

Why Do We Ask Why?

-Finding Meaning After a Violent Loss

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Why Do We Ask Why?
-Finding Meaning After a Violent Loss

Thesis work submitted in partial fulfilment of the requirements
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Abstract

Some qualitative research has been conducted on how relatives who lost loved ones in an accident find meaning. A hypothesis was developed that meaning is found through a trinity of three themes: justice, learning and punishment. Through interviews with people who have experienced a violent loss and focus group discussions with people who have not, the research explores whether meaning is found through justice, learning and punishment. The results showed that the hypothesis, to some degree, can be applied. However, the measurement of each theme of the hypothesis is highly subjective, and the individual will have their own way of finding meaning. Based on the literature review and the data collected, the conclusion is that learning needs to happen to ensure prevention. Punishment becomes more relevant the lesser the intention is to learn, and justice can be found through either learning or punishment.

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Introduction

On the morning of January 2nd 2019, around 07:30, an express train operated by Danske Stats Baner (DSB) collided with a freight train operated by Deutsche Bahn (DB) on the Great Belt Bridge in Denmark. The accident caused the death of eight persons, making the accident the worst train accident in Denmark in thirty years (Ahrens & Flyvbjerg, 2020). For six months, this had been ‘my train’. I was working in Copenhagen at the time, and my morning commute was with this train. I used to sit in the car, which got the most damage. However, I was not on the train that day because of a job change. So this accident has been in my mind ever since, and when Danish Broadcasting Corporations made a TV documentary on the accident, I immediately sat down to watch it.

In the documentary, we follow the families of the victims pursuing an answer to why no individual from DSB or DB was held accountable and punished. The families allegedly seek justice for the deaths of their loved ones through such accountability and punishment. The documentary is centred around a man named Lasse, who lost his fiancée in the accident. In the first episode of the documentary, Lasse says (researcher’s translation from Danish): “The goal is not revenge; the goal is justice” (Bindesbøll & Venge, 2021). In the aftermath of the accident, the police have concluded that no individual is culpable for the accident (Ahrens & Flyvbjerg, 2020), and the families are struggling to acknowledge this, as laid out in the TV documentary. I particularly became curious about Lasse’s statement about revenge and justice, and this thesis research is dedicated to exploring the underlying rationale and/or emotions of Lasse’s statement..

Research can be conducted with the aim to generalise in the broader perspective (Polit & Beck, 2010), e.g. to explain why workers act the way they do, why dogs bark or why the climate is changing. In social science, however, we investigate a small piece of many people’s lives and

then draw assumptions (Brinkmann, 2021). The researcher seeks to understand an individual and personal experience through this research. In short, the research is seldom able to explain any big picture. However, by investigating a single person's statement, the reader will hopefully recognise aspects of this, thus provoking them to reflect on themselves. Through this reflection, the research might bring value to the reader in the sense of becoming more aware of their own feelings and assumptions. Further, this research hopes to shine a light on accident investigations by drawing on the experience of people who have been emotionally hurt by losing a loved one in an accident.

Multiple actors play a role in the aftermath of an accident. These actors will have different goals and expectations for the investigation (Dekker, 2014b). This research will focus on how the relatives of victims of accidents find meaning in their trauma, thus helping them to come to terms with their grief. The term "unspoken victims" will be used throughout the research for these relatives.

The research will be based on an initial hypothesis shaped on the basis of Lasse's statement, the TV documentary as a whole, and safety science discourses; that unspoken victims and society have an inherent notion of a "trinity" between: punishment, learning, and justice (figure 1) which can help to develop a sense of meaning after a violent loss. The preliminary literature search has illustrated that this particular aspect of dealing with accidents is not very well-explored in the common safety science literature. Further, the research touches on the families' perceived needs regarding the outcome of an investigation.

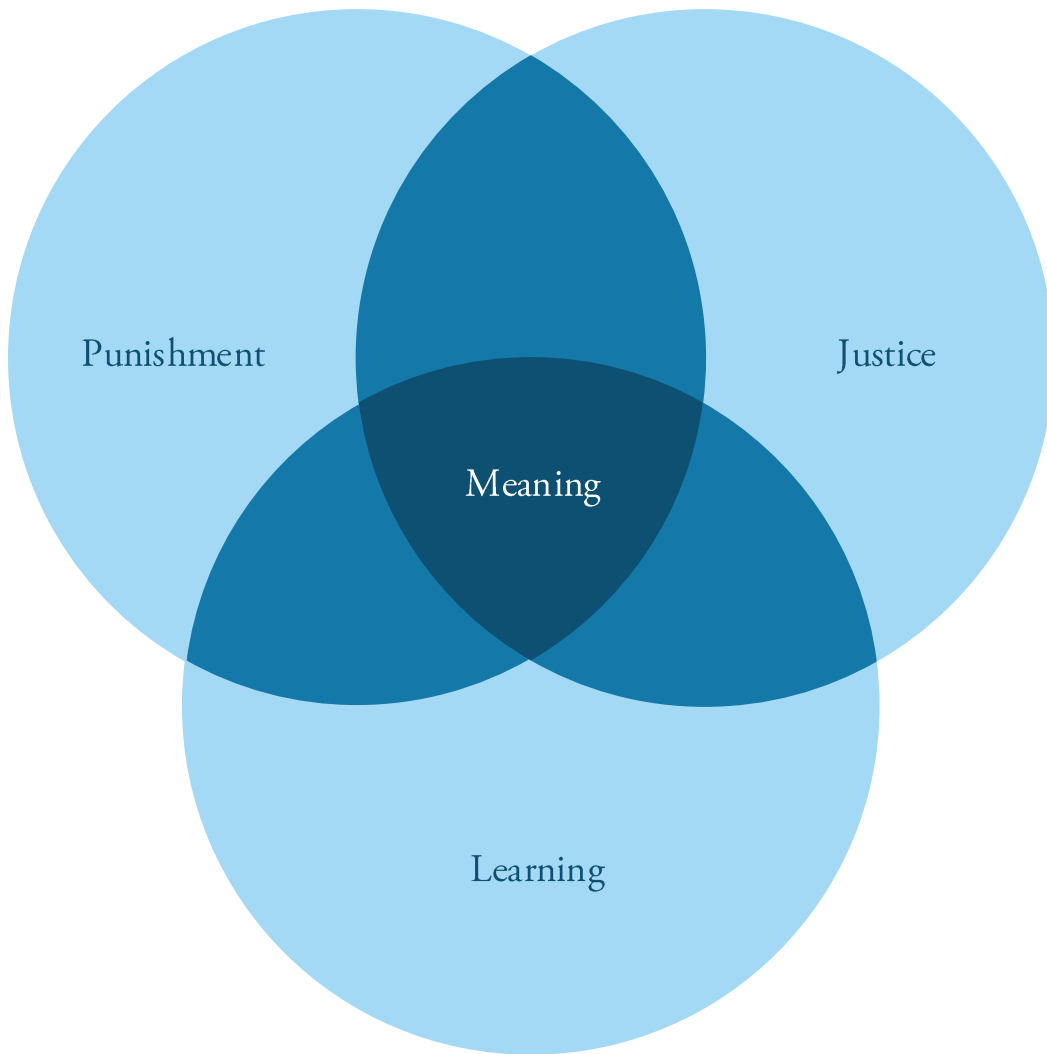


Figure 1 – Finding meaning through justice, learning and punishment

Literature Review

The following literature review will seek a foundation for the research. Through the review, different aspects of the research area will be presented. The purpose of this is to provide a conceptual overview of the research topic (Thomas & Hodges, 2010). The conceptual overview will be provided through a brief mapping review (Grant & Booth, 2009). The purpose is to establish some of the already published work, both academic and non-academic, to understand the current “knowledge position” in relation to the research theme of this thesis. The hypothesis was developed during talks with the thesis supervisor, and the themes of the hypotheses were used to guide the literature search. Further, references from a seminal paper by Dekker (2014b) about the psychology of accident investigations were used to guide the literature search.

Searching for literature has been an ongoing process throughout the work, with developing the research design as well as the thesis itself. Lund University Library’s LUBsearch, Scopus and Web of Science have been used, primarily with the use of keywords and a combination of keywords derived from the hypothesis. Then, the researcher skimmed titles, abstracts and papers to identify relevant and beneficial papers; some of the considerations for followup were: Publishing journals, number of citations as well as coverage of the different themes of the hypothesis.

The literature review is split into different sections based on the hypothesis to be explored and, to some degree, the keywords used: *Meaning with trauma, grief, justice, punishment, and learning with the purpose of prevention*. These themes were vital to the development of the research question presented after this literature review.

Meaning With Trauma

Dekker (2014b) describes different psychological purposes of accident investigations, depending on the perspective that is dominant for the various stakeholders. He clarifies that we can have four different purposes for the investigation, being: (1) *an epistemological approach where the focus is on explaining what happened*, (2) *a preventive approach where the investigation aims to explain how to avoid recurrence*, (3) *a moral approach where the focus is on explaining the deviance*, and (4) *an existential approach which seeks to explain the suffering* (p. 202).

The fourth and last approach is interesting for this research because, in the aftermath of an accident, people allegedly need to have an explanation for their suffering (Davis et al., 1998). After a traumatic event, unspoken victims need to confront questions about their meaning in life; Janoff-Bulman and McPherson Frantz (1997) propose, as a result of working with victims for more than two decades, two different ways in which unspoken victims find meaning in their suffering: *meaning as comprehensibility, and meaning as significance*. To find meaning as significance is to find value or worth in the trauma. By finding meaning as comprehensibility, a victim will question whether an event fits into their worldview and having the event ‘make sense’. This is in line with some of the statements made in the documentary on Danish Broadcasting Corporation (Bindesbøll & Venge, 2021) that the death of the eight persons can not be in vain, and therefore the families seek to find justice.

We need to try and find meaning in the violent loss; however, another part of experiencing a loss is the grief process, as described by Pine (2014):

In a sudden, unexpected accidental or disastrous death, survivors have had no opportunity to accustom themselves to the idea of that person’s actual or anticipated

death. Additionally, accidents involve what most of us believe are inappropriate deaths in that the victims are disproportionately in the young category. Under these circumstances, the grief potential following such a death is likely to be high. (p. 103)

Grief

It is essential to establish that a difference exists between bereavement, grief and mourning because this can help us understand what a violent loss means to an unspoken victim (DeSpelder & Strickland, 2015). Bereavement is defined by the objective occurrence of loss, which is the experience of something or someone abruptly torn from one's life (Dubose, 1997). So, while bereavement is an experience of something done to us, grief is the emotional response or reaction to the loss (DeSpelder & Strickland, 2015). There exists a consensus between researchers, practitioners and bereaved that there is no right or universal response to a loss (Rubin et al., 2013). The reaction may appear directly after the loss, be delayed, or never show (DeSpelder & Strickland, 2015). Lastly, mourning represents:

“...the process by which a bereaved person integrates the loss into his or her ongoing life. This process is determined at least partly by social and cultural norms for expressing grief. Grief and mourning are the natural pathways toward coping with loss” (DeSpelder & Strickland, 2015, p. 345)

Grief is a central part of life (Brinkmann, 2021), and it is undeniable that all people will, at some point in life, experience grief; some, including the researcher, might say that “to grieve is to love and live”. As Attig (2004) puts it: “Because our lives are woven together with the lives of those we care about and love and we cannot change the event when one of them dies, bereavement challenges us to take constructive action in response” (p. 342).

After a traumatic loss, people will grieve. Research has shown that people who experience a violent and sudden loss will suffer more emotional distress than people who experience non-violent loss (Boelen et al., 2015) or as Redmond (2014) puts it: “When death occurs from sudden, unexpected circumstances such as accidents, suicide or murder, bereavement reactions are more severe, exaggerated and complicated.” (p. 53) This is not to say that people who lose loved ones in a non-violent way do not experience any trauma from the loss. Weeks (2014) suggest that “...the useful perspective is to view deaths on a continuum from minimally traumatic, on the one end, to extremely traumatic, on the other.” (p. 127)

A century of psychological research has established a scholarly consensus that is showing sadness in grief is essential for recovering from a traumatic experience (Kofod & Brinkmann, 2021). Kofod (2021) describes how grief research has moved from focusing on the internal feeling of grief to instead focusing on grief as socioculturally embedded meaning-making. With this, Kofod (2021) explains that grief is inherent in life, and how the individual deals with grief take the form of ritual, and this ritual is there for us as individuals to move on. These rituals can, and often do, include a funeral service:

“Many funeral rituals are religious–traditional, liturgical services where the bereaved may be passive observers rather than active participants. Mourners often choose traditional services because the services are predictable, familiar, and comfortable. This predictability can create structure and stability amid chaos. In addition, many choose these types of services because they do not have to participate, make any decisions, or expend their already drained emotional energy. Trauma survivors may experience such an emotional

and physical numbness that they are incapable of participating in funeral rituals.”

(Weeks, 2014, p. 130)

Similarly, Kellehear (1984) believes that “We are not a death-denying society” (p. 720) and that individuals will express their grief differently. Some individuals will deny death, while others will express feelings. However, these emotions will be expressed differently depending on the organisational setting. Kofod and Brinkmann (2021) ascribe this often as the grieving person’s fear of being a killjoy.

Justice

In recent years, an idea has emerged within the safety science literature that blaming individuals for an accident will reduce organisational learning (Dekker, 2014a; Heraghty et al., 2021; Reason, 1997). Therefore, it is suggested that the focus of an accident investigation should be on restorative justice (Dekker & Breakey, 2016), and often the adoption of a ‘just culture’ is equalled with an increase in safety (Boysen, 2013; Dekker & Breakey, 2016). For instance, it is regulated by EU law that European aviation companies should adopt a Just Culture (“REGULATION (EU) No 376/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation,” 2014). However, at the same time, Reason (1997) acknowledged that “A wholly just culture is almost certainly an unattainable ideal” (p. 205)

Nevertheless, when talking about individuals dealing with the trauma of a violent loss, the individual’s focus might not be on restorative justice in an organisational learning way, as much as the focus is on culpability, accountability and blame (Alicke et al., 2008). Thus, accountability and blame often restore the world’s sense of justice. In Denmark, recently, there was a massive

focus on meat-eating bacteria; a documentary on the Danish Broadcasting Corporation started this whole debate (Jonatan Placing, 2021). The show was a three-episode documentary that focused on three cases of individuals who got infected by the bacteria. The bacteria causes around 150 deaths in Denmark annually and is a highly aggressive bacteria that needs instant care if the infected are expected to survive. In the last episode of the TV documentary, we follow the case of a man who got an infection after surgery and died from the infection. Throughout the episode, his widow tells the story from surgery until death. In one of the last scenes, the widow pronounced (loosely translated from Danish by the researcher): “I had to make a formal complaint because they had taken Henrik from us; they have changed my life. In order to serve justice for Henrik’s untimely death. I wanted to ensure that they learned so that others would not come into the same situation.” (Jonathan Placing, 2021)

Interestingly, the public draws equally on complaint, accountability and learning. In public, we see it time after time; ministers have to resign, Captains are sent to prison, and people are fired. Society seeks the meaning of suffering, and through that, someone or something is to blame (Alicke, 2000; Dekker, 2014b).

Defining the word “justice” can be a troubling and exhausting task. A definition might be found when looking for “organisational justice”. Cropanzano et al. (2001) studied the “organisational justice” phenomena. They seek to answer three questions through their research, which the first is of interest to this research; (1) *What is the structure of justice?* (2) *What is the target of our justice judgements?* and (3) *With what are we concerned when we evaluate fairness?* (p. 179)

When answering the first question, what is the structure of justice, Cropanzano et al. (2001) conclude that: “At this time in the history of the justice literature, there is virtual

consensus regarding the idea that people do indeed care deeply about the social side of fairness.” (p. 180) With this, they suggest that people’s feelings of justice can be divided into procedural justice and interactional justice, which should be treated separately. This is similar to what Lind (2001) calls the Fairness Heuristic Theory:

Overall fairness judgements will be used to address concerns about exploitation and identity investment, and these issues are best addressed, I would argue, when what people generally mean by fairness is not a single fair transaction but rather a fair relationship. Put somewhat differently, when people think about fairness, they think about where they stand in long-term, enduring relationships. (p. 80)

Another place we can look for a definition of justice is in theology. When searching the bible for quotes on justice (through www.openbible.info), it was discovered that more than 100 verses were the result. Most of the verses are from the Old Testament. For instance, Proverbs 21:15 says: “When justice is done, it is a joy to the righteous but terror to evildoers.”

Stanley and Kay (2022) performed a series of 8 studies examining why people across religions and cultures link morality and God. Further, they examined why people who believe that God is a supreme moral authority tend to increase their response to perceived injustices in the world. One of their studies (study 1) showed that across multiple religions, when people believe God is a moral authority, then the same people have a need for structure. Further, Stanley and Kay (2022) were able to extend on previous research, which showed that people who do believe that the world is just, tend to use “...compensatory strategies aimed at rejecting the reality that people do not always get what they deserve. That is, injustices are reconstrued as just.” (p. 13)

Punishment

Punishment has been a well-researched topic for a long time, stretching from the research on punishment as a physical phenomenon on rats (Estes, 1944) to how an organisation can be punished for illegal activity (Coffee, 1981). Estes (1944) investigated how punishment as reinforcement could lead rats to change learned behaviour. Interestingly, Estes (1944) discovered that "...a response cannot be eliminated from an organism's repertoire more rapidly with the aid of punishment than without it. In fact, severe punishment may have precisely the opposite effect." (p. 37). Punishment can help suppress behaviour in rats, but punishment is not the most effective to eliminate the behaviour altogether.

So how can we define punishment? Church (1963) argues that it is far simpler to define a punishment procedure than the punishment itself. One way to define punishment can be to induce fear in the organism. The organism will fear a specific behaviour; thus, the behaviour will be suppressed. Similarly, Coffee (1981) based his research on how to punish organisations for undesirable behaviour. In his work, Coffee (1981) looks at the economics of punishment; more precisely, how big a fine needs to be to deter an organisation of certain behaviours. He draws on the work of Becker (1968), arguing that "Economists generally agree that an actor who contemplates committing a crime will be deterred only if the "expected punishment cost" of a proscribed action exceeds the expected gain." (p. 389)

As for punishment, blame has a central role in the search for meaning. Further, blame and punishment are "...two cognitive cornerstones of norm enforcement." (Buckholtz et al., 2015, p. 1369) Therefore, blame serves as social control. In the western world, people believe that events are controllable comprehensible, and non-random (Davis et al., 1998), and when people commit ethical, moral and/or legal transgression, they should be held accountable for their actions

(Alicke, 2000). It is believed that by blaming and punishing transgressors, we discourage people from jeopardising others' physical and psychological well-being (Alicke, 2000). Alicke et al. (2008) describe how unspoken victims may start blaming perpetrators if they perceive that the perpetrator have influenced a harmful outcome. Further, Alicke et al. (2008) describe that unspoken victims may use counterfactual reasoning to explain the consequences of an event; "Of all the predictions that have issued from different counterfactual reasoning perspectives, the most fundamental is the assumption that negative emotions are heightened following an unfortunate event that could have been averted" (p.1379).

Circling back to punishment, South Korea enacted a Serious Accident Punishment Act (SAPA) at the beginning of 2022 (Choi et al., 2022). This act is based on numerous severe accidents in South Korea: Bridge collapse, department store collapse, and multiple ships and ferries total loss. This law aims to ensure that the business owner or chief executives can be charged with fines or imprisonment (Choi et al., 2022). The idea for the act is based on United Kingdom's Corporate Manslaughter and Corporate Homicide act, but there are differences. While the United Kingdom law only punishes corporations, the South Korean act can as described, punish both employers and corporations (Kang, 2022). Still, the South Korean act is new and is still to prove whether it will decrease serious accidents in South Korea. At first glance, it seems that the major accidents are not yet history in South Korea, as 151 people were tragically stamped to death not less than two months ago (Bae et al., 2022); so, the question arises, does punishment help to learn?

Learning

It can be challenging to establish precisely what ‘learning’ is, as De Houwer et al. (2013) put it: “Learning has been a central topic in psychological research virtually since the inception of psychology” (p. 631). However, a very basic definition of learning can be behaviour change based on experiences (De Houwer et al., 2013). Going forward, however this may be a too simple definition of the term.

Drupsteen and Guldenmund (2014) have extensively reviewed the safety science literature regarding learning from unwanted outcomes. They then compare this literature to the theory of organisational learning by Schön and Argyris (1996).

According to Schön and Argyris (1996) learning starts with the collection of information. The information might be new information or knowledge, or it could be information or knowledge which has not been absorbed until now. This information then needs to be stored and processed by the organisation or individual, depending on at what level we are talking about learning. Schön and Argyris (1996) differentiate between two ways of learning, “single-loop learning” and “double-loop learning”. The difference in the two ways of learning depends on what level is influenced by the learning. Single-loop learning is when the feedback loop only influences the actions directly connected with the outcome, while double-loop learning will feed back to the underlying values:

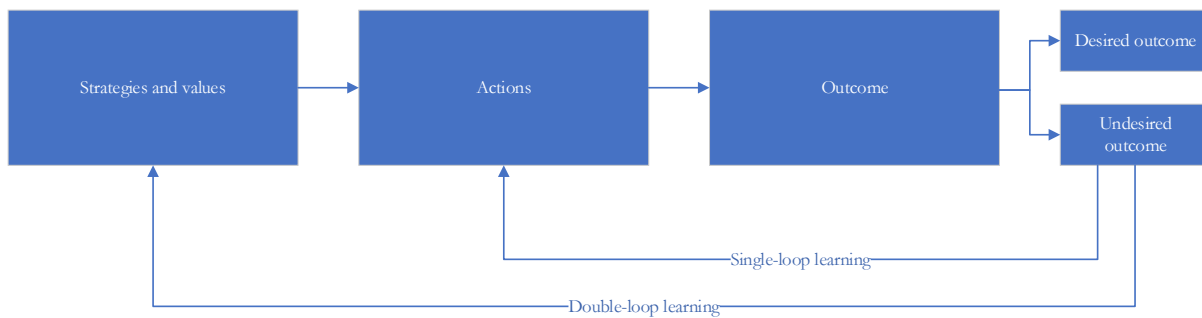


Figure 2 – Schön and Argyris (1996) model on single- vs double-loop learning (Researcher's own drawing)

Drawing on this learning can happen, but it matters where it happens. Does the learning take place in the immediate place, changing one's actions, or does the learning take place at a deeper level, thus changing the individual's worldview? Drupsteen and Guldenmund (2014) conclude that learning from accidents and incidents can have value. But there are limitations. They argue that the possibility for double-looped learning is often missed because of "...difficulties in the identification of organizational factors and managerial weaknesses that created the conditions for the event to occur." (p. 94). Further, it matters why and what one would want to learn.

Learning for Prevention

"Organizations like airlines try to learn from experience, understanding what went wrong so that it won't go wrong next." (Haunschild & Sullivan, 2002, p. 2) This quote is of enormous relevance to this research. It illustrates that it is a strong belief in organisations that learning can happen and that past events can be prevented in the future as a result of this learning. Further, to allocate meaning to a trauma, an individual experiencing a violent loss might believe that learning must happen. However, major accidents keep occurring, so Leveson (2011) argues. Further, Leveson (2011) argues that we might not be as good as we want to learn from past events. An

accident investigation is a retrospective analysis which has proved its usage, for instance, in the nuclear industry (Leveson, 2011). Here, unwanted events are analysed in depth, and design changes can be made to the reactor. However, a retrospective analysis might not always work.

Research Question

Having set the scene with the literature review, several questions arise: How do unspoken victims find meaning in their trauma? Can the meaning be found through the aspects proposed in the hypothesis? Can organisations learn, and how does one prove learning has happened? What is justice, and what role does it play?

The questions which I am left with are summed up in the research question below explicitly:

What role can justice, learning and punishment play for an individual attempting to find meaning after losing a loved one in an accident?

Research Design

Introduction

Crotty (1998) argues that it is essential when conducting research in the social sciences that two questions are answered. First, the researcher needs to explain what methodology and methods to be employed in the research, and second, the researcher needs to justify his/her choices. Therefore, the following section will explain the methodology and methods used for this research, focusing on the justification of the choices. Below a visualisation of the methods is provided.

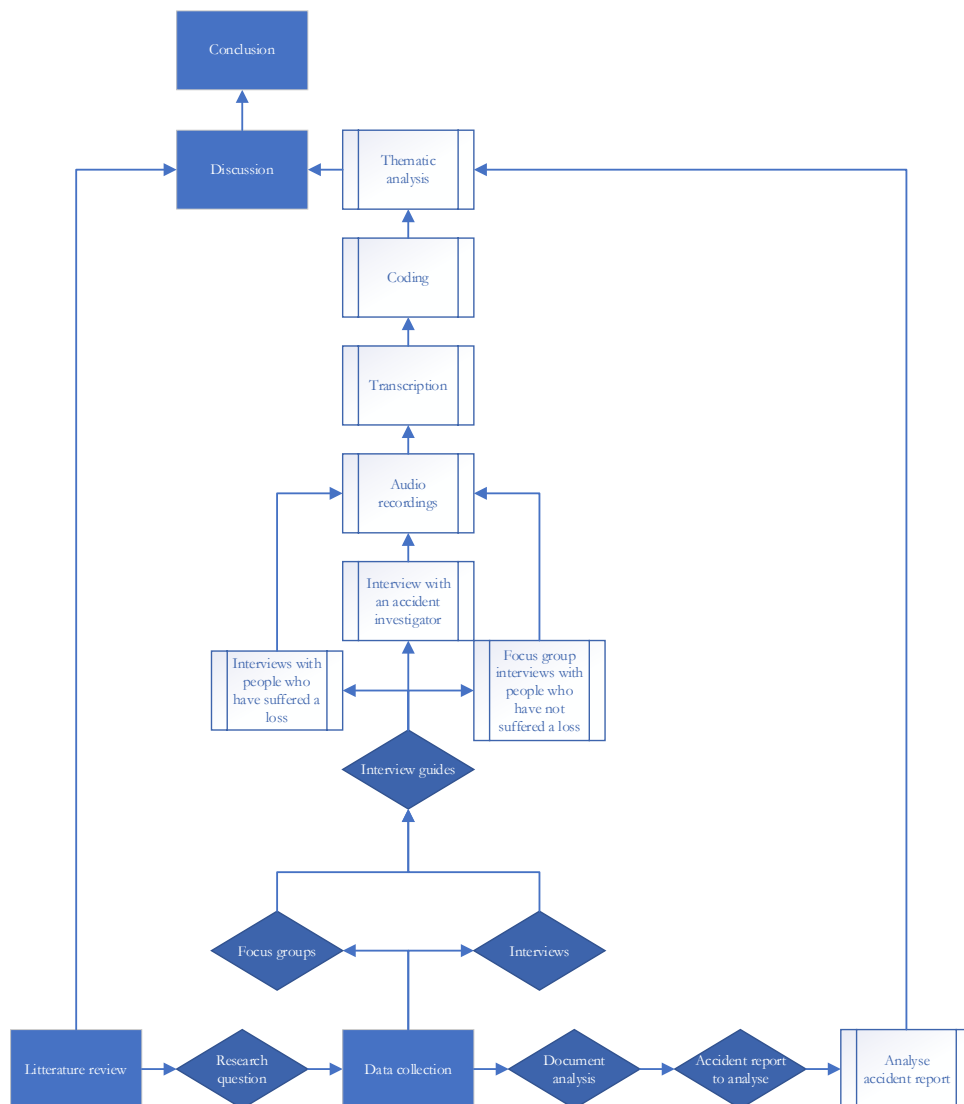


Figure 3 – Visualisation of methods

Methodology and Methods

The research seeks to investigate how meaning can arise in persons, and collectively in society, who have experienced a violent loss through an accident. Thus the aim is to collect qualitative data since this approach helps the researcher come closer to the individual's experience than quantitative research might (Seale et al., 2007). Several qualitative methods will be applied in this research. When various methods are used in research, it is done to verify and validate the data gathered. This is also known as mixed methods or method triangulation (Blaxter et al., 2010, p. 85). For this research, the three research methods will be (1) *Interviews*, (2) *focus group interviews*, and (3) *document analysis*.

Interviews

Lasse, the unspoken victim from the television documentary, who initiated the researcher's interest in the research theme, was approached and asked if he wanted to participate in this research. Unfortunately, he was not interested in being part of this research. Therefore, light on the research question is sought shed through interviews with two other persons who have experienced a loss through an accident. The two interviewees are unspoken victims of the same accident. Around 30 years ago, their relative was killed in a car crash accident. The first interviewee is the researcher's mother-in-law, the sister of the man who got killed in the accident. The other interviewee is his widow.

Another aspect of the research will also be around what is done at present to consult unspoken victims through an accident investigation process. Therefore, an interview has been conducted with an accident investigator also serving as a head of an Accident Investigation Board. The data from this interview will not be used extensively, as it is the unspoken victims who are of interest in this research. However, reflections will be made, based on the data from the

interview with the accident investigator, when reflections can be used to draw a line from the unspoken victim to the accident investigation process and its outcome.

These interviews will take the form of what Ritchie et al. (2013) describe as “in-depth interviews” (p. 182); this kind of interview is described as a form of conversation (Kvale & Brinkmann, 2009). Further, they will be semi-structured interviews; the semi-structured interview style has been chosen because it allows the interviewee to express their own words, reflections, and perspectives generally better than a structured interview (Brinkmann, 2013). The purpose of choosing this interview style is to form a bond between the researcher and the interviewee, to create a ‘safe space’, and to generate a description and interpretation of the interviewee’s social world (Ritchie et al., 2013).

Before the interviews, the researcher prepared an interview guide (table 1). The interview guide was used to loosely structure the interview around the different themes of the hypothesis introduced earlier. The different themes are laid out to the left on the tables for the interview.

Table 1 - Interview guide

Theme	The Question	Sub Questions
Meaning	Is meaning important?	Did you feel a need to find meaning in your loss?
	What is meaning?	How would you define meaning?
	How to find meaning?	How have you found meaning in your loss?
Justice	What is justice?	How do you find justice? When is justice important? What value does justice have?
	How to achieve justice?	Is justice important? Why is justice important?
Learning	What is learning?	How to achieve learning? When do you know whether you have learned?
	When to learn?	When does learning have value?
Punishment	What is punishment?	When does one feel punished?

	When to punish?	When does punishment have value?
Hypothesis	Connection between justice and punishment	How do justice and punishment relate to each other?
	Connection between learning and justice	How do learning from accidents and justice relate to each other?
	Connection between punishment and learning	How do punishment and learning relate to each other?

The interview process would first examine the interviewee's perspective on the three components of the hypothesis without disclosing the hypothesis as a whole. After these three components have been investigated, the interview will move to an investigation of the combination of the components. Lastly, the hypothesis as a whole will be investigated with informants.

Focus Groups

Another aspect of this research is to explore how and what a person who has not experienced a loss in an accident thinks they would find meaning in the trauma. Therefore, it is essential also to gather qualitative data from persons who have not experienced a violent loss. The purpose of the focus groups is to achieve reflections from persons who have not experienced any trauma in particular of losing a close relative. Collecting data from people who have not suffered trauma is of interest for the research to see whether the way people think about meaning changes, depending on whether one has experienced a violent loss or not..

The methodological choice of focus groups for acquiring the perspective of those who have not lost a loved one in an accident is that opinions can be formed and expressed when the participants interact (Blaxter et al., 2010, p. 196). Further, as Ritchie et al. (2013) argue:

Group discussions (or focus groups – we use the terms interchangeably) offer less opportunity for the detailed genera of individual accounts. They (group discussions) are used where the group process – the interaction between parts – will itself illuminate the research issue. Group interactions involve discussion and hearing from others, and give parts more opportunity to refine what they have to say. (p. 56)

Two focus groups were asked to discuss the themes of the hypothesis, and the idea was that the focus group would go through the same questions as the interviewees. The participants for the focus groups were students from the academy where the researcher works for the convenience. The demographics of the participants will be presented in the beginning of the thematic analysis (table 3)

The researcher would mostly be present to facilitate the discussion among the participants and ensure that the essential themes were covered. However, when the talk drifted to what was considered insignificant, the researcher could intervene to bring the talk back around the themes.

The exact facilitation method was based on what Ritchie et al. (2013) describe as the five stages of a focus group (p. 217-222). The five stages are (1) *Scene-setting and ground rules*, (2) *Individual introductions*, (3) *The opening topic*, (4) *Discussion*, and (5) *ending the discussion*.

Table 2- Stages of a focus group - Based on Ritchie et al. (2013)

Stage	Focus	Notes
1 – Scene setting and ground rules	Get all participants to understand the reason why they are there. Get all participants to feel welcome.	A short introduction to the research Get the participants to become curious
2 – Individual introductions	Identify all participants.	Each participant introduce themselves

	Get all participants to speak in the group	
3 – The opening topic	A general neutral opener	
4 - Discussion	As the guide below	
5 – Ending the discussion	Let all, who wish, have a last remark.	Signal 10 min. before end time

Document Analysis

Documents are a broad category (Tight, 2019). The process of the document analysis will be what Gibson and Brown (2009) call “analytically focused” and primary documents. For this research, the analysed documents will be the accident investigation report from the train accident on the Great Belt Bridge, which was the starting point for the researcher’s interest in the research theme here. Different accident investigations concerning the same accident may have different findings. For instance, in the Texas City refinery accident, different boards investigated the accident, discovering different findings (Baker et al., 2007; CSB, 2007; Mogford, 2005). The document analysis will explore how the aspects of the hypothesis might be covered in an accident investigation report. The focus will be that unspoken victims will often have nothing else than the investigation report to answer the questions they are left with.

Theoretic Perspective

Based on the presentation of this research’s methodology and methods, the next logical part is to present the theoretical perspective (Crotty, 1998). The researcher needs to explain how context will be provided for the information gathered through the research (Crotty, 1998, p. 7). This researcher believes that people create their reality through interactions with the world. This research might seek to clarify the research subject’s reality, but a complete understanding will never be possible. As described earlier, the goal of this research is not to understand the world as a

whole. Instead, the theoretical perspective adopted for this research is similar to the one of postmodernism (Blaxter et al., 2010). The postmodern paradigm for understanding the social world is one where the researcher believes that the time for big narratives and theories are over: “Postmodern approaches do not offer a view of rational progression to a better world.” (Blaxter et al., 2010, p. 62) Instead, the research will focus on narratives that fit a specific, delimited and local problem (Flick, 2014, p. 58). Through the series of interviews, it is believed that a relationship of trust will be built between the researcher and the interviewee; this is of utmost importance to ensure that the interviewee will talk openly. Further, the hypothesis proposed earlier will also act as a theoretical perspective. The research will primarily be done through the “lens” of this hypothesis.

Epistemology

Lastly, the research’s epistemology must be described; “Epistemology is concerned with ways of knowing and learning about the world and focuses on issues such as how we can learn about reality and what forms the basis of our knowledge.” (Ritchie et al., 2013, p. 6)

Crotty (1998) describes three different epistemologies: (1) *Subjectivism*, (2) *constructivism*, and (3) *objectivism*. The research seeks to understand the perspective of single persons who have experienced a violent loss, and this perspective might prove useful more broadly. For the purpose of this research, it is believed that there is no objective truth that waits for us to discover it; “the truth” happens in the connection and interaction between individuals. What this research will conclude in the end is not necessarily transferable to other individuals. This is as close to the truth (for the interviewee) as possible, given the factors such as time, space, and relationship available to the researcher.

The truth will only exist in the understandings of the individual person, reader or researcher. It is not believed that what makes sense to the interviewee can be presented 100 % accurately; however, efforts are made to be as precise and truthful as possible. A part of this is to present all data originating from the interviews to the interviewees, giving them a chance to clarify representations and interpretations made by the researcher. In doing so, the interviewee's truth will be presented as truthfully as possible..

The Analytic Perspective

A thematic analysis framework (Ritchie et al., 2013, p. 271) will be adopted for this research. Doing a thematic analysis involves interpreting and discovering patterns in the data. It also involves working systematically through the data. Then identifying themes and topics over the course of the research. Braun and Clarke (2006) describe six phases of the thematic analysis process. Through these six phases, the researcher will analyse the data centred around specific themes, in this case, the hypothesis proposed: finding meaning through justice, learning and punishment. When using thematic analysis, the researcher should, of course, be aware of the model's advantages and disadvantages. Braun and Clarke (2006) list numerous advantages of this approach; for this research, the key advantages are flexibility, ease of learning, it can highlight similarities and differences across the data set, and it can generate unanticipated insights (p. 97)

The interviews and focus groups will all be audio-recorded. The purpose of the focus groups is to achieve reflections from persons who have not experienced any trauma of losing a close relative. The sessions will be transcribed, analysed, and coded as were the interviews. The coding will be the same as the interviews to make cross reflections possible between the two data sources. The documents will be analysed in the same way as the interviews and focus group

sessions. Doing the same coding ensures some reliability in the methods (Gibson & Brown, 2009).

Similar to the six themes proposed by Braun and Clarke (2006), Ritchie et al. (2013) describe five key steps in data management for thematic analysis. First, the researcher will have to get familiarised with the data. Here, the researcher must immerse himself in the data to understand the applicable content and identify topics and subjects. Secondly, the initial thematic framework must be established. In this step, the researcher will sort the topics and subjects discovered into themes and sub-themes. The themes can be emergent or derived from the research question. Thirdly the researcher will index and sort the themes. The data will be annotated and labelled according to earlier developed thematic framework. For this research, the thematic framework will be closely related to the themes identified for the interviews and focus groups, which is a central part of the question guide for the semi-structured interviews. Fourth, the researcher will review the data extracts. In this process, the researcher will re-visit the data to look for different patterns and perhaps find other ways of organizing the data, which might result in more coherent groupings. Lastly, the researcher will summarise the data. This process is about identifying the same and difference of what all the people are saying about a particular theme. These summaries can then be put into a matrix with the themes and the persons for a better overview.

Research Ethics

Consulting Lund University's research ethics guideline (<https://www.researchethics.lu.se/>), it becomes clear that this research is not obligated to go through an ethics review. However, this does not change the fact that good research ethics need to be adhered to in this research, Ritchie

et al. (2013) list several critical aspects of ethical research. First, the research needs to be worthwhile and not make unreasonable demands on participants. The next step is that participation needs to be based on informed content; this means that the participants:

- need to know the purpose and aim of the research,
- that participation is voluntary and can be withdrawn at any point,
- what the participation is going to involve, and
- how the acquired data will be kept confidential and anonymised.

The informants were presented for the research in connection with invitations to their interview or focus group session. An essential aspect of research ethics is not to physically and mentally harm participants; this is important in this research since the interviewees were people who have lived through a highly traumatic experience. There was a possibility that the interviews would tear up old wounds, had this happened, the researcher was ready to break off the interview, removing the 'pressure' from the interviewee, and the interviewee would be offered to withdraw their consent. Luckily this did not happen during the interview sessions.

The interviewees and focus group participants were all given their rights before the sessions started, where the researcher received an oral acceptance. Further an informed consent form was signed by all informants. A blank copy of the consent form can be found in appendix 2.

Results and Analysis

The Reasoning for This Research

This section will present the data gathered through the research. Further, the data will be analysed here. The hypothesis of the trinity proposed was formed through an inductive approach, emerging from a natural thought process that formed the interest in the research theme, and the analysis will be based on this hypothesis. Therefore, the reasoning and thus the findings will be abductive more than inductive or deductive.

This section will start off by analysing the accident investigation report made by the Accident Investigation Board (AIB) in Denmark. This analysis aims to establish how and why the AIB investigated the accident. Further, the analysis will take the view of a hypothetical unspoken victim, reading the report. What conclusions could an unspoken victim draw when reading the report, and does the report help an unspoken victim in the search for meaning?

Next follows a thematic analysis of the data gathered through the focus groups and interviews. The data will be presented in a manner similar to the literature review, with three main themes: Justice, Learning and Punishment.

Analysis of the Accident Investigation Report

The Aim of an Investigation Made by AIB

This section will analyse the accident investigation report regarding the train crash on the Great Belt bridge. The report is published by AIB; on their website, they describe their role in relation to society as follows:

The Danish Accident Investigation Board (AIB) (in Danish - Havarikommissionen for Civil Luftfart og Jernbane) is an independent safety investigation authority.

The fundamental purpose of the AIB is to investigate accidents and incidents involving civilian aircraft and railway operations in order to prevent reoccurrences.

A safety investigation means a process conducted by a safety investigation authority for the purpose of accident and incident prevention, which includes the gathering and analysis of information, the drawing of conclusions, including the determination of cause(s) and/or contributing factors and, when appropriate, the making of safety recommendations. By determining circumstances and causes and making recommendations, the AIB contributes to an increased safety. The purpose of safety investigations is not to apportion blame or liability (*The AIB task, 2022*).

Several aspects of their own description of their task are interesting for this research. Firstly, they describe the purpose of an accident investigation as preventing accidents and incidents. This purpose can be understood as learning for prevention, and through this, AIB will contribute to an increase in safety. Second, they highlight in the end that the purpose is not to appoint blame or liability.

The analysis of the train accident will be based on the English summary (appendix 1), with the analysis, conclusions and safety recommendations (AIB, 2020), translated from the more extensive investigation report in Danish. The researcher has checked all translations, comparing the English and Danish versions in order to ensure validity.

The Report

First of all, as established by the AIB, the original report clearly states that: "The investigation alone serves to increase the railway safety, the investigation will not aim at placing blame or liability." (p. 2) Multiple investigations will be held when an accident gets much public attention, such as with the Great Belt bridge accident. First of all, the official accident investigation by the AIB will be conducted. Further, the police will conduct their own criminal investigation. Lastly, DSB and DB will likely initiate their own investigations. It is vital to distinguish these investigations from each other since the aim is different. While the AIB have a precise aim of promoting railway safety, the police will aim at criminal aspects of an accident and whether someone should be prosecuted.

The report starts with a summary of the accident, what happened and when. Very early on, the report states:

The semi-trailer's kingpin was not locked on to the saddle of the freight wagon. The fresh gale that blew across the West Bridge when the freight train passed was therefore able to blow the empty semi-trailer out of its position in the pocket wagon. The semi-trailer was then dragged alongside the wagon until the place of collision (p. 1).

The semi-trailer was blown off the freight wagon, causing it to drag into the opposite lane of the railway. So right away, the report tells the reader what the primary determining factor for the accident itself was. Multiple aspects of this quote play a significant role in the rest of the report and in the TV documentary on Danish Broadcast Corporation, where Lasse is portrayed as seeking out meaning in his loss. First of all, mentioning the "kingpin" and, secondly, the fact

that it was not locked in the saddle. The report then goes on to tell that checks of the freight wagon upon loading were done:

The investigations have shown that G 9233 was loaded at the combination terminal in Høje Tåstrup on December 28th 2018 and on January 2nd 2019 and that the train was inspected – including loading and securing of the trailer in question – independently by several staff members (p. 1)

So the freight train (G 9233) was loaded and, more interestingly, checked by "several staff members". From this, we see a clear indication of the report's aim. This helps the reader understand that checks have been made before sending the freight train onto the railway. So therefore, the reader might already start here to conclude that it is not the personnel loading the freight wagon who had done something wrong. Further, from this, we can conclude that some protective measures were in place (checks) and that these were done too.

However, following this section, the report states that:

The investigations have established that it is not possible to check with certainty that the locks on this type of saddle have been correctly locked and that in some cases the locks on this kind of pocket wagons in service between Høje Tåstrup and Fredericia have not been locked. (p. 1)

Wait a minute. The report has just stated that checks were done prior to the travel. Now the report sows the seed of doubt. The freight train was checked, but it might not be possible to check with certainty that the semi-trailer's kingpin was actually locked in the saddle, as two other saddles on the accident train were also discovered to be unlocked. Further, the report states that

investigations into other freight trains showed that saddles on these freight trains were also not locked.

So in the conclusion part of the summary, the AIB states that:

Based on the investigations, it is concluded that it is highly probable that the semi-trailer was loaded correctly with the kingpin placed in the saddle, but that the lock that was to secure the semi-trailer to the pocket wagon was not working correctly, meaning that the semi-trailer was thus not locked on to the pocket wagon. (p. 2)

AIB have then concluded that the primary factor which played a role in the accident was a technical fault. Nevertheless, this can leave unspoken victims with many unanswered questions, such as how can we then trust the technology? Alternatively, even leave them with questions such as who can we then point the blame at? However, if we dive deeper into the AIB conclusion section, we can obtain a better understanding, from the accident board's point of view at least, of the factors leading to the accident itself:

Based on the investigations carried out, it is the assessment of the Accident Investigation Board that the only likely scenario is that the semi-trailer was loaded with the kingpin in the saddle, but that the saddle was not locked before the accident. (p. 10)

So not only is the fact that the semi-trailer was in the correct place "highly probable", but AIB concludes that it is the only likely scenario. This means of course, the saddle was not locked properly. The AIB states further:

It is the opinion of the Accident Investigation Board that the unlocked locking mechanism was the reason the empty and thus relatively light semi-trailer could be blown from its place... (p. 10)

This might still leave the unspoken victims with questions because the idea is that the AIB should play a role in increasing railway safety, so learning must happen. Following this reasoning and the AIB's aim of the investigation, the report tries to suggest what factors led to the accident and what to do in order to prevent similar accidents:

The Accident Investigation Board finds that the following factors (see below) had or could have had an impact on the inadequate locking of this as well as other similar saddles where investigations have established that they did not lock correctly (p. 10)

Following this, 11 points are made by the AIB, regarding the factors which "...had or could have had an impact...". The following will analyse some of the points made by the AIB.

Factors Which "...had or could have had an impact..."

The following section will present and analyse five of the points made by AIB. These factors had, or could have had, an influence on the accident itself. The basis of the choice of these five was their immediate impact on the accident, as seen from the lens of an unspoken victim. The analysis will focus on what can be understood from these factors, especially with regard to learning. Further, the analysis will provide a perspective on how they can be understood or misunderstood in the sense of placing responsibility.

The first point to analyse is:

All editions of the saddle manufacturer's manual identified lubrication of the saddle as safety-critical, but this knowledge was not identified by the operator's safety management system and was not part of the scheduled maintenance of the saddle. (p. 10)

Here we can read that the AIB found a flaw in the safety management system run by the operator. What is interesting here is the wording "all editions...". This means for the reader that it had been a consistent point of attention by the manufacturer of the saddle, but this point had been missed by the operator. This could be interpreted in a way that may lead the unspoken victim to the conclusion that the operator missed an important point. Further, this point is followed up by this:

The maintenance of saddles was generally characterised by shortcomings. (p. 10)

Regarding the checking of the saddle before loading, AIB makes 3 points:

The manual of the saddle manufacturer described that the saddle was locked when the lever was pulled back fully and the cutout on the control lever was not visible. The Accident Investigation Board's investigations have shown that the saddle could be unlocked even when the control lever was pushed in and the cutout was not visible. It was not possible to verify visually that the lever was fully pulled back. (p. 10)

At the time of the accident, the operator's loading instructions did not include any functional check of the saddle before loading, which was not a requirement. (p. 10)

The operator's checking of the saddle being locked when a semi-trailer was loaded was based on the manufacturer's manual. This check based on the manufacturer's manual was not sufficient to ensure that the saddle was locked. (p. 10)

Again here we see a shift in focus. The focus is not on the personnel loading the wagons or the operator itself. The focus is on the guidelines and especially the manufacturer's guidelines. However, blame is not apportioned here. It may be that the operator acted according to the manufacturer's guidelines, but the fact that the guidelines were not sufficient is knowledge obtained only in hindsight.

To sum up on this section, the accident report from the AIB regarding the train crash on the Great Belt Bridge has been analysed. This is done in a way where statements from the report itself are analysed as to how they may be perceived by an unspoken victim reading the report. As established in the literature review, we all have an intended or unintended agenda when trying to make sense of a trauma. With this in mind, the AIB remains loyal to their aim of the investigation, not to blame or appoint liability. However, a question remains: what value or meaning can such an accident investigation then bring to the unspoken victims? This question will be delved into in the next section, the thematic analysis of the focus group interviews and interviews with unspoken victims.

Thematic Analysis

Moving from the analysis of a specific accident investigation report, the following section will present and analyse primary data collected by the researcher. This data originates from the focus group sessions and the interviews conducted. The focus groups participant were all people who had not experienced losing a close relative in a violent matter. In contrast, both interviewees

1 and 2 had experienced losing a close relative violently, namely the brother and husband of the respective interviewee, while interviewee 3 represented the view of a formal investigation body.

See table below

Table 3 - Participants

Data source	Information on source	Identification through the analysis
Interviewee 1	55-year-old female. Lost her brother in a car crash in 1994. Sister-in-law to interviewee 2	Interviewee A
Interviewee 2	67-year-old female. Lost her husband in a car crash in 1994. Sister-in-law to interviewee 1	Interviewee B
Interviewee 3	Accident investigator, also serving as the Head an accident investigation board	Interviewee C
Focus group 1	Consisted of five people. Four males and one female. None have lost a close relative in an accident	Depending on the participant: A, B, C, D, E FG1
Focus group 2	Consisted of four people. Three males and one female. None have lost a close relative in an accident.	Depending on the participant: A, B, C, D, FG2

The presentation of the results will be divided into the same themes as in the literature review; this is done in order to keep the research findings outlined consistently here. These themes originate from the hypothesis, and the coding was done accordingly:

1. Justice
2. Learning
3. Punishment
4. Connection Between Justice and Learning
5. Connection Between Punishment and Justice
6. Connection Between Punishment and Learning
7. Meaning
8. The hypothesis

Justice

The first part of the hypothesis is justice; the suggestion is that families need to discover a sense of justice in their loss. So a definition of justice is essential to establish. Throughout the focus group interviews, the discussion was tense when trying to establish a common understanding of the word justice. However, one thing they all agree on is that justice boils down to a subjective feeling.

It is probably up to the individual what they think is just (C, FG2)

It is a feeling (A, FG2)

It will always be a feeling; it will always be subjective; what one feels is just (C, FG2)

However, one thing that emerged from the data was the idea that we as human beings need “to take a stance” on what justice is to us. We need to have established a common ground for the justification of actions. So to judge whether we feel an action is just or unjust, we need something to compare with:

You can say whether it is fair that one gets a piece of candy and the other gets two pieces. And it is a sibling couple. In that sense, you could say it is damn unfair, that is. You must then have two pieces each or only one piece. [...] So that way, you can measure and weigh justice. (Interviewee B)

But the thing about justice is that it is how you compare with others and see their situation, and then you can feel either justice because, even though we are not in the same situation, we can compare and we get about the same thing, or not. (D, FG2)

As a community or society, we have our own way of evaluating whether something is just or unjust. The evaluation is based on understanding the community or society and, to a high degree, the history and culture of the community or society. The difference in evaluation became clear whenever the question of justice or injustice was debated; the debate also turned towards punishment. A punishment needs to be just or unjust based on how the act is perceived. However, punishment will be dealt with more later in this section. For now, let us focus on how we create a feeling of justice, and not least, the difference in justice community by community:

But justice is also difficult because that is your common notion. Both with clear lines in the form of a legal system and a culture where justice in Denmark is something other than justice in the United States, Saudi Arabia, or China. So that is our idea, but I think

justice is especially true and important when someone does something they know is not consistent with the common concept of justice for their own gain. (D, FG1)

Whenever the participants debated the question of what justice is, the debate turned towards the issue of accountability. They all agreed that justice has a clear connection with accountability for one's actions.

So it is about being accountable for the actions that you have done and are doing.

(Interviewee A)

With justice, I understand that as what you agree on is right and wrong. You go through things and find out someone has not done as they should, and if there is, then you want someone to have a consequence of it. (Interviewee A)

So it is about being accountable for the actions that you have done and are doing.

(Interviewee A)

Then there has to be some justice, well, you either have to make up for it, or you do not have to be punished, so to speak, but it should at least be some kind of justice to those it affects. (C, FG1)

Importance of Justice. After having talked about what justice is, the conversations turned towards what role justice has in society, namely the importance of feeling justice has been served or not. It became clear that justice serves as a form of social control, meaning that the feeling of justice guides us about right and wrong.

I think that justice is especially important when someone does something well-knowing, which is not in accordance with the common understanding of right or wrong, for their own gain. (Interviewee B)

Researcher: Is justice important?

C: Yes, very much.

Researcher: Why? Or how?

C: It is all about being accountable for one's actions. It does not matter what it is; it can be in the local grocery store if you have a responsibility and do not live up to it. Then you need justice, you can either make up for it, or you can get punished. There needs to be some sort of justice towards those who suffer. (FG1)

Another aspect of the matter is the fact that people rely on the justice system, the courts and the fact that people are held responsible for their actions.

...if let us say I had lost a close relative, then this would result in grief and the feeling that me and him (the lost one) had been treated unjustly. Then I would have faith in the rule of law and the feeling of justice. You want to live in a country where you can be certain that everybody is treated just. (B, FG2)

Turning Injustice into Justice.

The next section presents the idea of how one can turn something unjust into something just. Interestingly, in the end, it seems to depend on one's definition of punishment. It can be in the form of a ruling by the court or by simply admitting one's fault:

When you talk about justice, it is often in connection with the fact that something criminal has been committed or there are some who have not followed the usual moral code. If you have lost a child, lost someone who was important to you in connection with something criminal, justice is served the moment the killer has been sentenced. Then I think you as a relative will feel that now justice has been done for what he has done.... now it has kind of been put on record that this person has done something to you and yours, and now they have been convicted and then justice has been done. (Interviewee A)

Sometimes I think that if you have made the wrong decision, you are like so big a person that you reverse that decision and tell why you made this decision. (Interviewee A)

I think there are different levels of it, and it is the individual who assesses whether they feel that justice has been done. Also, in terms of what kind of misdeed we are talking about, what kind of punishment we are talking about. (Interviewee A)

When asked about whether you can, as an individual, turn something unjust into something just, one of the interviewees answered:

You might say that if someone has done something to you and apologises and asks for forgiveness, then it is a way to move forward. More than that might be justice.

(Interviewee B)

Drawing on this, the fact that the person needs to feel sorry and wants to be forgiven seems, to these informants, not to be enough. What is needed as well is that the apology take some public form as well.

But before you kind of has that, um, you can come over and say one-on-one, ah sorry I did that, but it means less than if it kind of becomes known to more people that sorry has been said. (B, FG1)

As described earlier in this section, justice is also affiliated with accountability and learning. If a person or organisation refuses to learn or refuses to admit their accountability, this seems to have an effect on the sense of justice. There needs to be some form of remorse in the person or organisation. When the focus groups were asked what they thought Lasse meant with his statement "...not revenge, but justice", an interesting point came up:

With justice, I think that what he means is that those responsible must be held accountable and that there must be learning. Those semi-trailers must be fastened. And that you kind of follows up on it, later in the documentary, you find out that they have known that for a long time. (B, FG1)

Learning

Having presented and analysed the data collected regarding justice, we now need to move on to another part of the hypothesis: learning. It is already established that justice and learning have some sort of connection in the aftermath of an accident. A question connected to learning is when you do, as a person or organisation, know that you have learned something from an accident.

I think you know that you have learned something when you ... life is a repetition of different situations, and I think you know you have learned something when you get better and better at dealing with a situation at hand. (Interviewee A)

Another question is what learning actually is and how people define learning. Intriguingly it can be summed up here to the fact that learning is a motivation for desired actions and behaviours:

You promote the desired behaviour and encourage one to continue doing it in some specific way. (B, FG1)

Learning might act as a deterrent. (A, FG2)

There exists a clear understanding among these informants that learning needs to take place at all times. Life consists of, more or less, nothing but learning. Nevertheless, it becomes clear that regarding accidents, learning is extra essential. However, it is not always to make certain that learning happens then:

So if you run a red light and drive another person to death, I do not think you will actually learn much from it because you know in advance that you should not run a red light. (Interviewee A)

However, in order to find meaning in trauma, learning plays a part. Nevertheless, it is not only a person or organisation that learns from an accident. The legislature and executive parts of society can also learn based on accidents:

Legislators and the administration in Denmark can also learn something from this (accidents) in relation to which areas they should pay more attention to, perhaps, the legislative area, fatigue or other things. We should perhaps act and tighten some rules or loosen some rules. Inspectors in port state control can also learn something from it; okay,

we need to act in this area. Now we can see a lot of accidents, let us have a focus on it in the next year at inspections. (B, FG1)

After an accident, learning should take place, and learning is often associated with prevention. The crucial part of learning is to ensure that a similar accident will not happen again. As established earlier in the literature review, it can, however, be challenging to know whether or what one has learned. However, it seems that a consensus here exists on the notion that an outcome of an accident and the investigation process needs to be prevention:

(After an accident) ...you will also have to do an investigation and tell the person who messed up: "you messed up". Because it should not happen again. (Interviewee A)

I also think that it is valuable if you can learn something from the accident report so as to ensure that it does not happen again. (A, FG2)

After an accident we gain learning. We achieve to find a way to avoid this accident from happening again. (C, FG2)

Punishment

Remarkably, when the participants discussed justice and learning, they each time turned, in some way or another, the conversation towards punishment. It is a crucial part of the hypothesis that punishment correlates with justice and learning as a form of prevention and, ultimately then, obtaining meaning from a violent loss. When discussing punishment, it became clear that you can divide it into two main categories or forms of punishment. One form of punishment is the official part, being convicted: sentenced or fined. However, another form of punishment takes some social form, which is not ruled by a court but by an atmosphere or attitude in public:

One is that there is a legal judgment, but there is also very much a court of the public's opinion. (E, FG1)

It (punishment) does not have to be juristic, that is, for it to be a punishment. (D, FG2)

Then there is both a punishment in losing customers because you get bad publicity because you keep killing your employees, but there is also a punishment you can get by going to jail or getting fined. (E, FG1)

Basically, what this means is that a person or organisation might not be convicted by the court, but can be convicted in the court of public opinion. People are known to boycott organisations based on unethical decisions made by the organisation, e.g. boycotting Amazon due to their tax avoidance and denying workers rights or boycotting Russia and Russian products based on their invasion of Ukraine. However, what matters regarding whether a punishment is seen as such is the feeling of being punished:

Punishment must be unpleasant, that is, so it can be in many ways. For example, it is not a punishment if you send someone to a "rich man's prison". It is still imprisonment, but I do not think it is a real punishment. (B, FG2)

After all, it is the feeling that you feel punished, then you have a punishment. (C, FG2)

Further, it becomes clear from the data that punishment can take the form of prevention; what matters is that sometimes one's actions and behaviours need to be seen as having consequences.

Some things must have a consequence, and some things have already had a consequence; you just forgot about them. (Interviewee A)

But if you kill a person, it has a consequence, with a prison sentence here in our part of the world. If you steal, then it also has a consequence. (Interviewee A)

You have to be aware that if you do some things that you should not have done. And it can be at all levels; our actions have a consequence, always. (Interviewee A)

A punishment is that the person who has done something will feel it in some way that that person has done something wrong. And it can be in any way. (Interviewee B)

Guiding people between right or wrong is, however, a balancing act since the moral and ethical boundaries can differ from person to person, group to group:

...I come directly from Singapore, where they think tobacco and chewing gum are some of the worst. ... There you have a different idea of what should be punished and how justice should be done. (E, FG1)

Society has set up its own moral and ethical boundaries, which we as a population must take into account, whether it fits our world or not. Society has established a set of rules based on these boundaries, and the need for punishment increases depending on the mishap outside of these boundaries. At the same time, punishment forms a control and a preventive measure. We are telling the outside world that these actions have consequences, and one should not act or behave in this way.

I think it is a form of socialisation; it is a way of telling people how to behave. And, of course, it is also to show, out in society, that when you do something wrong, you get punished. And it should make others think. And do not do the same. (Interviewee B)

I also think it is a mixture of getting some learning into it and punishing the right people so that it does not happen again. The punishment should not just be punishment for the punishment's sake, but you must make sure that it does not happen again. (E, FG1)

Connection Between Justice and Learning

Moving from the themes of the hypothesis as individual topics, the discussions turned towards connecting the themes of the hypothesis. This is done to investigate whether a connection can be drawn between the individual themes.

It seems like you can find justice through learning, specifically in the way that an individual might not directly benefit from telling their story, but anyway, some people choose tell their story:

We also talked about one of the topics that are very popular right now, that being when women or other mistreated persons come into the media, they do not get a damn thing out of coming forward and telling their story. But they do it with the focus that if others can learn from it, then there is more justice present. (E, FG1)

Further, it seems that a sincere apology can be interpreted as an indication of learning with an individual. If this is the case, such an apology indicates the fact that learning has happened, so it seems for these informants there is a clear connection between learning and justice:

So, justice is that they come and say sorry, and they learn some lessons from it. (C, FG1)

Learning is considered by these informants an essential part of the aftermath of an accident, and further, to find justice in a loss through learning. The fact that individuals and organisations are “allowed to” learn from an unwanted incident is considered an important aspect of the accident process:

In relation to this issue of accident investigation reports, I think it also applies in relation to, for example, crime, that those who commit that crime or cause accidents should have the opportunity to learn something from what they have done. (A, FG2)

I think it can have a big impact, at least for the families. Is it not often you hear that if it will not happen to others another time, then it is a kind of justice? -That you feel justice if you learn something from it? (D, FG2)

If we think about the Estonia accident¹, then justice is that a full and impartial investigation of the shipwreck happens ... To see if we can learn something. If that justice does not happen, we really cannot learn something because then there will not be an investigation. In this way, you could say that they are connected. (B, FG2)

Connection Between Punishment and Justice

As discussed earlier, it often happened that the interviewees and focus groups themselves turned towards punishment, especially when discussing the theme of justice. They often brought the issue of punishment themselves without the researcher even had introduced punishment as a theme. So, at first glance, it may seem obvious that a connection is present between the two

¹ MS Estonia sank in the Baltic Sea in 1994, resulting in the death of 852 people.

themes of the hypothesis. However, when asked directly about the connection between the two themes, the answers were not as straightforward as one might think.

First of all, what mattered to the one interviewee, who lost her husband, was the fact that the truck driver showed regret and reacted even physically by fainting. Showing regret by the individual seems like a more suitable connection than any abstract forms of justice:

I think what mattered to me was that he was so upset. He had reacted by fainting, and he was very human; he was very young. And he asked us, through the police, for forgiveness, and I did not have a hard time saying that at the time: Yes, that is the risk you take when you get in your car and share a lane with other people. You can know how you act and drive and all that, but you cannot know how others do. (Interviewee B)

Do you mean that the greater punishment, the greater justice or what? -I do not know if I think I do. So, I think I can experience great justice by getting a sincere apology. If there has been a chief mate who has yelled and scolded me for something I do not think I have done wrong, and he comes over after dinner and says you know what? I apologize; it was not cool. I experience a great deal of justice there, and it is a small punishment to say sorry. (B, FG1)

So, what a punishment is and more interestingly experienced is often more complex than one might think. Regret might originate from punishment. The individual can punish (atone) him-/herself by regretting an action. So, in these cases, punishment is in the form of individual mental punishment. However, when punishment acts as placing blame, it seems that a connection does exist between finding justice through blame and/or punishment:

I think it is probably because there is a sense of justice, a sense that if someone is to blame for this accident that has happened, we can get justice by going through the justice system. (D, FG2)

That is because you are trying to give a punishment that fits legally, but you are never going to cover it emotionally. (A, FG2)

We can also try to turn this issue around; can an individual find justice if no one or nothing is being punished for the loss? In fact, it seems that if an individual or organisation acts in an undesired way and the public has a feeling that the act was done in negligence or even had the impression that it was, justice cannot be found without punishment:

Also, just the fact that something is being done, that there is some kind of punishment, helps. Because if someone has caused an accident and they go free, then everyone agrees that it is unfair. But how big the penalty should be is very difficult to agree on, but the fact that something happens, I would say, is fair. (B, FG2)

Lastly, it seems that punishment can serve as a thought-provoking aspect of compensating for what people have lost. Often when people have lost something or have something taken away from them, the search for meaning starts. However, what if you cannot compensate an individual in any significant way for their loss? Then punishment is essential:

Yes, you can say that the punishment should be like what gives justice; if you cannot give people what they have lost, then you must compensate with a punishment for the perpetrator. (A, FG2)

Connection Between Punishment and Learning

The last of the connections to be analysed is the connection between punishment and learning. Earlier, it was found that both punishment and learning as individual themes can also indicate a form of prevention. So, when asked directly about the connection between punishment and learning, the issue that also came up was prevention. The punishment, or the fear of punishment, can therefore serve as an incitement for learning:

So, the punishment can make the person or the organisation or whatever we are talking about – think, "I probably will not do that again". (Interviewee A)

Yes, there probably is (a connection between punishment and learning) in general. That is, that people if they keep parking illegally and they get one fine after another. In the end, they probably learn when the wallet is empty. So, in that sense, yes, there is a connection between the punishment you get meted out financially perhaps, and learning. (Interviewee B)

There is (when punished) some incentive to learn (B, FG1)

The incentive for learning then can cause a change in behaviour. Often this change happens when society, locally or even globally, comes together to agree on certain things about an accident. For instance, we see international legislation which serves the greater good. Punishment seems to be very much connected to learning:

...we only do something about it when it becomes a criminal offence. If you look at the ozone hole and fluorinated substances and things like that, something only happened when it became illegal, and then it disappeared. Then the ozone hole was closed like that,

so it is not a problem anymore because you have found some other refrigerants that work fine. But until we collectively say, "No, it is illegal to do; there is a penalty", then I do not think anything happens. (B, FG1)

However, not all agreed on this point. One participant objected to this statement above. However, interestingly this participant agreed that punishment is a powerful means to create learning or follow past learning:

I do not agree with what you (B, FG1) are saying that it is only through punishment or legislation that you do something about it, but it is just a powerful measure. (D, FG1)

I think when we talk about something like this, I think if the perpetrator can put himself in your place, find out, okay, now you have killed my children, now you need to know how I feel. You can only give that by giving a punishment. Then, I think you get a better sense of justice. (A, FG2)

There also exists a connection between punishment and learning when seeking prevention. After an accident, learning relates to prevention, and punishment relates to incentives to change behaviour. This together led to the idea that both parts (punishment and learning) act as a powerful preventive method:

I also think it is a mixture of getting some learning into it and punishing the right people so that it does not happen again. (E, FG1)

Meaning

The search for the meaning in relation to a violent loss can be a very individual process. It appears that meaning, if only many years after, can emerge in many ways. One of the interviewees expressed that it was merely time, which was the factor that brought meaning:

I think it was time (which created meaning). Time does not heal all wounds when talking about this, but gradually the grief disappears, but the loss remains. (Interviewee A)

The interviewee who lost her husband in the accident expressed that in the time immediately after the accident, many questions were left unanswered, especially since it was never clear exactly how the accident happened. So, finding meaning in the loss immediately after the accident can happen if the unspoken victims are not left with some crucial questions unanswered about what had happened:

...we needed to understand what had happened and how it had happened. We actually needed to know that. We could not get that, and it made a movie run in my head, with different scenarios that I could not let go of until a really long time had passed.

(Interviewee B)

The aspect of unspoken victims knowing what happened to their loved ones is also an aspect that the accident investigation board recognises. Even more, the accidents are sometimes of a kind where society also has an interest in the investigation.

...society needs clarification of when there has been an accident where there are fatalities or major material damage, then society needs a clarification of what happened. So, they need an epistemic clarification, what happened that day? There, society needs an

authoritarian narrative, or authoritative narrative about what happened – so that we all speak from the same frame of reference. (Interviewee C)

The need from the unspoken victim and society for answers is partly why the accident investigation board exists, to be the authoritative body which can help to explain what happened, thus creating meaning. The focus groups had different perspectives on finding meaning. The first perspective which they thought was important in order of finding meaning is the learning part of an accident. The fact that if they had lost a loved one, then the loss would not have been in vain:

I would get more out of knowing that someone was learning something somewhere than that someone was being punished. Because it will be a single person (who gets punished), that is, it may not matter. But many people may be saved or have a safer flight in the future because I lost my mother. I would feel better; it would mean more to me. (B, FG1)

Ultimately, finding meaning is also equal to finding rest in the trauma which one has experienced. Interestingly (and perfect suiting for moving on to looking at the hypothesis as a whole), one participant noted that finding meaning and rest in the trauma equals the fact that the unspoken victim is certain that whatever could be done was done for the victim:

...that in the end, it is that the unspoken victims can go to bed at night and not think about it all the time. That you can have peace of mind knowing that it has been “through the mill”, that you have gotten the justice you wanted, that someone may have been punished and that some learning has come out of it. (A, FG1)

The Hypothesis

Having analysed the individual themes one at a time and the possible connections between the individual themes, now is the place to look at all the themes together and examine the initial hypothesis. The first thing to keep in mind is that multiple times the participants emphasized the importance of prevention. They all believe that it is important to prevent similar accidents from happening again, and for this to occur this should first be the focus on learning. Further, the punishment should act as an incentive for changing behaviour. Justice is a very subjective feeling, but these informants seem to agree that finding justice is an integral part of our lives.

When one of the focus groups was directly asked whether the hypothesis made sense in their worldview, some interesting points came forward:

I think this (the hypothesis) is a very good explanation for why an accident like the Scandinavian Star², for example, keeps alive in society, stories, podcasts and TV. Because no one has been punished, there has been no justice. (B, FG1)

As discussed earlier, some accidents can stay in the mind of society many years after the accident. Especially if there is a public belief that the accident could have been prevented; thus, someone has done a malicious act that led to this accident. The public might then seek justice through the punishment of the individual or the organisation, or perhaps justice is found through learning alone:

I think, for me, it is all about balance. If you see it as a big glass, then it must be filled somehow. So, if someone has done something and they acknowledge that it was really

² M/S Scandinavian Star caught on fire in 1990, resulting in the death of 159 people.

stupid, and they take the blame well, then I do not feel they need a big punishment because they have also learned and been there and acknowledged that they are the ones who have done something wrong. So, the justice is that they come and say sorry, and they learn some lessons from it. "I will try to do that differently in the future." Then, for me, they do not have to be punished very severely. But if, on the other hand, someone says I have nothing to do with that, it is someone else's fault, but in my view, it is their fault, then they should be severely punished. -Because they do not learn from it, and they do not have any insight to acknowledge that they are the ones who have done something. So, I see it as a balance between the three themes. (C, FG1)

Intriguingly, it appears that when one needs to find justice and thus meaning, the sum of learning and punishment balance out. This means that if learning does not seem to happen, then punishment is important, or vice versa.

Discussion

In the following section, the analysed data will be discussed. The discussion will be based on the literature review, the researcher's own experiences, and research findings. Each section will begin with a haiku poem created by an AI chat robot, namely the openAI chat robot, ChatGPT³. What is interesting about this AI is that it has been trained on a dataset of millions of web pages, books, and other texts, so it has a wide range of knowledge about various topics. When the AI is asked to produce something, e.g., a haiku poem, it will use statistical techniques to predict the next word or character in a sequence based on the patterns it learned from a large text dataset. Starting each section with a haiku poem created by this AI will hopefully help to begin the reflection process for the reader. Furthermore, it is interesting that this AI is so accurate in formulating a haiku poem that frames each section nicely.

Justice

Justice, fair and true

Guiding light in the darkness

Righting wrongs anew

As described by interviewee A and person D in FG1, each group of persons, being a workplace, a family, an organisation, or society, agrees on their own collective moral and ethical boundaries; you agree on what is wrong and what is right. The feeling of being treated unjustly is described by person D in FG1 as whenever these moral and/or ethic boundaries are being crossed, for instance, by an action or experience. So, the individual who is left with the feeling of

³ [ChatGPT \(openai.com\)](https://openai.com)

injustice attempts to seek justice. To find justice in an unjust action is however not that straightforward. During the discussion in FG2, it became clear that the justice is often a subjective feeling, and the restoration of just can be precisely as subjective.

In the literature review, it was described by Pine (2014) that the grief potential is high from a violent loss. From this, it might be that in the aftermath of an accident, the unspoken victim will feel that the violent loss was an unjust loss. To bring justice back into the world, the unspoken victim will have to either adjust his/her boundaries or find that justice has been served. Justice can be served through learning or punishment, but this is not always successful. Whether it is successful will be discussed later in this section.

However, as Janoff-Bulman and McPherson Frantz (1997) argue, there are two ways of finding meaning in one's trauma, either as comprehensibility or as significance. The collected data shows that this is true for these informants: Comprehensibility is one way that the unspoken victim will restore their faith in the world, and the world will then move back within the boundaries. As interviewee A described, it was time which provided meaning to the loss. In contrast, the significance of a trauma can be found through adding value to the trauma and having moved past the trauma by gaining wisdom or having found that the "world" has learned something. To find meaning as significance was interestingly dominant throughout the focus group discussions.

However, what is left is still the question of how an individual finds justice. Interviewee B and person D in FG2 described that the subjective feeling of justice could be based on comparing what others in a similar situation have experienced. For instance, the typical punishment for killing another person in Denmark is around 14 or 16 years of imprisonment (Grøn, 2011). As described by person D in FG1, this is considered fair and just, while the same sentence might not

be experienced as fair and just in another part of the world. So, the researcher believes that the feeling of justice is based on norms and traditions in the society in which an individual lives.

Both interviewees, A and B, as well as Boelen et al. (2015) and Redmond (2014), describe how an unspoken victim is left in grief after the experience of a violent loss. Redmond (2014) describes further that this grief can be complicated or might even be impossible to dissolve if the unspoken victim has not found meaning in the loss. Accordingly to Dekker (2014b), an accident investigation report can serve to answer questions for the unspoken victim, serving as a place to find answers. However, both focus groups agreed that the accident investigation report must present some learning and, more importantly, that unspoken victims require to see that learning has actually occurred.

Learning

Learning is a journey

New knowledge, skills to be gained

Eager mind, set forth

Interviewees A and B, and person B in FG1, believed that to turn something unjust into justice, an intent to learn from the accident had to be present. From Haunschild and Sullivan (2002), interviewee A and the discussion in focus group 2, we learned that learning should lead to prevention. Further, focus group 1 discussed that this learning will help the unspoken victim to place value on their trauma, the value being that somebody else will not experience the same trauma. However, as described by Schön and Argyris (1996), learning might prove challenging to achieve, let alone to prove that it in fact had happened. The accident investigation on the train

crash on the Great Belt bridge suggested multiple learning points. Here many points were revealed that could help DB improve their systems so that similar incidents would not happen again. However, DB does not appear to have learned from past incidents since semi-trailers have kept coming loose during the transit of the bridge in high winds. This ultimately ended first in a ban on transporting semi-trailers across the bridge and later a ban across all of Denmark (Vestager, 2021a, 2021b). The fact that semi-trailers kept coming loose when transiting the bridge might have caused the debate to stay alive, and further, the unspoken victims still might have yet found their meaning in relation to the trauma that they experienced in 2019 (Romme, 2022). From interviewee A and the discussion in focus group 2, we learned that when learning seemingly does not happen, it might increase the unspoken victims' need for someone or something to be punished.

So, DB might not have achieved what Schön and Argyris (1996) call double-loop learning. Drupsteen and Guldenmund (2014) argued that double-loop learning from incidents could be hard to achieve and integrate in a way that what is learnt is not forgotten in everyday life. When an individual or organisation achieve double-loop learning, the learning will change the underlying aspects of that organisation or individual—changing their worldview through changes in their strategies and values. However, on the other hand, how does one know that this is achieved? Perhaps we do not know whether we, as an organisation or individual, have learned what to do when facing a similar situation again in the future. But then again, is life a repetition of certain situations, or is there more complexity to it, and the exact same situation may never happen again?

Interestingly, both focus groups believed that when an unspoken victim is left with the feeling of injustice, learning is important to restoring a feeling of justice in the world. However,

interviewees A and B could not see a direct connection between justice and learning. This leaves us in limbo, where the idea of a clear connection between justice and learning might change based on how we have experienced a violent loss or not. It seems that both focus groups believe that society expects us to learn from everything, so when learning is not apparent, accidents keep happening. How does this leave the unspoken victim searching for meaning? Perhaps the answer to this question lies in punishment.

Punishment

Punishment's sharp sting

Teaches right from wrong, we learn

Better choices made

Both interviewees A and B and the focus groups believe that in society, we have, more or less, agreed on a set of rules which we need to live by if the world not to end in total chaos. This is similar to the argument by Davis et al. (1998) that we believe that the world is controllable. We have international conventions, country-specific legislations, and individual unwritten rules. However, some actions are illegal in some societies while legal in others. The interviewees, focus groups and Alicke (2000) all argue accountability needs to be dealt with when rules are broken; people need to be held accountable for their actions.

Accountability might lead to punishment, and punishment needs to be felt by the individual or organisation who breaks the rules if that punishment is to serve as a sanction (Coffee, 1981). The sanction can be in the way of a fine, imprisonment or the like. Further, person E in FG1 felt punishment can also be the public's opinion of an individual or

organisation. What matters to interviewee A and person B in FG2 is that to avoid accidents, it should not be worthwhile to break the rules. Interestingly, whenever the question of justice was discussed in the focus groups, as well as with interviewee A, the conversation always turned to punishment. As an example, person D in FG2 argued that there is a sense of justice linked to the fact that one can blame somebody for an incident. Therefore, a connection between finding justice can be linked to punishment. In the literature review, Estes (1944) argued that punishment does not necessarily work well to eliminate a specific behaviour in any organism or institution. However, from collected data, we discovered that there exists for these informants an idea of punishment working primarily as a form of prevention, e.g., as when interviewee B argued that punishment could serve as a deterrent to others.

So, what makes punishment a punishment? In South Korea, they enacted a legislation, SAPA, to ensure that executives and business owners can be punished (Choi et al., 2022). From the discussion regarding whether a connection exists between punishment and justice, we learned that what matters to interviewee A is the fact that the truck driver "...was so upset." So, perhaps the truck driver was punished through regret. In focus group 2, it was felt that unspoken victims could gain meaning through the fact that something or someone is to blame for their loss. If something or someone is to blame for the loss, then the unspoken victim's worldview might still be correct because it was just someone who caused the loss. Then blame can serve to restore faith in the worldview of the unspoken victim, thus creating meaning as a strong form of comprehensibility, as described by Janoff-Bulman and McPherson Frantz (1997).

An accident investigation can, as described by Dekker (2014b), serve multiple purposes, but the AIB's report's role is not to point blame or propose punishment. We saw that in the accident investigation report from the train accident on the Great Belt bridge, the focus of the

AIB was on improving safety through learning and nothing but learning. However, the Danish police conducted their own criminal investigation of the train crash to determine if someone could be prosecuted for the accident. Their investigation concluded that no one could be held legally accountable for the accident, leaving the unspoken victims of the accident in despair (Sørensen, n.d.).

Meaning Through Justice, Learning and Punishment

Meaning, a quest sought

In life's journey, we seek to find

Purpose in our days

For the researcher, an essential part of overcoming grief is to find and allocate meaning to one's loss. Brinkmann (2021) argues that grief is a central part of life, and it is the price which we need to pay for love. To love is to, at some point in life, opens us to the possibility of grief.

Grief is a powerful emotion embedded in everyone (DeSpelder & Strickland, 2015), but the reaction to grief will differ from person to person. Some will escape their grief by finding meaning; DeSpelder and Strickland (2015) describe how "Bereaved individuals often describe themselves as stronger, more competent, more mature, more independent, better able to face other crises of life." (p. 341) Interviewee C described that an essential part of meaning is related to the epistemological needs of the unspoken victim. Especially interviewee B stressed the clarification of what actually happened and how the accident unravelled. However, interviewee A described that she was not able to escape the grief by finding meaning; instead, she experienced a sense of living with the grief. Therefore, individuals might not necessarily benefit from having all

their questions answered, hence finding meaning as the hypothesis proposed. Instead, these unspoken victims, as interviewee B, simply require time, time to adjust their worldview and learn to live with their grief.

According to focus group 1, some individuals might be able to find meaning through the hypothesis. They attribute meaning to a loss through the sense of justice when justice is shown through learning and punishment. It seems that these individuals will require that learning happens, and if the learning does not happen, they feel it is important to punish someone. Especially person C in FG1 acknowledged the fact that the more willing persons are to learn, the less important it is to punish. Therefore, it seems that some individuals require proof that learning has happened in the aftermath of an accident. Consequently, it is the researcher's reflection that if unspoken victims experience that learning has not happened, then the unspoken victims may seem to require a form of punishment.

Thus, if we circle back to the hypothesis, accountability might be important to add to its variables. Accountability after an accident, is necessary if restoration of confidence in the system is to occur. Restoring confidence in the system is a need of society, especially western society (Dekker, 2014b). The system will often have to go through rituals in order to prove achievement of equilibrium; it can be as Alicke (2000) describes: "Blaming and punishing harm doers serves to discourage people who imperil others' physical and psychological well-being." (p. 569)

These rituals could also be proof of learning, as person A in FG1 described:

"...that the unspoken victims can go to bed at night and not think about it all the time.

That you can have peace of mind knowing that it has been "through the mill", that you

have gotten the justice you wanted, that someone may have been punished and that some learning has come out of it.”

In other words, when learning has happened through rituals, this can reduce the need for explanation from the suffering by demonstrating that “faulty” parts of the system have been identified and addressed.

The Hypothesis

To summarise the discussion section of this research, let us revisit the figure of the trinity proposed in the introduction. The research was originally designed to investigate Lasse’s statement about revenge and justice, but since Lasse did not wish to participate, instead, the hypothesis about finding meaning from a violent loss was proposed. Through the literature review, we briefly discovered some of the already known points regarding the themes of the hypothesis. Through interviews and focus group discussions, the research tried to find whether the hypothesis could explain how unspoken victims might find meaning from a violent loss.

From this research, we are now able to put some additional labels on each of the three themes (figure 4). Based on the discussion section, we know that punishment can be legal or social, and that punishment is more important if the intent to learn is not present, and that punishment can serve as a deterrent and an incentive not to behave or act in a specific way.

Further, justice is about the moral and ethical boundaries which we live within. They can be set up at different levels of society. The feeling of justice is a subjective feeling which needs some perspective or comparison to establish, validate and address.

Lastly, from the focus groups and interviewees A and B, we discovered that learning can be an important part of finding meaning. Interviewees A and B and the focus groups all agreed that

in the aftermath of an accident, learning should and can act as prevention. Further, having said this, it is important that the individual or organisation show some kind of proof of learning.

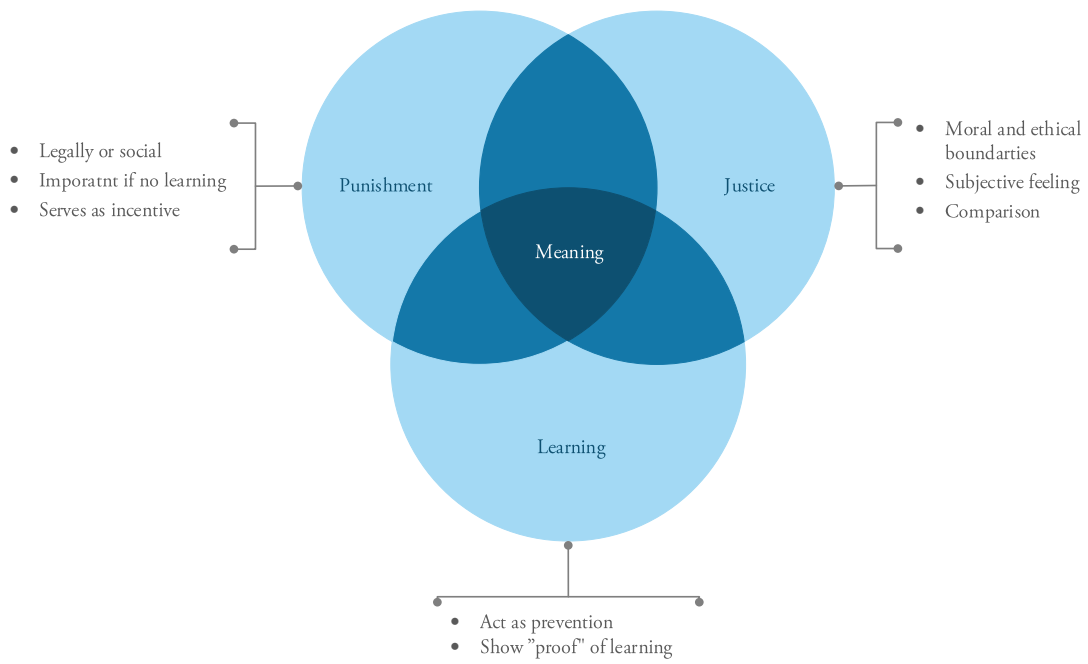


Figure 4 - Finding meaning through justice, learning and punishment

Conclusions

So why do we ask why? “Why” is a powerful question we ask often when searching for meaning. Based on a single person’s statement, Lasse, who is the individual who had tragically lost his fiancée in the deadliest train crash in Denmark for decades, the research proposed that meaning might be found through a “trinity” between punishment, learning, and justice.

The role of justice, learning, and punishment in finding meaning after losing a loved one in an accident may vary depending on the individual and the circumstances of the loss. In some cases, seeking justice through the legal system or other social means may provide a sense of closure and help individuals come to terms with the loss. Punishment of those responsible for the accident, if appropriate, can bring a sense of justice and helps individuals find meaning in the aftermath of the loss. From the literature review, interviews and focus group discussion, it seems that punishment is especially important if the unspoken victim does not perceive any intention or action to learn from the accident.

Learning about the causes of the accident and taking steps to prevent similar accidents from happening in the future can also provide a sense of meaning and purpose. Ultimately, however, the process of finding meaning after the loss of a loved one is a highly individual experience, and different people may find meaning in different ways.

Reflections by the researcher

Through this research, I have learned that unspoken victims are an important part of an accident. Losing someone you love is never easy, and there are still many stones untouched concerning how these individuals can find meaning in their traumatic loss, moving on so they can go back to everyday life. The research question is not an easy one to find *the answer* to, but I do hope that this research will bring unspoken victims into the society's attempts to deal with the aftermath of an accident. They further deserve all the information and support we can provide as a professional community interested in safety.

Unspoken victims can be an incredibly powerful group of people who can cause an accident to stay alive through media coverage. So, we in the safety science world must keep these unspoken victims in our minds when we discuss what the outcome of an accident should be. Dekker and Breakey (2016) call the practitioner(s) involved in an accident the second victims. However, it may be the real second victims are the unspoken victims.

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Appendix 1 - UK translation of summary, analysis, conclusions and safety recommendations

General

17.01.2020

The English versions of parts of the investigation report has been translated from Danish by an external translation agency. If there are any disagreements or doubts, the Danish version applies.

Summary

On Wednesday 2 January 2019 at 7:29 am, L 210 (DSB Lyntog 210) collided with a semi-trailer that was blown off G 9233 (DB Cargo Scandinavia's freight train G 9233). The collision took place on the Great Belt Bridge (the West Bridge) close to the abutment on Funen at km 127.440.

At the time of collision, both trains were moving at a speed of approx. 120 km/h.

There were 8 passenger fatalities and 18 passenger casualties at the collision.

The semi-trailer's kingpin was not locked on to the saddle of the freight wagon. The fresh gale that blew across the West Bridge when the freight train passed was therefore able to blow the empty semi-trailer out of its position in the pocket wagon. The semi-trailer was then dragged alongside the wagon until the place of collision.

The first signs that the semi-trailer was lying in the neighbouring track were subsequently found approx. 800 metres before the place of collision in the form of drag marks from the tarpaulin on the top of the protective rails, bits of the superstructure of the semi-trailer and subsequent damage to sleepers and expansion devices.

The investigations have shown that G 9233 was loaded at the combination terminal in Høje Tåstrup on 28 December 2018 and on 2 January 2019 and that the train was inspected – including loading and securing of the trailer in question – independently by several staff members.

The investigations have established that it is not possible to check with certainty that the locks on this type of saddle have been correctly locked and that in some cases the locks on this kind of pocket wagons in service between Høje Tåstrup and Fredericia have not been locked.

It is the assessment of the Danish Accident Investigation Board that video recordings of G 9233 passing several stations and the Great Belt Tunnel show that the semi-trailer on the first pocket wagon was placed in the same position as the other semi-trailers of this type on the train.

Further investigations and tests have established that the wind forces at the West Bridge on the morning in question were sufficient to tip a semi-trailer off of the saddle and pull the kingpin from the saddle on the freight wagon, also when the kingpin was placed correctly in the saddle if the saddle was not locked.

The investigations have also shown that a correctly placed and locked semi-trailer could not be blown from the saddle and wagon by the wind forces mentioned.

The mean wind force measured at the West Bridge did not exceed the limits applicable for freight train traffic on the bridge.

At the time of the accident, the Great Belt Bridge was closed for road traffic due to the wind forces measured at the East Bridge (the High Bridge).

Based on the investigations, it is concluded that it is highly probable that the semi-trailer was loaded correctly with the kingpin placed in the saddle, but that the lock that was to secure the semi-trailer to the pocket wagon was not working correctly, meaning that the semi-trailer was thus not locked on to the pocket wagon.

The IC4 train set has been examined to assess its crashworthiness. The conclusion is that the coach body of the first coach was exposed to impacts beyond the design requirements for the train type. The design of the coach body with double-sided extruded aluminium profiles has exerted a braking influence on the driving-direction motion of the semi-trailer, thus having a protective effect when exposed to the extensive force from the semi-trailer. This means that the design has in all probability limited the damage to the first wagon and thus also limited the number of fatalities and casualties.

Despite the fact that the deceleration in this collision was relatively limited, many lighting panels had dropped out of their fixtures on the underside of the luggage racks. These lighting panels have sharp corners and edges that have the potential of inflicting injuries on persons, but there is no information as to whether any passengers in L 210 were injured by falling lighting panels.

The Accident Investigation Board has provided the following recommendations:

Recommendation 1

The Accident Investigation Board recommends that ERA ensures that all safety-critical equipment (such as accessories) on freight wagons is identified and addressed in the European maintenance regime.

Recommendation 2

The Accident Investigation Board recommends that the Danish Transport, Construction and Housing Authority ensures that, going forward, the safety management system of DB Cargo Scandinavia A/S collects safety-relevant knowledge from staff members and other involved parties and that the company's safety management system addresses any such information.

Recommendation 3

The Accident Investigation Board recommends that the Danish Transport, Construction and Housing Authority ensures that Banedanmark and A/S Storebælt carry out an analysis of the need for updated safety requirements with regard to wind restrictions and the quality of wind measurements and make sure that among other the storm emergency team is aware of the safety threshold values.

Recommendation 4

The Accident Investigation Board recommends that the Danish Transport, Construction and Housing Authority ensures that DSB looks into the possibility of improving the fastening of lighting panels on the MG class (the IC4 train type) and implements the improvements to the necessary extent.

The recommendations are available in full in section 7.

Analysis

Sequence of events

The semi-trailer from the first pocket wagon in G 9233 collided with the front of L 210 on the Great Belt Bridge (West Bridge) at approximately km 127.440 of the section (about 400 metres from the abutment on the island of Funen).

The accident took place at 7:29 in the morning before daylight.

Video recordings and evidence (clues?) from the bridge showed that the semi-trailer had overturned from the freight train at least 500 metres before the collision and was lodged on the side of the pocket wagon until at least 300 metres before the collision. Finds in the empty pocket wagon of parts from the front of the IC4 train set showed that the semi-trailer was fully or partly on the side of the first pocket wagon at the time of the collision with L 210.

Damage to the track and finds of trailer parts showed that the semi-trailer's superstructure was in contact with the south track at about km 126.646. The semi-trailer is therefore deemed to have partly overturned from the pocket wagon at least 800 metres before the point of collision at km 127.440.

Marks on the tarpaulin from the left side of the semi-trailer and marks on the top of the protective rails show that, prior to the collision, the semi-trailer had tipped more than 90 degrees in relation to the normal position of the pocket wagon and had been dragged across the south track/neighbouring track.

The damage to the semi-trailer's stabilizers and to the pocket wagon's container bar indicated that the semi-trailer's left stabilizer had caught in the front container bar by the time of the collision.

The investigations into why and how the semi-trailer was able to leave its position in the pocket wagon and collide with L 210 gave rise to three possible scenarios:

- a) The semi-trailer was correctly loaded with the kingpin locked securely in the saddle.
- b) The semi-trailer was loaded with the kingpin in front of or behind the saddle.
- c) The semi-trailer was loaded with the kingpin in the saddle, but the saddle was not locked.

a) Semi-trailer correctly loaded with the kingpin locked securely in the saddle

Attempts to pull the kingpin vertically out of the correctly locked saddle showed that the kingpin could not readily be pulled clear of the saddle; instead, the wagon started to lift clear of the track.

The second semi-trailer on the same pocket wagon as the trailer involved in the accident was almost empty, but locked in the saddle and remained in position on the pocket wagon.

The eventuality of the rear end of the semi-trailer having been blown out across the pocket, with the kingpin lodged in the saddle, seems unlikely considering the torsional stability that exists in the welded construction on this kind of semi-trailer according to the manufacturer. The tensile test confirmed that the semi-trailer was relatively rigid. The weight distribution on an empty semi-trailer was approximately 5 tonnes on the axles and 1.5 tonnes on the kingpin.

The finds showing that the semi-trailer was suspended across the neighbouring track and dragged along indicate that the semi-trailer was lying on its side, tilted at more than 90 degrees to its position on the pocket wagon, that virtually the entire length of the left side-tarpaulin had been dragged across the neighbouring track and that the top left corner had hit the track (partly at the point of the expansion device).

No damage was found to the saddle and lock, or to the pocket wagon, respectively, suggesting that the semi-trailer would have been hanging by its kingpin with the rear end twisted and lifted out of the pocket.

The way the semi-trailer penetrated the front of L 210 shows that at that point it was clear of the saddle and cannot have been torn clear of the lock at that juncture.

In a derailment incident in Sweden in February 2019 it was observed that pocket wagons were able to overturn, while semi-trailers still remained secured to the pocket wagons.

Winds like those occurring at the time and place of the accident would not be capable of blowing the semi-trailer clear of the saddle and pocket wagon if locked in the saddle.

Based on the available evidence, it can be established that the semi-trailer was not correctly locked to the saddle.

b) Semi-trailer loaded with the kingpin in front of or behind the saddle

Both before and since the accident there have been examples of semi-trailers being transported on pocket wagons without the kingpin being positioned in the saddle. Basically, this scenario is not unrealistic, but there are factors that militate against it in this instance.

During and after loading it was ensured that the semi-trailer was correctly loaded. Independently of each other, two crew members carried out checks to ensure that the semi-trailer was in position with the kingpin in the saddle. Owing to the previous events referred to above, making sure that the kingpin was in the saddle was a focus of attention.

Tensile testing showed that if the semi-trailer had been loaded with the kingpin in front on the left or behind the saddle, it would have required less of a wind force than occurred on the day of the accident to thrust the trailer out of profile.

From Høje Taastrup the freight train had travelled across Zealand to the Great Belt in an east-west direction, where the direction of the wind was north-south. Video recordings from the Great Belt Tunnel and from platforms showed no signs that the semi-trailer was out of profile before the train arrived at the low bridge.

Tests with the kingpin loaded in front of the saddle showed that the kingpin was able to get lodged in a part of the saddle until the traction became sufficiently powerful. The test resulted in damage to both kingpin and saddle, the equivalent of which was not found on those parts that were involved in the accident.

Furthermore, the front end of the semi-trailer would have been expected to slide out and the stabilizer to have damaged the inside of the pocket wagon. There was no damage to the inside of the pocket wagon other than that due to normal operations.

c) Semi-trailer loaded with the kingpin in the saddle, but saddle not locked

When the saddle was inspected after the accident, the levers were ascertainably and completely in the locked position.

The tests carried out by the Danish Accident Investigation Board, pulling the kingpin up from the saddle, showed that the saddle went into the locked position when the kingpin was pulled up. The above does not, therefore, preclude the possibility that the saddle may have been unlocked in transit. The forensic investigations confirmed that the saddle did not lock unaided during loading due to sluggishness of the lock mechanism.

An additional two saddles were found that were not locked on the freight train involved in the accident. At these sites were loaded semi-trailers that were at least three times heavier (and hence less sensitive to wind) than the one that toppled off the freight train. Investigations into other freight trains showed that, here too, there were saddles that were not locked. The problem with unlocked saddles therefore seems to have been widespread at the time of the accident.

Tensile testing showed that there was sufficient clearance between the hole in the saddle and the kingpin to allow the kingpin to be pulled up when the semi-trailer was overturned.

Forces measured during tensile tests, compared with data from wind tunnel tests, showed a clear correlation, confirming that the scenario was realistic.

The tests showed that, at a train speed of 120 kph, a wind force of 20 m/s would be sufficient to overturn the semi-trailer from the pocket wagon. At the time of the accident the mean wind force was about 20 m/s with gusts of up to 21.6 m/s.

Safety provisions

The traffic restrictions set out in the safety provisions were based on mean winds, not maximum gusts. The relationship between mean wind and gusts is not a constant, so the mean wind was not necessarily a satisfactory indication of the concrete impact of the wind. The limit for (speed) restrictions for rail traffic was 21 m/s, and since the mean wind was less than 21 m/s, there were no speed restrictions at the time of the accident.

It should be noted that the safety provisions generally assume that goods on freight trains are properly loaded and secured.

Saddle design

The reason the saddle did not automatically lock sufficiently was traced to inertia in the movement of the release lever, as well as connected levers with pivot points (primarily release lever and bush).

There were two sets of design drawings for the bush and the release lever. The first drawings received described greater tolerances that potentially failed to leave any clearance between the external bush diameter and the release lever. The drawings most recently forwarded described modified tolerances, which resulted in a minimum of 0.25 mm clearance between the external diameter of the bush and the bore diameter of the release lever.

A survey of the bush and the release lever's bore diameter showed that they conformed to the earlier design but not to the most recent one. The clearance measured between release lever and bush was 0.1 mm, and they had corroded together.

The design of the saddle did not allow effective lubrication with grease at the pivot point for the release lever without disconnecting the saddle. The manufacturer's manual described lubrication every four months with lithium-based grease. It also placed special emphasis on "all parts of the lock mechanism".

However, the illustration in the manual did not indicate any of the movable parts under the saddle plate; and since these could not be lubricated effectively using grease, lubricating the hole in the kingpin, together with the lock parts fitted inside, could be taken to be sufficient.

The maker's procedure for loading and locking the saddle was described in the operating manual. The description in the manual could be read in such a way that when the cutout in the control lever was not visible, the saddle would be locked. Investigations of the saddle have shown that the saddle risked not being locked even when the cutout was not visible.

Maintenance

There is no known documentation to show periodic maintenance and inspection of the saddle between pocket wagon overhauls.

The bottom of the saddle plate, with movable parts, clearly showed traces of a failure to lubricate. Conversely, the hole in the kingpin was well lubricated.

The saddle plate was worn and defective. The edges of the hole in the saddle plate to the guide ring were deformed, preventing the guide ring from sliding freely to such an extent as to make it impossible for the automatic emergency braking system to function optimally. The emergency braking system is only of importance during major semi-trailer movements longitudinally and therefore had no bearing on the accident sequence.

The task of lubricating all the lock mechanism's movable parts has not been clearly identified and placed.

Descriptions from the saddle manufacturer do not feature detailed illustrations and are inadequate if the task is presumed to be carried out when operational. If the job of lubrication is presumed to be carried out at a certified workshop with qualified staff (meaning trained staff here), the descriptions may be adequate.

No correspondence is seen between scheduled times for the pocket wagon servicing regime and the times laid down in the saddle operating and maintenance manual.

Lubrication of the saddle's movable parts is not regarded as regular maintenance of neither the ECM unit, or the keeper or the railway undertaking, in spite of the manufacturer stating outright in all versions of the maintenance manual that non-lubrication may be critical to safety.

It is the Accident Investigation Board's assessment that lubrication of the saddle must be accorded the same status as regular maintenance.

There is no evidence that correct lubrication of the saddle's movable parts, including the lock mechanism, was regularly checked in accordance with the manufacturer's instructions.

At the time of the accident there was no documentation of regular inspection and maintenance of the saddle or lubrication of the lock mechanism's movable parts on the saddle.

Different versions of the saddle operating and maintenance manual have been received from the workshop, operator and saddle manufacturer.

The overriding conclusion is that insufficient attention has been paid to how, and by whom, the movable parts on the saddle's lock mechanism are to be lubricated. If this lubrication has not been correctly performed, the saddle manufacturer states that such failure to lubricate may be of significance to safety, and thus that the lock mechanism risks not being serviceable, and hence the semi-trailer is not locked to the pocket wagon.

Crew members working on loading, unloading and repairing of saddles have expressed the view that lubricating the saddle is not viewed or characterized as being critical to safety, and they regarded lubrication as an operational task.

Design and conditions for use

The pocket wagon was designed with a view to eliminate the need for multiple anchor points, thus making the saddle's lock mechanism and the kingpin the only anchor point between the pocket wagon and the semi-trailer. This in itself makes the saddle a safety-critical point meriting special attention. In the event of a failure, the only other barrier is that the lock on the saddle can be checked after loading a semi-trailer.

Focusing on the fact that the saddle is the only anchor point, and on descriptions of risks associated with non-lubrication given by the saddle manufacturer in their instructions, lubrication should be regarded as safety maintenance and be documented. This cannot be equated with lubrication of e.g. a buffer or with cleaning.

Labels and panels on the pocket wagon were updated after the pocket wagon was modified in the form of a raised wagon bed. A 't' is missing for correct codification.

The instructions can be misleading, as it is not clear when the codification on the semi-trailer should be followed and what exactly applies in what instance.

Approvals

The original approval of the pocket wagon has been documented and is transparent. No irregularities have been noted.

The increased height of the pocket wagon bed had not been approved. At the time it was modified, the modification did not necessarily have to be approved by the authorities but could be dealt with in-house at the relevant rail company if it was able to prove that the modification was a minor one. No documentation for such reasoning has been found. It has not been possible to get hold of working descriptions or drawings relating to the "raised wagon bed".

Broadly speaking, documentation of the modification was limited to conclusions, though to some extent assessments were described in conjunction with the modification.

No notifications were issued to the authority (the Dutch safety authority) that had issued the approvals.

The Danish Transport Authority (National Rail Authority) was aware of the modification.

When VTG Rail Europe GmbH was certified as an ECM unit, no shortcomings were identified in their procedure for identifying and controlling all maintenance activities impacting on safety-critical components ((EU) 445/2011, Annex II, Article II.1).

Loading regulations/servicing

The operator's loading regulations were based on the maker's manual, which described how the saddle was locked when the operating levers were pulled in completely and the cutout on the operating lever was not visible. The manual did not describe how to be sure that the operating lever was in the fully retracted position and contained no further inspection requirements.

At the time of the accident the loading regulations required inspection of the saddle, but no function check prior to loading, nor any additional check after loading to see whether the saddle was locked apart from the above.

The loading regulations described how the stabilizers on the semi-trailer had to be moved upwards after loading and before transit. Measurements subsequently showed that the stabilizers could not have touched the wagon bed and were clear of the wagon bed as they were meant to be.

Raised wagon bed

Because the operator was moving mega semi-trailers, the wagon bed had been raised by 155 mm where the wheels of the semi-trailer were. At the same time, the saddle had been adjusted to its highest setting (1,130 mm) for semi-trailers, which would normally be transported in the centremost setting (980 mm). Since the whole upper part of the semi-trailer was already above the pocket at all settings, the 155 mm only meant that the wheels were exposed more to the wind.

The raised wagon bed may have resulted in the semi-trailer tipping out over the side of the pocket wagon more easily. However, the sides of the pocket are not considered high enough to prevent the semi-trailer from overturning, but were primarily designed to prevent skidding.

Against the backdrop of the above, it is considered that the raised wagon bed had no or very little influence on the accident, though this has not been investigated in more detail.

Other saddles

The saddle that had been placed in position 3 was in such a poor state that the lock mechanism was completely immovable.

In as far as it was ascertained that the freight train from the accident had a further two saddles which were not locked and another train had two saddles which did not lock, and crew members who unloaded and loaded the trailers were aware that the fault was not atypical on saddle locks prior to 02.01.2019, unlocked saddles in operation can only be found to have been a known fault at the time of the accident.

Other factors

The fact that the engine driver in L 210 opted to drive 120 kph when he was allowed to drive 180 kph probably reduced the consequences of the collision.

In its investigations DTU deemed the wind speed measurements to be valid. The supplier of the meters has stated that the individual wind meter may offer a less precise measurement in any one particular wind direction.

Restrictions in connection with wind impacts have been altered several times. The existing restrictions were stipulated on the basis of harmonization with threshold values in a “management process” at Banedanmark (Rail Net Denmark), dictating that a three-level storm contingency plan be set up. These threshold values, with which the threshold values on the Great Belt have been harmonized, apply throughout Denmark and largely have to do with regularity and fallen trees.

There is nothing in the crashworthiness investigation to indicate that there were inadequacies or faults in the train’s coach body design or manufacture. With regard to the interior, a number of lighting panels on the underside of luggage racks fell down despite the limited deceleration.

Conclusion

Based on the investigations carried out, it is the assessment of the Accident Investigation Board that the only likely scenario is that the semi-trailer was loaded with the kingpin in the saddle, but that the saddle was not locked before the accident.

It is the opinion of the Accident Investigation Board that the unlocked locking mechanism was the reason the empty and thus relatively light semi-trailer could be blown from its place in the freight train and collide with L 210.

At the time of the accident the mean wind speed was registered at below 21 m/s and thus below the applicable limits for introducing restrictions on rail traffic across the Great Belt (the West Bridge).

The Accident Investigation Board finds that the following factors had or could have had an impact on the inadequate locking of this as well as other similar saddles where investigations have established that they did not lock correctly:

- The common European maintenance regime (GCU) implied that the maintenance of the actual freight wagon was found to be satisfactory, but the safety maintenance of the parts regarded as “accessories” were not included in the scheduled maintenance.
- All editions of the saddle manufacturer’s manual identified lubrication of the saddle as safety-critical, but this knowledge was not identified by the operator’s safety management system and was not part of the scheduled maintenance of the saddle.
- The saddle design made it difficult to lubricate the pivot of the release lever, and the previous design did not leave sufficient clearance between the release lever and the bush.
- The design of the saddle impeded the lubrication of other pivots in the rod mechanisms on the back of the saddle plate.
- The manual of the saddle manufacturer included maintenance instructions that did not clearly describe the necessary lubrication of the movable parts below the saddle plate.
 - The maintenance of saddles was generally characterised by shortcomings.
- The manual of the saddle manufacturer described that the saddle was locked when the lever was pulled back fully and the cutout on the control lever was not visible. The Accident Investigation Board’s investigations have shown that the saddle could be unlocked even when the control lever was pushed in and the cutout was not visible. It was not possible to verify visually that the lever was fully pulled back.
- At the time of the accident, the operator’s loading instructions did not include any functional check of the saddle before loading, which was not a requirement.
- The operator’s checking of the saddle being locked when a semi-trailer was loaded was based on the manufacturer’s manual. This check based on the manufacturer’s manual was not sufficient to ensure that the saddle was locked.

- It is the responsibility of the Entity in Charge of Maintenance (ECM) to prepare maintenance plans in accordance with the manufacturer's recommendations, paying particular attention to safety-critical activities. This raises further questions to the certification of the particular ECM as to whether any weaknesses have been identified in VTG Rail Europe's procedure to identify and manage all maintenance activities which affect safety-critical components.
- The measurements of the wind speeds from the two anemometers have been assessed as valid. There may be some doubt as to whether one of the anemometers might measure less accurately at certain wind directions and there may therefore be some doubt as to the overall quality of the wind measurements.

Investigations of the crashworthiness of the IC4 train set did not establish any fault in the coach body of the train set, but they did point out a possibility for improvement with regard to the interior of the train type.

Supplementary information

The crashworthiness specialists have pointed out that, going forward, it should be considered whether requirements should be made with regard to penetration resistance for the coach body walls similar to the requirements made on the roof structures of the coach body when designing new trains.

Safety recommendations

Recommendation 1

The existing maintenance regime, which is managed through the GCU contracts, appears to function well in relation to the actual freight wagon type. However, with regard to components that may be described as “accessories”, safety-critical maintenance (e.g. correct lubrication of the saddle) appears not to have been identified and addressed.

DK-2019 R 1 of 18.12.2019

The Accident Investigation Board recommends that ERA ensures that all safety-critical equipment (such as accessories) on freight wagons is identified and addressed in the European maintenance regime.

Recommendation 2

The issue that a number of the locks on the saddles were not working is a fact of which some of the staff members at DB Cargo Scandinavia A/S and Carlsberg, who load and unload semi-trailers, were well aware. This knowledge appears not to have been identified or addressed in the safety management system of DB Cargo Scandinavia A/S.

DK-2019 R 2 of 18.12.2019

The Accident Investigation Board recommends that the Danish Transport, Construction and Housing Authority ensures that, going forward, the safety management system of DB Cargo Scandinavia A/S collects safety-relevant knowledge from staff members and other involved parties and that the company’s safety management system addresses any such information.

Recommendation 3

Restrictions in connection with wind effects have been changed several times. The existing restrictions appear to have been established based on a harmonisation with the threshold values in a “management process” in Banedanmark that requires the establishment of a three-level storm contingency plan. These threshold values, with which the threshold values on the Great Belt are harmonised, apply to the entire country and concern largely regularity and fallen trees.

DK-2019 R 3 of 18.12.2019

The Accident Investigation Board recommends that the Danish Transport, Construction and Housing Authority ensures that Banedanmark and A/S Storebælt carry out an analysis of the need for updated safety requirements with regard to wind restrictions and the quality of wind measurements and make sure that among other the storm emergency team is aware of the safety threshold values.

Recommendation 4

Despite the fact that the deceleration in this collision was relatively limited, many lighting panels had dropped out of their fixtures on the underside of the luggage racks. These lighting panels have sharp corners and edges that have the potential of inflicting injuries on persons.

DK-2019 R 4 of 18.12.2019

The Accident Investigation Board recommends that the Danish Transport, Construction and Housing Authority ensures that DSB looks into the possibility of improving the fastening of lighting panels on the MG class (the IC4 train type) and implements the improvements to the necessary extent.

Appendix 2 – Informed Consent Form

Informed Consent Form

WHY DO WE ASK WHY? -FINDING MEANING AFTER A VIOLENT LOSS

Student Investigator:

Mads Monrad Møller, Lund University

Project Purpose and Procedure:

Through interviews and focus groups, it is investigated how an individual can find meaning after a violent loss. The focus will be on a hypothesis developed by the researcher, namely that three themes need to be fulfilled to find meaning: justice, learning and punishment.

The purpose of the research is to highlight an aspect of accident aftermath that is overlooked.

The results of this study will be published as a thesis, and it may also be published as articles in scientific journal(s).

Confidentiality:

Identities of all participants will remain anonymous and will be kept confidential from all other parties other than the interviewer. Notes will be taken, and recordings made (optional) during the interview/focus group for the purpose of recall by the researcher for future analysis. Anonymity will be further protected in any future portions of the thesis paper and any presentations that may result from this work.

Compensation:

There will be no compensation for participation in the research.

Contact Information about this Thesis Work:

Mads Monrad Møller

Tel: +45 41831168 / E-mail: mmm@simac.dk

Risks/Benefits:

There are no known risks or benefits to participating in this research.

Consent:

Your participation in this research project is entirely voluntary. You may refuse to participate or withdraw from the research at any time.

Your signature indicates that you have received a copy of this consent form for your own records and that you consent to participate in this research.

I, _____ agree to participate as outline above. My participation is voluntary and I understand I can withdraw at anytime.

Participant's Signature

Date

Student Investigator Signature

Date