-I perspective. Namely, safety is managed reactively when deviations occur and humans are seen as a potential source to understand the cause of failure. The Safety-II perspective does not neglect the importance of this. Rather, it values that besides there are more learning opportunities that may benefit the SMS; whilst focusing upon current

performances. In this manner, humans are perceived as credible sources that provide flexible solutions within complex systems.

In other words, although the Safety-I approaches neglect the human potential to improve the system's safety, the Safety-II perspective is not meant to be a replacement. It is suggested that SMS should be complimented with this viewpoint by understanding the work-as-done (i.e. or current functioning), human variability and local knowledge (Hollnagel, 2014). Due to the complexity of shipping operations, traditional approaches that focus upon understanding failure remain important. Considering a ship's technical specifications, also prescriptive regulations are needed to prevent future harm. Despite this, the prevailing bureaucracy and perceived blame culture in the maritime industry evidence that a new focus is needed. To be more precise, a positive focus is needed that stimulates crew members to become more proactive around safety (Teperi et al., 2018).

Studies revealed the effect of learning from successful performances (positive reinforcement). This experience may even enhance the positive influence on the brain when compared to learning from failure (negative reinforcement) (Kelly, Blake & Plunkett, 2016). Thereby, the reporting of negative observations or near misses may further be encouraged by Safety-II approaches since individuals already feel heard and engage in the reporting of current successes (Provan et al., 2020). To substantiate understanding of the underlying principles, *Figure 1* summarises the characteristics of the different safety perspectives as divided between the old- and new (i.e. Safety-I or Safety-II).

	Old safety thinking (i.e. Safety-I perspective)	**New safety thinking** (i.e. Safety-II perspective)
Definition of safety	When as few things as possible fail.	When as many things as possible go well.
How safety is managed	In a reactive manner; responding when deviation occurs.	In a proactive manner; continuously trying to foresee and deal with things in advance.
View of the human element	Humans are seen as a source for error-reporting; the focus is upon understanding (human) failure.	Humans are seen as valuable resources for flexible solutions; the focus is upon understanding behaviour.
Purpose of policies and procedures (e.g. safety reports, investigations)	To understand what went wrong; reports examine failure and identify causes and contributory factors.	To understand how things usually go right; reports describe current performances to explain how things could go possibly wrong.

Figure 1. Overview of different safety perspectives.

1.2 Psychological safety. Psychological safety refers to an atmosphere without fear for damaging self-image or status while expressing oneself. In terms of safety culture, it is the shared belief held by the crew that the environment is safe for "openly stating one's views or opinions about workplace matters, including the actions or ideas of others, suggested or needed changes, and alternative lines of reasoning for addressing job-related issues" (Premeaux & Bedeian, 2003).

When employees perceive the climate as psychologically safe, they will feel freer to report observations and work with more ease. This will eventually result in reduced labour accidents (Edmondson, 1999). To illustrate, employees value the corresponding subjective consequences of their actions and the related perceived interpersonal threat before acting. If these consequences do not contain blame or damage self-image, people feel psychologically safe and are more willing to report observations (Kirkman, Chen, Farh, & Lowe, 2009). When employees perceive low levels of psychological safety, they may want to avoid being perceived as incompetent or disruptive. They do not ask important questions or report observations, but rather remain silent.

In a psychologically safe environment, employees are more involved with the team and are more willing to share beliefs that foster team learning and collective problem solving (Kumako, & Asumeng,

2013). An example of behaviour in such an environment might be that employees dare to correct each other. They perceive this as a learning opportunity rather than giving negative feedback (Edmondson, 2004). The positive characteristics of psychological safety may be beneficial for Safety-II approaches since everyone's opinion is appreciated and open communication gets encouraged. In such a manner, psychological safety expands the scope of the traditional concept just culture, by valuing the extent to which crew members feel safe to express themselves. The focus is not just upon whether mistakes are seen as the product of an entire organisation. Rather, the focus is upon whether individuals value team learning, and feel safe enough to speak out their minds to achieve this.

1.2.1 Authentic Leadership. Leadership is an important factor that may influence the creation and maintenance of psychological safety. The characteristics of authentic leadership are beneficial to create a psychologically safe environment onboard ships. Prior research evidenced that these concepts were positively related to each other (Frazier, Fainshmidt, Klinger, Pezeshkan, & Vracheva, 2017). According to Walumbwa et al. (2008), authentic leadership is based upon four distinct components. This leadership style is defined as "a pattern of behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster: (1) greater self-awareness, an (2) internalized moral perspective, (3) balanced processing of information, and (4) relational transparency on the part of leaders working with followers" (p. 94).

In other words, authentic leaders are (1) self-reflective and aware of their strengths and limitations. Specifically, they use them in such a manner that they (2) openly share thoughts with followers in a 'balanced way' (Towler, 2019). To illustrate, these kinds of leaders express to subordinates that they (3) value everyone's viewpoint equally. Authentic leaders care about their relationship with followers and base their decision-making upon (4) ethical foundation (Towler, 2019).

These kinds of leaders foster open communication and the sharing of information by inviting everyone's input. While doing so, they are aware of their behaviour and their openness and clarity herein (Neider & Schriesheim, 2011). This will impact the organisation in such a way, that this behaviour is likely to be mirrored by followers. Individuals will feel eager to express opinions and ideas (Avolio, Gardner, Walumbwa, Luthans, & May, 2004). Concerning the maritime industry with its hierarchical organisational structure, authentic leaders stay true to themselves and do not encourage socially desirable behaviour. Rather, they try to foster originality and uniqueness among themselves and others. This may decrease the perceived social distance between officers and sailors.

Nevertheless, much research that confirmed the beneficial role of authentic leadership only demonstrated this effect by focusing on authority figures at the top of hierarchical organisational structures (Hirst, Walumbwa, Aryee, Butarbutar, & Chen, 2015). The IMS code is also believed to place too much emphasis upon the role of a vessels' Master (Teperi et al., 2018). This may reinforce the hierarchical structure of the maritime industry. In hierarchies, the leadership behaviour and attitude from the top will first influence other higher-ranking personnel. Subsequently, this will flow down to the lower ranks (Hirst et al., 2015). Regarding the operative personnel, the need for a proactive attitude around safety is evident. This seemed to be hindered by the frequently perceived blame culture (Provan et al., 2020).

1.3 Current study. In short, psychological safety extends the scope of the traditional (i.e. Safety-I) concept just culture that centres around failure. In this sense, it adds that next to shared accountability regarding deviations in the system, everyone should feel free and confident to open up about workplace matters (i.e. regardless of the others' function or position). In such a way, crew members are encouraged to engage in the open sharing of information. Since it is stressed that everyone's voice is of importance and should be heard, psychological safety may support the complementary Safety-II approaches. Besides this, its presence can be considered as a necessity to obtain all crew members' input.

Moreover, behaviours that are based upon the old-day maritime culture are still believed to occur and hinder SMS breakthrough. Major concerns for improvement at the level of authority figures (i.e. Master or officers) include the lack of clear two-way communication, openness to criticism, and their ability to create some community among all crew members that encourages open sharing. This stresses the need for positive leadership (i.e. authentic leadership) within the maritime industry.

A previous study at the research company of this paper quantitatively examined psychological safety among its on- and offshore employees. Additionally, the relationship of authentic leadership with psychological safety was examined. Psychological safety was hypothesised to mediate the relationship

between authentic leadership and the number of reported safety observations (i.e. positive observations, negative observations, and suggestions) (Grimm, 2020).

The results revealed that authentic leadership was able to significantly predict psychological safety in the total sample. Nevertheless, psychological safety among the offshore sample was low when compared to the onshore sample; so were the number of positive safety observations and suggestions as reported by the crew. Contrary to the hypothesis, high levels of authentic leadership predicted high levels of negative safety observations, and low levels of positive observations (i.e. and suggestions) (Grimm, 2020).

The finding that high levels of authentic leadership fostered the reporting of negative observations and neglected positive observations (i.e. and suggestions) may reveal the need to scrutinize safety perspectives among the crew. To illustrate, it might be that authority figures perceived negative observations or near misses to be of great importance to improve safety aboard (i.e. Safety-I perspective). In this case, leaders behave rather reactively when they perceive that something is going wrong. Subsequently, they encourage crew members to report these kinds of issues so action can be undertaken.

This behaviour of leaders that focuses upon what is lagging instead of leading might be mirrored among other crew members. As a result, the crew's perceptions regarding safety reporting will be negatively biased. The opportunity to learn from positive observations and suggestions remains neglected since the focus is laying elsewhere (e.g. preventing error). Thereby, the likelihood for the creation of a blame culture is increased when failure is centred. This may explain the low levels of psychological safety among the offshore sample.

The current study aims to improve this situation by exploring positive learning opportunities. It was examined to what extend ideas around the new safety perspective (i.e. Safety-II) are emerging within the maritime industry. Since psychological safety and leadership (e.g. authentic leadership) are important factors for a positive safety culture; the focus was upon their impact among diverse crew members of a heavy lift and shipping company. The data collection involved one-on-one interviews. Crew members were questioned about their experiences and ideas related to psychological safety and positive leadership onboard ships. More detailed research questions of this paper are:

RQ 1.1 To what extent have ideas around the Safety-II perspective emerged?

RQ 1.2 How is psychological safety experienced aboard?

RQ 1.3 How is leadership believed to facilitate or hinder (psychological) safety?

2.0 Method

2.1 Participants. In 2021, interviews were held with 12 participants working for a heavy lift and shipping company within the time frame of two months (i.e. May and June). The sample comprises operative personnel from different positions and varying ranks (i.e. three masters, two chief engineers, two chief officers, two second officers, one boatswain) together with two onshore office employees (i.e. the office manager from the Philippines and an employee of the technical department). The latter two interviews were not recorded (nor transcribed) and therefore not included in the research sample of this study (*N*= 10). Because it was assumed that work experience at both 'sides' would support understanding of the research topic(s) and may give valuable insights, the pilot was held with an ex-seafarer who currently works onshore as a technical superintendent.

Among the total sample, there were three different nationalities named, the majority was Dutch (*N*= 8) followed by Philippine (*N*= 1) and Russian (*N*= 1). The interviewees had varying experiences with working offshore and/or on shipping projects. Nevertheless, since the goal was to achieve an overall picture, no distinction was made based upon this. The interviewees conducted the interviews from various locations. Some were located at their home, whilst others were on board a vessel. None of the interviewees was located at the same vessel at the time of data collection.

2.2 Procedure. Because of practical reasons, the participants were recruited and contacted by the research company of this study. It was expected that an in-company invitation would increase participation due to familiarity. After the respondents agreed to participate, their contact details were provided to the researcher. Subsequently, they received a personal invitation. This invitation consisted of an information sheet and informed consent. Additionally, to increase the familiarity with the researcher and the research topic(s), a personal introduction and explanation of the research aim were published on the company's intranet.

After respondents agreed upon the informed consent, a date was discussed and links were sent out per email to participate in the one-on-one interviews via Zoom. The interview schedule contained an introduction with background information regarding safety management (i.e. policies), leadership and psychological safety. This introduction was piloted; whether jargon or other terms were used in the right manner was discussed during this pilot as well. The interview guide was made into two versions. That is, a Dutch and an English written one. Whenever possible, interviews were conducted in the native language of the interviewee (i.e. Dutch). The English version of the interview guide is attached as *appendix 1*.

As agreed upon by the informed consent, the interviews were audio- and video recorded. The recorded files were (only) used by the interviewer, to substantiate the transcription process of the data. After the interviews were transcribed, all the recorded materials were removed and the anonymised transcripts were used for data analysis purposes (e.g. quotations, statistical analysis).

2.2.1 The interview. The interview started with a general introduction to maritime safety culture. The concepts of psychological safety and leadership were highlighted as well. Reportedly, crew members' basic assumption of how they experience safety was obtained (e.g. *How do you experience safety on board?*). Additional questions were used whenever interviewees did not reveal much information in the first instance (e.g. *How do you think that safety can be improved?*). This way, the aim was to gain insight into the current holding safety perspectives. Example situations were requested to use and it was supported by the interviewer to give input. It can be said that research topics were approached in a rather practical way. The answers to these questions were believed to give insight into different ways of approaching safety (i.e. *Can you give an example of positive safety performances?*).

After this, interviewees were asked about their experiences in terms of psychological safety (i.e. *Do you think that people feel safe to openly express themselves on board?*). The factors that may impact crew members' experience of psychological safety were discussed in a dialogue setting (i.e. *Can you give an example that illustrates that crew members did (or did not) feel safe to engage in free speech?*). Additionally, prerequisites for psychological safety were examined (i.e. *What hinders (or fosters) an atmosphere of open communication aboard?)*. It was expected that example situations would reveal how psychological safety onboard ships can be improved.

Next, interviewees were asked how they believed that leadership could benefit (psychological) safety aboard (i.e. *How do you think that leadership can positively impact safety management?*). In this manner, leadership characteristics could be examined that may facilitate safety management. The

interviewees were informed to describe aspects that may serve as positive learning opportunities (i.e. *Can you name leadership skills or attributes that are important to possess onboard ships?*).

As of last, interviewees had free space to provide any other information that they considered to be of importance. The interviews were then transcribed with the support of transcription software Amberscript. The transcription reports were analysed utilizing data analysis and research software Atlas.ti. The data were coded and grouped and summarised the answers to the research questions. The developed code groups represent an overview of the main content of the results. In this manner, it became easier to make comparisons with the theoretical framework of this study. Additionally, frequency tables are used to illustrate how common certain types of codes (i.e. or themes) were among the crew. This enhanced the understanding of the findings.

3.0 Results

By utilising Atlas.ti, the transcription reports were analysed and explored for repeating themes per research subject (i.e. general aspects, safety perspectives, psychological safety, leadership). While analysing the data, a distinction was made based upon the interviewees their profession (i.e. Master, VMT, other crew members). The VMT symbolises the Vessel Management Team and includes the vessel's Master and first chief officer- and engineer. To support, this was believed to provide a better overall picture of the findings.

Valuable statements in the reports were coded and, if related to the same underlying construct, combined into code groups. The developed code groups contain codes (i.e. or statements) from both positive and negative themes. Codes related to the same theme were grouped under the belonging subject (e.g. `(+) psychological safety: inclusion and commitment` or `(-) general aspect: time pressure`). In this way, the results were better able to provide a detailed overview of the content per sub-question. The total count of statements (i.e. sum) is reported, even as the number of interviewees that brought the related theme up within their interview.

3.1 General aspects. First of all, the reports were explored for general statements with regards to safety. The interviewees were requested to define how they experience (psychological) safety. It was encouraged to explain hindering and supporting factors by using examples. The data got coded and repeating themes became evident throughout all three groups in which the research sample was divided (i.e. Masters, VMT, other crew members).

The positive statements (sum= 11) could be combined into two code groups. The first group `Improvement over the years` (sum = 5) comprehends that interviewees (*N*=4) specified safety to be improved. Safety management went through many changes which positively affected overall safety onboard ships, it was specified that: *'safety has definitely improved over the years, it's a big difference with how it was before'* and '*in the past, the focus was more upon efficiency, but currently this is completely at the side of safety'*.

The second code group that came into view involves statements (sum= 6) that proved safety to be the `first priority` aboard. This positive theme became evident throughout Masters, the VMT and other crew members (*N*=5). It was said that no matter under which circumstances, everyone should acknowledge that: '*safety always has priority number one and we handle that very professionally … It may remain person-dependent, but especially the practical implementation indicates that it simply has the first priority while doing our job'*.

Despite this, interviewees repeatedly mentioned the increase of documentation or 'paperwork' related to safety management to be very time-consuming (sum= 9). These statements were combined into the code group `bureaucracy` and cover that many interviewees (*N*= 6) perceived the amount of documentation (or procedures) regarding safety to be high: *'We need to do a lot of administration and documentation related to safety matters … sometimes this is too much, there are already so many procedures'.*

Next to this, varying interviewees (*N*=6) reported difficulties whilst working with often `new crew members` (sum= 7). It was described that new employees need time to adjust to how safety is managed within the organisation and onboard the ship. They have to get used to all new procedures and need to experience how they are executed. Working with inexperienced crew members was considered to be hard, because: '*they* (i.e. new crew members) *do not know how we work and they are not familiar with what we consider to be safe … we have to teach them our safety standards and that takes time*'. The unfamiliarity of the new members may negatively influence the overall safety on board, especially when other safety standards are used.

As of last, `time pressure` is considered to negatively influence general safety performances (sum= 9, *N*=8). Overall, it was declared that time pressure is something that the crew imposes on themselves. The cargo plan was described to be made and approved by the ship and thereafter shared with the onshore office. So, whenever the schedule is too tight, this may be due to faulty decision making or other unforeseen circumstances from aboard. This was confirmed by a crew member who explained that: *'Of course, there is always some kind of time pressure, but it remains true that we impose this on ourselves! Time pressure is not coming from the office, even though this is sometimes said … See, the port planning and cargo plan is often quite tight, but this is made and approved by us, so we did it to ourselves'.*

Nevertheless, this does not mean that time pressure is harmless. To be more specific, the communication via the radio on board has the consequence that everyone can hear everything. Crew members may therefore interpret that they should hurry and experience time pressure when there is a bit more rush. To support, it was said that: *'When people believe there is pressure they start to act upon this and they take shortcuts to work faster … and where do they take these? In safety!'.* This shows the importance of consistency in understanding the situation among crew members.

Table 1 provides an overview of the code groups that became apparent and describe how `safety in general` is experienced throughout the sample. The code groups are divided between positive- and negative themes (e.g. vertical axis). The results summarise the number of interviewees per sample group (e.g. horizontal axis: Masters, VMT, other crew members) which named relatable statements within their interview. The total frequencies per code group can be seen in the last column (e.g. total).

Table 1. General aspects of safety (i.e. positive and negative themes) among Masters, the VMT, and other crew members.

Safety in general	**Master** (*N*=3)	**VMT** (*N*=4)	**Other** (*N*=3)	**Total** (*N*=10)
Positive themes				
`Improvement over years`	2	1	1	**4**
`First priority`	2	2	1	**5**
Negative themes				
`Bureaucracy`	3	1	2	**6**
`New crew members`	3	1	2	**6**
`Time pressure`	3	2	3	**8**

Furthermore, the last column is illustrated in *Figure 2* as divided between positive and negative themes (e.g. horizontal axis). Per code group, the total number of interviewees that highlighted this theme within their interview is displayed numerically (e.g. vertical axis). A differentiation in colours is made to exemplify how frequent the code group emerged as divided between interviewees' functional positions (i.e. Master, VMT or other crew members).

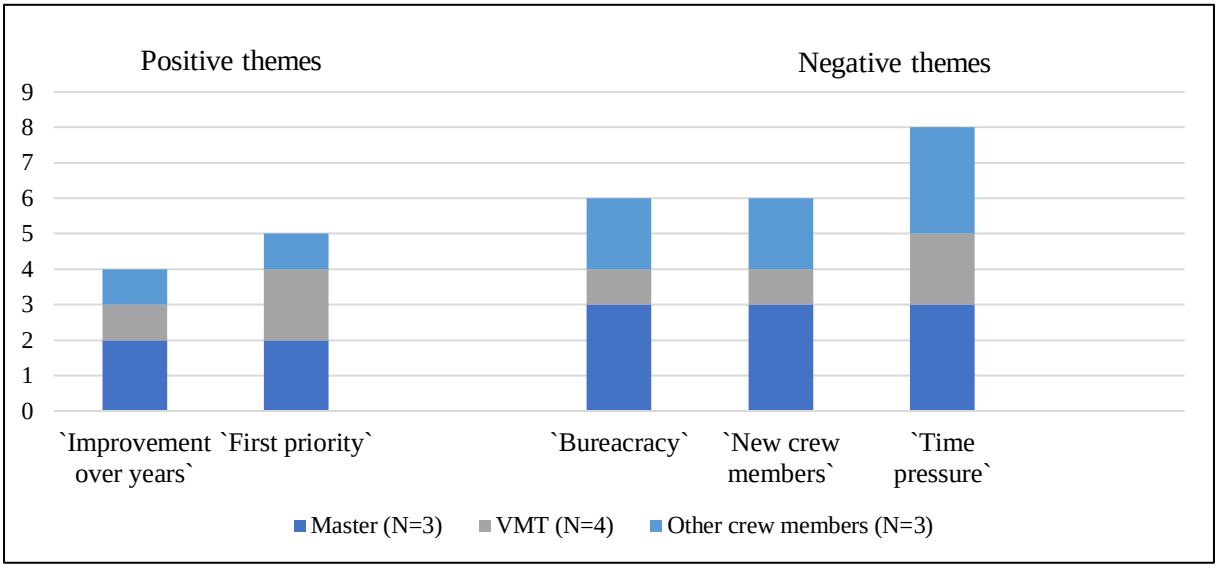

Figure 2. Positive and negative themes related to safety in general among various groups (i.e. Master, VMT, Other).

3.2 Safety-II. Second of all, since the aim was to explore to what extent new safety perspectives are emerging, the transcription reports were analysed for statements that could be related to the Safety-II perspective. Interviewees were asked to describe examples of positive safety performances. It was also explored how interviewees assumed that safety management could be improved. This was believed to reveal a basic assumption of interviewees' safety perspectives. The positive statements (sum= 11) could be combined into the two code groups `room for positivity` and `doing it together`.

The first group indicates that over time it has been changed in such a way that there is 'room' to mention positive aspects aboard (sum= 6, *N*= 6). However, this theme became more evident among other crew members and the VMT than among Masters (*N*= 1). For example, an officer explained that positive feedback is given and that there is the opportunity to reflect upon positive performances: *'Actually, it became traditional to give away more compliments to people, so we always look at the summation, not only at the critics. By doing this, we also try to talk more about safety, so with positive safety observations'.*

This quotation is in line with the Safety-II perspective. Specifically, it encompasses the idea that the purpose of safety management is to understand how things usually go right; by focusing upon current performances. Another situation in which humans are seen as valuable resources for flexible adaptations becomes clear from an example regarding the writing of safety observation cards: *'So you can write a hazard situation card when you saw someone on deck without a helmet. But you can also change it differently, that the other writes a positive card that he forgot his helmet but fortunately someone reminded him.'* This positive way in which safety is managed resembles how ideas around the Safety-II perspective are developing within the maritime industry.

Another positive repeating theme that appeared in the light of Safety-II, was the among various crew members (*N*= 5) shared idea of `doing safety together`. This was revealed by statements (sum= 5) that stressed the importance of teamwork and caring for each other. It was acknowledged that for doing so, it is important to emphasise that you should work as a team. In this manner, crew members are more encouraged to be involved, and rather speak out their minds when they feel psychologically safe. An example situation that covers this is that: '*once, the trash was still in the hold of the ship and we were already busy with closing the shutters. But, a crew member approached me* (i.e. officer) *and told me that it was not the right timing to close everything because there were still some trash bags laying.*' This feeling of shared accountability is in line with the Safety-II perspective. Related to this, it was claimed by another interviewee that working towards team collaboration went step by step. This encompasses that crew members learn to listen to each other from time to time.

Table 2 provides an overview of the positive themes that align with the Safety-II perspective (e.g. vertical axis). The results summarise the number of interviewees (e.g. horizontal axis: Masters, VMT, other crew members) who named relatable statements within their interview. The total frequencies can be seen in the last column (e.g. total).

Table 2. Positive Safety-II themes among the three research groups (i.e. Master, VMT, other crew members).

Safety-II	**Master** (*N*=3)	**VMT** (*N*=4)	**Other** (*N*=3)	**Total** (*N*=10)
Positive themes				
`Room for positivity`	1	2	3	**6**
`Doing it together`	2	2	1	**5**

Furthermore, the last column is illustrated in *Figure 3*. Per code group, the total number of interviewees who highlighted related statements within their interview is displayed in a numerical manner (e.g. vertical axis). Differentiation in colours is used to exemplify how frequent code groups emerged as divided between interviewees' functional positions (i.e. Master, VMT or other crew members).

3.2.1 Safety-II: Positive initiatives. Interviewees revealed suggestions or ideas (i.e. positive initiatives) to improve overall safety (culture). These could be related to the Safety-II perspective. From

these initiatives, it can be seen how ideas around Safety-II may differently come into view throughout the hierarchical organisational structure of the maritime industry. Concerning the Master of the vessel, who has the end responsibility of the planning, the idea was brought up to incorporate more members while making the cargo plan. It was even said to be: '*most ideal, the entire crew is involved while discussing the planning'.* This stresses the importance for the shared feeling of 'doing it together' and empowers teamwork.

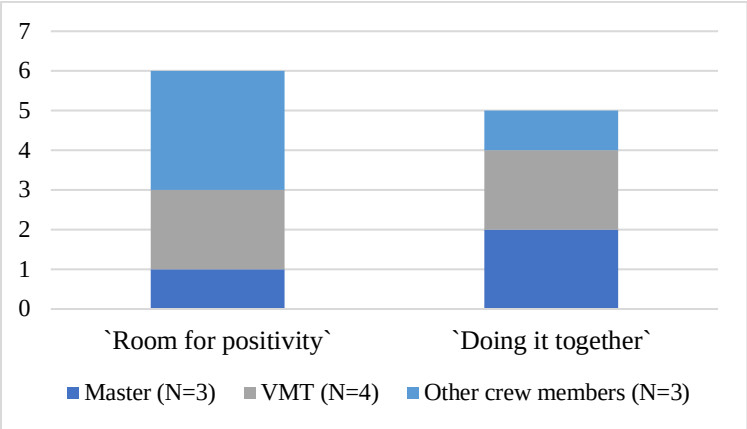

Figure 3. `Room for positivity` and `doing it together` among Masters, the VMT, and other crew members).

This idea became evident too among members of the VMT. To illustrate, the initiative coming from this group involved a pre-and post-port meeting between officer(s) and sailors to discuss the cargo plan. The post- port meeting was further intended to reflect upon past performances. Therefore, this approach emphasises the need to learn from positive opportunities as well (i.e. or `room for positivity`): '*I think it's very important that everyone knows what to expect while being at the port … Look at the sea, it is every day the same: the boatswain comes up with a schedule, which is usually daily maintenance. But when we arrive it's different, the hatches have to be opened and the waste has to be delivered, or people come on board. I just think that it is important to share this with everyone in a kind of meeting, a pre-port meeting'.*

Shared accountability or the encouragement of a shared feeling of `doing it together` also became apparent among other crew members. From this group, the initiative to choose a responsible person to write down the safety observation cards (SOC) was revealed. The idea behind this was to motivate other crew members to become proactive around safety. This approach is in line with the Safety-II perspective that values humans as functional recourses of information. Besides, it was added that: '*when there is nothing negative to write down, this is also a safety observation, a positive one!'.* This example shows that ideas around the new way of thinking about safety (i.e. Safety-II) are developing since the focus upon successes is encouraged. *Table 3* summarises the discussed positive initiatives which are in line with the Safety-II perspective as divided between Master, VMT and other crew member (e.g. horizontal axis).

Table 3. Positive initiatives related to the Safety-II perspective.

Positive initiative	**Master** (*N*=1)	**VMT** (*N*=1)	**Other crew member** (*N*=1)
	Including more members, while discussing the cargo plan;	Discuss the cargo plan and hold pre-and post-port meetings with crew members;	Choose a responsible crew member to write safety observation cards (SOC);

3.3 Psychological safety. Third of all, the concept of psychological safety was explained and interviewees were questioned about how they experience psychological safety aboard. The 'stop mentality' was repeatedly used to explain that everyone knows that they can all the time say 'stop' when they do not feel safe to work further. This positive example illustrates the importance of psychological safety among the crew. Some interviewees used more than one example. For this reason, the total amount of statements (i.e. sum) is reported, next to the total amount of participants that mentioned the related theme within their interview.

A theme that appeared from the statements (sum= 6) related to psychological safety concerned `inclusion and commitment`. To better explain, interviewees (*N*= 5) stressed the importance of involving everyone and securing that everything can be said. This becomes clear with the following example: *'I always try to do my best to be open to everyone so that people dare to come to me to say something. Especially about safety but actually about everything … and that comes together with the important stop mentality, everyone is allowed to say it! I try to stimulate that by taking everything seriously, even the small or silly things that people say'.*

Next to this, interviewees were questioned about which factors hinder open communication onboard ships. Two negative themes became apparent and statements could be combined into the code groups `cultural differences (and language barriers)` and `hierarchical composition`. The first group made an appearance throughout the entire research sample of this paper (*N*= 10). Various statements explained how cultural differences and barriers regarding communication between crew members with diverse national cultural backgrounds (i.e. Eastern-European, sum=10; Asian, sum= 12) could negatively influence safety performances. Philippine crew members were explained to be saving face in front of others, for example: *'they are not used to say: hey, can you explain that again? … they do not dare that, and in general, they do not take initiative'.*

Another example of this might be that Philippine crew members were argued to rather say 'maybe' instead of 'no'. Besides this, spoken English of Philippine crew members was described to be sometimes different. This was the same for officers with Eastern-European nationalities. For the latter, it was explained that their English sometimes did not expand beyond work-related matters: '*You are not able to talk with them* (i.e. Eastern-European officers) *about things outside work … besides, they are less social and more in their rooms.*'

The second hindering theme related to psychological safety involves the `hierarchical composition` of the maritime industry with its old-established culture. The statements (sum= 10) which were related to this code group emerged throughout almost the entire sample (*N*= 9). It was portrayed that sailors look up towards officers: '*A lower rank will not easily say from someone in a higher position that he has done something wrong, that is just not said … but what sometimes is also not being said by juniors is whether they understood everything correctly'.* This quotation describes how the hierarchical composition onboard ships may still hinder open communication between ranks.

Hierarchy can further be related to culture since Philippine crew members emphasize the importance of someone's hierarchical position and score high on power distance. To illustrate, it happened once that *'a Philippine on the bridge thought that when I (*i.e. Master) *entered the bridge, I immediately took over his work … this almost went wrong!*'. This example proves how easily bad events can happen when there are no questions asked or explanations given.

Table 4 provides an overview of the code groups related to psychological safety, as divided between positive and negative themes (e.g. vertical axis). The results summarise how frequent interviewees (e.g. horizontal axis: Masters, VMT, other crew members) mentioned related statements within their interview. The total frequencies can be seen in the last column (e.g. total). Furthermore, the last column is illustrated in *Figure 4*. Per code group (e.g. horizontal axis), the total number of interviewees that highlighted related statements within their interview is displayed in a numerical manner (e.g. vertical axis). A differentiation in colours is made based upon interviewees' functional position (i.e. Master, VMT or other crew members).

3.4 Leadership. As of last, it was questioned how leadership could positively impact (psychological) safety. Various statements (sum= 13) were made regarding aspects or skills which interviewees believed that leaders should possess. To start, it was remarked that leaders should be able to create a positive overall atmosphere on board and care about crew members. Their behaviour was characterised to be leading for others and therefore of special importance: '*It starts with yourself, you are an example for them* (i.e. other crew members) *and they copy your behaviour'.*

Next to this, the overall atmosphere aboard was revealed to be influenced from top-down. It was illustrated that when the VMT disagrees with each other, this will have its effect until the *'last sailor on deck*'. This proves the importance of creating a positive ethical climate among the crew. To explain, open communication should be encouraged and start at the VMT, however, it was said that '*If the captain really wants something, then it will happen, simple as that. It is not a democracy but a hierarchy … You will notice the difference when you for example have school leavers and experienced officers mixed. Then it looks nice on paper this VMT, this team, but then you no longer speak of equality'.* This indicates that leaders should acknowledge the downside of the hierarchical organisational composition of the maritime industry and improvements are needed.

Table 4. Positive and negative themes related to psychological safety among various groups (i.e. Master, VMT, Other).

Psychological safety	**Master** (*N*=3)	**VMT** (*N*=4)	**Other** (*N*=3)	**Total** (*N*=10)
Positive themes				
`Inclusion and commitment`	2	1	2	**5**
Negative themes				
`Cultural differences (and language barriers)`	3	4	3	**10**
`Hierarchical composition`	3	4	2	**9**

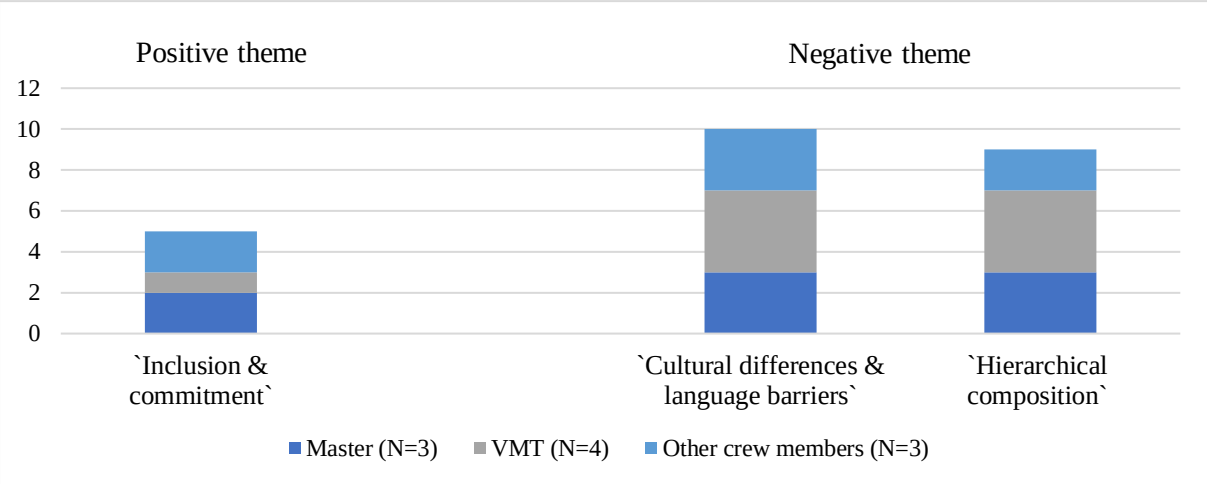

Figure 4. Positive and negative themes related to psychological safety among various groups (i.e. Master, VMT, Other).

Good leaders were described to be accessible and value two-way communication: '*I found out that communication comes from two sides and that you are responsible for whether the other person understands you correctly'.* In such a manner, followers are more likely to feel understood and heard. Most desirable, this will impact them in a way that they dare to speak out their mind; even when a misunderstanding occurs. Through a word cloud, *Image 1* summarises the themes that came to light related to positive leadership characteristics.

3.4.1 Authentic leadership. The positive leadership attributes that were revealed by interviewees share certain commonalities with the authentic leadership style. Firstly, both value a positive ethical climate between leaders and followers. Open sharing of information is encouraged and

leaders are perceived to act fairly. This positive behaviour is likely to be mirrored by followers and authority figures are supposed to be leading examples. Authentic leaders care about their followers and base their behaviour upon an ethical foundation.

Throughout the interviews, the role of the boatswain also appeared to be of special importance to improve safety performances. To elaborate upon, sailors were displayed to rather speak out their mind to the boatswain than to officers. The boatswain was described to behave positively when he acts as a leader and should encourage sailors to become more committed to safety management. In short, as for other authority figures, the boatswain should be a leading example and may impact other crew members' behaviours. According to interviewees, *'the boatswain is a kind of leader and his behaviour is reflected in that of the other Filipinos. Communication with him is important and through that, we* (i.e. VMT or officers) *gain information about things which we otherwise would not know'*.

Figure 5. Diverse attributes, characteristics and skills related to positive leadership.

4.0 Discussion

This study explored safety perspectives among various employees of a heavy lift and shipping maritime industry. It was aimed to examine to what extent ideas around Safety-II approaches were emerging. Furthermore, the focus was upon crew members' experience and perception of psychological safety and positive leadership (e.g. authentic leadership) as well. These factors are believed to be crucial while working with different nationalities, strong hierarchies and different rotation schemes, to create a free exchange of opinions, ideas or concerns.

To support, crew members feel more often restricted from open dialogue than authority figures (e.g. Master, officers) expect. Some of the behaviours that are based upon the old day's maritime culture and its hierarchical organisational structure still occur. This is expected to hinder the breakthrough of SMS. Because of this, it was examined how crew members experience psychological safety and define promoting leadership behaviour, attributes and/or skills.

In general, safety was perceived to be the `first priority` in everyday shipping operations. Improvements in safety management over the years were acknowledged. This supports the positive impact of the implementation of SMS within the maritime industry (Teperi et al., 2018). Despite this, safety management was often reported to come along with many procedures and high amounts of 'paperwork'.

This perception aligns with prior studies which found increasing `bureaucracy` within the maritime industry (Bernatik et al., 2017). As a consequence, this may lead to a feeling of disempowerment among the crew and negatively impacts their commitment. Since the documentation is illustrated to be very time consuming, it is at least of necessity that everyone feels like there is enough time to comply with the safety standards. Otherwise, crew members may for example not report observations because they perceive this to add pressure. `Time pressure` was explained to negatively influence safety performances among crew members. When time pressure is experienced, individuals act upon it and want to work more efficient. They might take shortcuts to work faster, and as a consequence negatively impact safety conditions.

Next to this, the presence of often `new crew members` (i.e. or inexperienced crew members) was perceived to negatively impact the overall safety on board. They were described to be difficult to work with because it needs time to learn and get used to the high safety standards. For this reason, it becomes again important to emphasise that no time pressure should be experienced during shipping operations. To illustrate, it should be acknowledged that safety always remains priority number one and that following and learning the standards is not easily done. This demonstrates the urge for good communication among the crew and shows the importance of 'consistency in understanding the situation'; something which often seemed to lack according to Bernatik and his colleagues (2017).

4.1 Safety-II. Regarding the first sub-question, it was revealed that ideas around the new way of thinking about safety were emerging (i.e. Safety-II). Several interviewees mentioned the importance of `doing it together` and making `room for positivity`. To start, crew members revealed to share the belief that you should work together, as a team. This means that everyone is equally held accountable and responsibility is shared. As aligned with this positive attitude, the giving of positive feedback became more apparent (i.e. compliments); even as the writing of positive safety observation cards. This indicates that the shift to Safety-II thinking is developing within the maritime industry. However, the theme around a positive approach to safety management was more evident among members of the VMT and lower ranks than among Masters. This may have negative side effects. Namely, crew members' cohesiveness regarding SMS implementations may positively affect safety culture since this strengthens the shared feeling that everyone works towards the same goal.

Besides, positive initiatives to promote safety management were suggested throughout the entire sample. These ideas support the presence of Safety-II thinking. To elaborate upon, the initiative that came from the first group (i.e. Masters) enhances the feeling of `doing it together` by acknowledging that more crew members should be involved while discussing the cargo plan. The initiative from the second group (i.e. VMT) also emphasises this importance, by valuing that everyone should be informed about the planning through pre-and-post port meetings. Furthermore, `room for positivity` is established with these meetings since the post- port meeting evaluates upon what went well.

Lastly, proactivity among other crew members around safety management was tried to be encouraged. This way, the shared feeling of `doing it together` gets increased. To illustrate, by initiating

a shared responsibility regarding the writing of safety observation cards (SOC), crew members are inclined to become more involved concerning safety matters. The `room for positivity` is further supported by this initiative through the inclusion of writing positive SOC. These initiatives that arise from the bottom-up illustrate how Safety-II approaches utilise humans as credible resources for the creation and maintenance of safe work operations.

4.2 Psychological safety. Regarding the second sub-question, the importance of `inclusion and commitment` among crew members was revealed to be beneficial for psychological safety. Interviewees stressed that to work safely, the whole crews' involvement is required. Officers tried to encourage a proactive attitude by acknowledging that everyone's input is welcomed and perceived as valuable. This approach to safety management has much in common with Safety-II approaches. That is, humans are perceived as credible sources that provide valuable information. Psychological safety, or the idea that everything can be said, was further acknowledged by the 'stop mentality'. This pointed out that everyone should feel confident enough to say it out loud when a situation does not feel safe.

Nevertheless, several interviewees stated that there is still a lack of open communication between crew members. This is assumingly due to the `hierarchical composition` of the maritime industry and `cultural differences (and language barriers)` onboard ships. It was explained that crew members are less likely to correct someone from a higher hierarchical position. Individuals with national cultural backgrounds high in power distance (i.e. Asian) were even said to rarely do this. These individuals were represented as to look up to those who they perceive to be 'higher'. Furthermore, they try to save face while being in the presence of others. For example, Philippine crew members were said to not always admit it when they do not understand an explanation; they rather say 'maybe' when they mean 'no'. Along these lines, Bhattacharya (2015) and Shea (2005) found that crew members often show avoidance behaviour and perceive blame regarding safety reporting. Because of this, it may be of special importance to highlight that everything can be said, regardless of others' functional position or cultural background.

From the negative impact of cultural differences and the strong hierarchical composition, it can be suggested that maritime safety culture still needs improvement. More specifically, for Safety-II approaches to reach their full potential, it may be of necessity that the crew feels psychologically safe. When crew members do not feel like they can fully express themselves, they will not provide the important information that serves the base for the Safety-II perspective.

4.3 Leadership. Regarding the last sub-question, positive leaders were characterised as easily accessible, caring for followers, and able to create an open atmosphere aboard. The authentic leadership style values these principles by promoting an internalised moral perspective and creating relational transparency on the part of leaders working with followers (Walumbwa et al., 2008). Along these lines, leaders can build trust by showing mutual respect and encourage open communication. The open atmosphere onboard can be related to authentic leadership styles' aim to promote a positive ethical climate. Thereby, this description has much in common with the characteristics of psychological safety.

Furthermore, the stimulation for a proactive attitude regarding safety among crew members was revealed. This bottom-up approach to safety management aligns with ideas around Safety-II that embrace everyone's participation. Authority figures should act as leading examples, this was also believed for the boatswain. To better illustrate, the boatswain was described to behave positively when he acts as a 'real' leader for the other sailors. By doing so, commitment among the crew is encouraged and they are likely to mirror this behaviour. This example illustrates the importance of focusing upon authority figures from various ranks in complex hierarchical organisational structures such as the maritime industry.

4.4.1 Limitations. Much research that concerns leadership only focuses on the behaviours of those at the top. Regarding the maritime industry, this may neglect the plausible impact of its old-established hierarchical and functional composition. Because of this, the current study did not only focus on the Master of the vessel but involved officers and authority figures of diverse ranks. By doing so, this study acknowledged the hierarchical organisational structure of the maritime industry and aimed to understand how leadership pervades throughout different ranks. However, the concept of authentic leadership was not directly examined. Rather, it was aimed to get insight into how positive leadership was perceived by the crew to facilitate (psychological) safety. Because of this, no direct links to authentic leadership could be made.

In terms of the procedure of this study, a negative side effect of the in-company invitation may be that respondents questioned their anonymity or privacy. For example, they may have thought about what information they would reveal. In addition to this, not the whole crew could be covered due to time constraints and no use was made of random sampling. To explain, the respondents were approached based upon the order in which the researcher received their contact details. There was no control for this. Besides, since there was just one researcher (i.e. and coder), the results could be biased due to subjective validation.

As of last, the majority of the sample was Dutch; from all fleet interviewees, two individuals had a different nationality (i.e. Russian and Philippine). As a result, most interviews were conducted in Dutch, others in English. This may have biased the result since it may be the case that interviewees felt more confident, or were better able, to express themselves in their native language.

4.4.2 Practical implications and recommendations. The interviews shed light upon the shared belief that safety always remains priority number one. However, the communication over the radio can be heard by everyone on board; this has the consequence that through certain messages individuals may subjectively perceive time pressure. To illustrate, when crew members experience that they are in a rush, they might act upon this and want to work more efficient. This may have negative results for overall safety performances, especially when crew members take 'short-cuts'.

Therefore, it should be emphasised that safety always remains the first priority number and that no time pressure should be experienced. Besides this, it is important to ensure a shared understanding of the situation among crew members. According to Bernatik, Kocurkova and Jørgensen (2017), this often seems to lack in the maritime industry. Communication channels (e.g. over the radio) should be improved and the impact upon the whole crew should be taken into consideration. The positive initiatives from this study show an example of how crew members want to increase commitment and encourage everyone's involvement regarding the cargo plan.

The complaints concerning the amounts of paperwork indicate that no additional documentation is preferred. There are already many functional procedures and guidelines that improve safety and it should be secured that safety management becomes a 'bureaucracy'. As Hollnagel (2014) explained, the Safety-II perspective is rather a reaction upon traditional approaches which utilise reactive responses to detect causes of failure. To better explain, the Safety-II approach tries to understand current functioning and focuses upon the work-as-done and open dialogue. In this way, proactivity among operative personnel is promoted and the feeling of 'disempowerment' may be reduced. Because of this, it is recommended to aim for the creation of an atmosphere that supports the Safety-II perspective; and to implement the positive initiatives that come from this bottom-up approach.

According to interviewees, it is therefore important that authority figures create a positive overall atmosphere. Positive leadership was characterised by being an example for followers and the giving of (positive) feedback. Leaders were recommended to stimulate crew members commitment through the encouragement of open communication. They should be easily accessible and express their genuine interest in subordinates (i.e. caring for others). It is therefore recommended to implement interventions that aim to improve these behaviours or skills among those in authority positions.

To conclude, further research should not neglect the impact of the hierarchical organisational structure of the maritime industry while examining safety culture or leadership. It should be acknowledged that perceptions and opinions may vary from person to person or department to department, therefore sub-cultures may cultivate. It is recommended to further examine how leadership at the top (i.e. Master) may flow down the hierarchy and impact other crew members' attitudes.

4.5 Conclusion. This study explored safety perspectives among various ranking crew members of a heavy lift and shipping company. It was evidenced that ideas around the Safety-II perspective are emerging and opportunities for improvement were revealed. The results demonstrate that the overall belief was shared that safety is 'done together'. Also, there was more 'room for positivity' regarding current safety management. This empowers a feeling of inclusion and commitment among the crew which is beneficial for psychological safety and Safety-II approaches.

The positive initiatives that emerged from interviews illustrate how (authentic) leadership can improve involvement and open communication onboard ships. The Safety-II perspective has emerged yet did not reach its full potential within the maritime industry. Whilst continuing to focus upon the work-as-done and recognising human factors as a credible source of information; SMS will become more dynamic, proactivity is encouraged and maritime safety culture will improve.

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Appendix 1: Interview Guide

Because working in the maritime industry involves high risks, safety management within organizations is aimed at maximizing safety on board. Jumbo is convinced that all accidents can be prevented and thereby encourages everyone to contribute to the improvement of safety.

For this reason, it is important that everyone feels free to express his or her opinion about the environment, and the work of themselves or others (this concerning safety issues in particular). Psychological safety allows people to speak up without fear of negative consequences. No interpersonal resistance is experienced and people dare to express everything and take risks within their communication.

Many factors can influence psychological safety (e.g. group cohesion and leadership). About leadership: the authentic leadership style has many characteristics that can optimally promote a psychologically safe climate through open communication around the entire crew. This interview aims to broaden understanding of the safety culture, with a particular focus on psychological safety and the role of leadership herein.

Introduction & safety perspective

1. Can you tell me something about yourself and your profession?

2. How do you experience safety on board?

- What are positive experiences concerning safety on board, can you perhaps describe examples of this?
- What are negative experiences concerning safety on board, can you perhaps describe examples of this?

3. How do you think that safety can be improved?

4. Is the focus around safety also focused on what is going well?

- Can you give examples of this?
- What do you think about this?

Psychological Safety

6. To what extent do you think that everyone feels safe to openly express themselves?

- What is your experience with this, do you have any examples?
- Is there a difference here between ranks / different crew members?

7. What could be improved in the current situation regarding a psychologically safe working environment aboard?

***Optional*:** What hinders or fosters psychological safety? How do you think this will affect safety in general?

Leadership and Conclusion

8. How do you think that leadership (positively) contributes to safety aboard?

- Can you give examples of this (e.g. positive behaviour, skills or attributes)?
- What can be improved about the current situation?

***Optional*:** How can leadership contribute to a psychologically safe working environment?

10. Would you like to say something in addition about safety, atmosphere or leadership?