



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

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Better Safe than Sorry?

A case study on how Health and Safety Work unfolds in a Construction Company

Linda Elsborg

Supervisor: Niklas Egels-Zandén
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*Master of Science in Management, Graduate
School of Business Economics and Law, University of Gothenburg*

Abstract

All employers in Sweden are required to conform to governmental work environment laws. The employer usually comply to these laws when translating them to workable practices, thus engaging in Health and Safety (H&S) work. This paper aim to investigate how H&S work unfolds in practice and particular within the Swedish construction industry; a sector that's struggling with high levels of risks and lack of engagement in H&S work. The paper adopts a qualitative approach where one case study of a large construction company was deemed appropriate. Data has been collected through two observations and 21 interviews with Health and Safety Managers, Planning Managers and Production Managers. By emphasizing how decisions happens using a logic of appropriateness lens in contrast to a logic of consequence for analyzing the collected data, this paper will contribute with new insights upon the practical work with H&S rooted in law compliance. The result of this paper reveals that H&S work is more than just having the financial resources and activities in place, but that human interaction is required which can complicate employers H&S work in numerous ways.

Key Words

Logic of Appropriateness, Decision- making, Construction, Work Environment, Health and Safety work, Safety and health, Work Environment Law, Law Compliance.

Abbreviations

AML: Work Environment Act. **SAM:** Systematic Work Environment Activities. **AFS:** Swedish Work Environment Authority's statutory collection. **HSSDM:** Health- and Safety Strategy and Development Manager. **HSSDL:** Health- and Safety Strategy and Development leader. **HSM:** Health- and Safety Manager. **HSL:** Health- and Safety leader. **HRBP:** HR Business Partner. **SMEs:** Small- and Medium Enterprises. **PM:** Project Manager

Introduction

Health and Safety (H&S) work have in recent years become an important practice within the Swedish labor market whereas the amount of workplace accidents and injuries have within the couple of years increased (Arbetsmiljöverket, 2019a-b; Cheng et al. 2015; Ikpe et al. 2011). With that said, H&S work is especially prominent in environments where the risk for personal injuries and deaths are high (Ikpe et al. 2011; Arbetsmiljöverket, 2017b). In this paper, H&S work is referred to the set of work related measures that can prevent workplace

accidents, crucial for creating a safe and healthy work stab (Kim et al. 2019). Nevertheless, H&S work is an important aspect for business survival as previous research confirms that firm risk to meet negative effects in productivity, financial results and public images if not engaging in H&S work (Wilson, 2010; Mulki et al, 2007; Price & Sun, 2017; Waddock & Graves, 1997; Biggs et al., 2005). Furthermore, the employees risk to encounter higher workplace stress, long term disability and sick leave which generate to an increasing cost for both the society and companies (Man-Fong Ho, 2011). In extreme cases, the lack of safe and healthy workplaces can lead to heights-strain injuries and deaths (Svenskbygggtidning, 2018; Hall et al., 2010).

One industry that is struggling with high numbers of fatal accidents, twice as many accidents and occupational diseases than other industries is the *construction industry* (Maskinentreprenören, 2018; Kines & Mikkelsen, 2003). The construction industry is characterized by project- based, temporary work where each project has its own purpose and pre conditions (Wilkinson et al., 2012). Many of the operations are constantly inevitable, executed outdoor, on heights and includes a range of different people with different roles, experiences and technical backgrounds that working side-by-side (Baxendale & Jones, 2000; Langford et al., 2014). For example, it is common that subcontractors are hired by larger firms to repair, maintain and execute the construction of projects, but when doing so the subcontractors do not always adhere to the same H&S rules set by the larger firms (Fagerfjäll, 2009; Sveriges Byggindustrier, 2018). The subcontractor have work environment responsibility towards its own staff, but when the cost for H&S work increases, subcontractors tend to pay lower priority on health and safety (Windapo et al., 2013; Manu et al., 2013). When people in the same time have different behaviours and attitudes to risk, the construction work can quickly become a risky operation (Choudhry & Fang, 2008). In fact, the Swedish Work Environment Authority confirmed in a report (2017a) that one in four employers seem to struggle with engaging in H&S work in line with the law.

To engage in H&S work in line with work environment law is mandatory (Arbetsmiljöverket, 2018b-c). All employers running business in Sweden have according to the Work Environment Act (AML) meet certain obligations to prevent ill health and accidents at work (Arbetsmiljöverket, 2018d-e). In the same time, the Systematic Work Environment Activities (SAM) demands the employer to engage in continuous assessments, risk inventories, action plans, controls, follow- ups and create routines for making sure that the daily work is enough safe (Arbetsmiljöverket, 2018e-f). In addition, there are stipulated regulations (AFS) that points to how companies within construction should plan, execute and follow-up the work in a safe way (Arbetsmiljöverket, 2016, 2018e, g). The employer cannot, except if its a one-man-business, pass on this responsibility to a single person. Still, managers with enough authority and competence are usually appointed with different roles, given that enough resources exist to control that the work environment job is performed (Arbetsmiljöverket, 2016).

To improve the overall management and the coordination though, the Swedish Work Environment Authority collaborates with politicians, unions and employers to become better in detecting and catching firms that do not engage in proper H&S work (Aftonbladet, 2019; Prevent, 2019, Aires et al. 2016). That an effective public administration can help in this matter is forwarded by Konkurrensverket (2018a-b), thus it requires that the regulations are appropriate to the various markets that the regulations target. Measures come in form of stricter rules, increasing inspections, controls, penalties and shutting down businesses (Arbetsmiljöverket, 2018a; Psomas et al., 2011; Aftonbladet, 2019; Arewa et al., 2018). The individual employer are in the same time required to take its responsibility by engaging in proper H&S work in line with the law requirements.

An industry representative mean nonetheless that the legal framework can sometime put unreasonable demands on employers engagement in H&S work, meaning that the laws demand constantly control and monitoring of the workers, but for many actors this is difficult to achieve as many don't have the resources (Arbetarskydd, 2018). When employers lack of resources, sustainability aspects are often weight against each other (Cheng et al. 2015; Baxendale & Jones, 2000; Bardach & Kagan, 2002). Furthermore, when the laws become too many, complex or unclear it could constitute certain challenges for all employers (Michael, 2006; Cheng et al. 2015; Baxendale & Jones, 2000; Swedish Standards Institute, 2018). And even if one rule is well-suited for its specific purpose in one setting, it may indirectly act as an inefficient regulation in another context (Konkurrensverket, 2018a-b).

Continuously, it remains unclear *how* the individual employer actually work in practice for being able to take this responsibility in terms of following the law, and the question remains unanswered in whether or not this is an easy task to fulfill. It could be assumed that as some employers don't engage in H&S work in line with the law requirements, despite the severe consequences that often follows, it might not be as simple as authorities would have wished for. On the one hand the work environment rules are used as means for dealing with employers that do not work with H&S, on the other hand the individual worker takes its responsibility by engaging in H&S work aligned with the rules that exist. Previous studies have been able to confirm that the individual worker may struggle with conforming to work environment laws as no clear instructions or single formula exist that can explain how the individual should or can work to achieve this “responsibility” (Mullan et al. 2015; Bloodgood et al., 2008). In line with these arguments, this paper seek to answering the research question: “How do Health and Safety work unfold within the Swedish construction industry?”.

Previous research and relevance of the study

When turning to previous research upon the subject, a lot of studies have been made upon the different factors explaining employers lack of engagement in H&S work (Khosravi et al. 2014). Researchers mean that individual factors such as nationality, religion, sex, education, attitude, personal goals, moral base and personality traits can explain individuals unwillingness to engage in H&S work (Zuber, 2015; Healy & Niven, 2016; Bommer et al.,

1987; Fong Ho, 2011; Khosravi et al. 2014). In contrast, there are some researchers arguing that it could be environmental factors influencing individuals engagement in H&S work (Bommer et al. 1987; Ford & Richardsson, 1994). Beyond subcontractors and laws impact described above, Baxendale and Jones (2000) mean that lack of proper H&S work is caused by failures in control and lack of planning. Managers attitude towards health and safety can also impact employees attitude to H&S work (Choudhry & Fang, 2008). Other researchers mean that business culture, policies, customer demands and goal- setting could affect the H&S work (Bommer et al. 1987; Ford & Richardsson, 1994; Mohamed, 2002; Khosravi et al. 2014). In terms of culture, the industry struggle with a macho culture where injuries and accidents have been more-or-less accepted which in turn affect the prioritisation on H&S work (Choudry & Fang, 2008).

Further, if managers set too difficult, specific performance goals that are in conflict with other goals can create a too competitive corporate culture that can encourage people to behave inaccurate (Carroll, 1996; Healy & Niven, 2016; Hu & Chopra, 2016). Reedy (2017) confirmed that if employees feel that companies prioritize performance over doing things in the “right way”, the employees are also more likely to cut corners. In addition, customers can put pressure on firms through their purchasing power which Delmas and Toffel (2004, 2008) demonstrate in their studies. Despite the focus upon different factors, many researchers have analysed health and safety activities and initiatives to enhance safety performance (Hinze et al. 2013). Meanwhile other researchers have focused on specific aspects of safety work in construction e.g., why Swedish construction workers are injured in connection to scaffolding (Sawacha et al. 1999; Cheng et al., 2015; Khosravi et al. 2014; Hallgren & Axelsson, 2015)

Nevertheless, limited amount of research have so far been able to provide a wider perspective of H&S work in the construction industry. Recent academia endeavoring to use multi- means to address safety issues, and more in-depth investigations should capture the whole process which in turn will fill the gap between theory (how something should be) and practice (how things actually is) (Zhou et al. 2015). This is also supported by some researchers confirming that there is a lack of construction safety research at task level, and more attention should therefore be paid to practical work methods and techniques (Zhou et al.,2015; Cheng et al.,2015; Alarcon et al., 2016). To understand how H&S work unfolds in practice is therefore of particular importance. Not only due to its relevance for handling risky environments but also due to the need of getting a deeper understanding for the difficulties that the individual employer meet in practice. The ambition is to show that engaging in H&S work in line with the law requirements may not be easy or clear cut. By investigating how a large construction, known for its engagement in H&S issues, work in practice, the ambition is to gain new perspectives upon employers engagement in H&S work and also shed light on work environment laws and legal frameworks limitations.

Theoretical Framework

In large construction firms employees working on an operational level are seldom in direct contact with pure work environment laws, but these are translated to understandable policies, guidelines and work instructions by people working for a specific department (Michael, 2006; Arbetsmiljöverket, 2018c; Cheng et al. 2015). The employees working in the daily business conform to, and act upon these policies, guidelines and work instructions through different activities. Still, health and safety activities does not occur in a vacuum but require *human beings* to act upon these activities. When people act and interacts with each other, they also take certain *decisions* in terms of if and how they are going to engage in H&S work (Gillen et al. 2002). It is therefore always up to the individual or a group of workers to decide. However, when people with different roles, experiences, interests and so forth taking decisions, it could be assumed that it could constrain employers engagement in H&S work.

Introducing Decision- Making: Rational Choice and Logic of Appropriateness

Departing from the arguments above, decision- making theories were deemed appropriate to adopt for analysing this case. Decision making is a central human activity whereas a lot of previous research have been made upon the subject (March, 1994). Tourish (2014) discusses the role of leadership and followership in relation to the subject, Hill and Farkas (2001) write about how to make use of the team in the decision making process, and March (1991) focusing on what a decision is and how they are being made. What is specifically interesting with March's (1991,1994) studies is the focus upon how decisions happens in organizations. This is of particular interest because it corresponds well with the purpose of investigating how H&S work unfolds in practice. Because H&S work is shaped by individual decision making, it becomes relevant to understand how these decisions actually are made as the outcome of these decisions can actually have severe effects upon the making of H&S work.

Furthermore, March (1994) present two key concepts that will also be in focus of this paper for analyzing the empirical material: The Logic of Consequence and The Logic of Appropriateness. To use both these concepts as described to be opposite conceptions for how decisions are being made and the main rationale is built upon the same discussion as Perry (2000) refer to in his study. What Perry (2000) mean is that the logic of consequence: that people take decisions built upon pure rationality, are not enough for explaining organizational plurality, people's behaviours and empirical failures e.g., in this case employers engagement in H&S work, but a logic of appropriateness is helpful as it include sequences of indicative behaviors (March & Olsen, 1989). In fact, by applying the logic of appropriateness model upon specific situations it could help explain why employees- agents of firms- deviate from engaging in H&S work rooted in governmental laws and regulations.

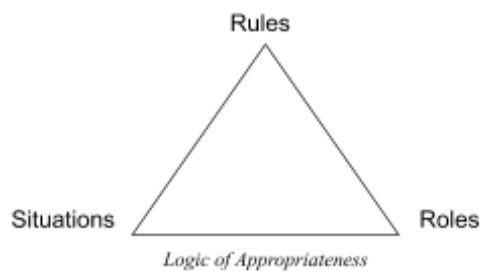
Logic of Consequence- Decisions made on Rational Choice

The most common and convincing conception of how decision happens result from an

intended rational calculation, “a logic of consequence” (March, 1991, 1994). The decision making process is clear, consequential and preference based, where actions depends on anticipations about the future and is the result of human choice. The decision maker has a set of alternatives, knows the consequences of these alternatives in terms of costs- benefits associated with alternative actions, have a certain preference order of these alternatives and from it selects the “best” decision that maximizes the expected value (Perry, 2000; March, 1994). Actions are in this theory based upon the principle of utility maximization (Perry, 2000). Nonetheless, this assume that perfect information for any particular decision is available. There is however some criticism to this rational way of making decision, whereas March and Olsen (2008a-b) argue that decision making are seldom that simple. In fact, Perry (2000) mean that rational choice masks empirical failures and competing perspectives. Instead, people’s decisions are shaped by a social environment filled with different symbols, roles and normative beliefs that empower and constraints people to act in accordance to prescribed rules of appropriateness.

Logic of Appropriateness

The logic of appropriateness is a conception of how decision happens, where decisions are built upon certain rules, the fulfillment of certain identities appropriate in certain situations (March, 1994). Rules and identities provide the basis for this logic according to March (1994), whereas social systems educate individuals into rules associated with certain identities. Nevertheless, following rules and adopting certain identities does not necessarily mean that individuals behavior is easily predicted. However, individuals use processes of self- awareness to clarify roles/identities, adopt to certain matching rules appropriate to the situation they find themselves in. Actions are then taken from a matching process between the three elements; the **situation** (“How do I define what kind of a situation this is?”), **identity/role** (“What kind of a person am I?”) and the **rules** that govern the behavior in the situation (“what is appropriate for a person like me in a situation such as this?”) (March & Olsen, 2008b).



Rules

People in an organization execute tasks by following a set of organizational rules (March, 1994). These rules are learned from experiences and followed when they are perceived as legitimate and rightful. In turn, rules define organizational roles and what it means to be an appropriate decision maker in certain situations e.g., being a “good accountant” means knowing, accepting and following certain rules that control individual behaviour (March, 1994; March & Olsen, 2008b). However, not all relevant rules are evoked at the same time,

but some are rather overlooked or ignored. This is especially prominent when rules are in conflict with other rules. Rules can also be ignored when they are ambiguous or the decision maker lack the ability, resources or competence to follow the rules e.g., under circumstances when professional ethics guide agents in how to behave but these are also in conflict with organizational profit goals (March, 1994; Orren & Skowronek, 1994; March & Olsen, 2008b). With that said, rules cannot fit every situation and sometime there needs to be a negotiation, selection and even a tolerance for deviation. Thus, when individuals must violate one rule to serve another e.g., to accomplish personal or group objectives, individuals become vulnerable of being accused for rule violation. Rules are nonetheless likely to be abandoned when they create unacceptable or irrelevant outcomes e.g., in situations where actors meet crises or disasters, the rules become labeled as “unworkable”, and the actors start to rethink the rules whereupon changes are being made (March et al., 2000).

Identity/Role

People differs in personality, gender, education, nationality, social value orientations, personal experiences to name a few, that can shape an individual's identity (Weber et al. 2004; Hiekkataipale & Lämsä, 2015). Decisions are in turn shaped by the decision maker's identity whereas one actor can have multiple identities where some clusters of identities may shift with the change in context (March & Olsen, 2008b). Not all parts of an individual's identity are available at the same time though but humans maintain a repertoire of identities that provide certain rules of what behaviour is appropriate in certain situations (March, 1994; March & Olsen, 2008b; Sending, 2002). Nonetheless, it is not a question concerning ones private reflection on the self but rather on the professional identity (Sending, 2002). Organizations define roles which individuals adopt and acts to fulfill (Hiekkataipale & Lämsä, 2015; Messick, 1999; Weber et al. 2004). However, individuals are more likely to adopt those identities which they or their friends excel as more important (March, 1994). This identity however is protected by emotions such as pride, shame and embarrassment where decision makers can violate a logic of consequence and be considered as stupid and naive, but violating moral obligations of identity the individual risk to be accused for lack of propriety (March, 1994).

Situation

How decisions are made also depends on the individual's recognition, classification and characteristics of the situation at hand (March & Olsen, 2008b; Weber et al. 2004; Hiekkataipale & Lämsä, 2015). In fact, fitting a rule to a situation is what constitute the appropriateness in the model (March & Olsen, 2008b). Identities and rules are social constructions developed in a specific context where people with different experiences and understandings act (March, 1994). Researchers mean that an actor make decisions based upon the context that involves social collective practices and expectations (March (1994; March & Olsen, 2008b). But this requires according to Weber et al. (2004; Hiekkataipale & Lämsä, 2015) that the individual look for “cues” from the environment to identify the nature of the situation. In response to these cues, cognitive “scripts” are matched with these cues and a

new situation is encountered. According to Weber et al. (2004) situations that have historically already been experienced, the likeliness increases for the decision maker to be confident in the decisions that are being made. Different rules, roles and identities are evoked in different situations (March & Olsen, 2008a-b). Sending (2002) nevertheless argue that a situation can be interpreted differently and the decision-making process can then become rather complex whereas identities are exercised by individuals with similar identities but these can act differently by applying different rules, simply because they interpret and understand the same situation differently (March, 1994; Sending, 2002).

Ambiguity - Critique against the Rational Choice

March (1994) forwards a strong critique towards decision based upon a logic of consequence. In the real world not all alternatives are known, not all consequences are considered and not all preferences are evoked at the same time. Because the world is filled with uncertainties and ambiguities people does seldom make decisions based on perfect information (March, 1994). In fact, human beings suffers from cognitive constraints and meet limitations in attention, memory and communication which prohibit their ability of collecting accurate information when taking certain decisions (March, 1991; Langford et al.,1995). Further, decisions made by one person are seldom made in isolation from other human beings. Instead, decisions are often coordinated, communicated and maintained through contact with other people which make the decision making social (March & Olsen, 2008a; Weber et al., 2004; March, 1994). Instead, people in organizations follow rules, operating procedures, professional standards, cultural norms because they seem to fit with their identity and situational cues, even when they do not fit with their self interest (Weber et al., 2004). Nevertheless, the “rational actor” handles uncertainties by departing from own interest, preferences, categorizing people, ignoring some information available and frame problems narrowly rather than broadly. Still, multiple actors interpret situations, rules and identities differently which give rise to an ambiguous picture of the world (Lowndes, 1996).

Nevertheless, there are some critique towards the logic of appropriateness. Balsiger (2016) mean that the model is rather inefficient and stiff, while other researchers point to the abstract character of the model and its limitations of being implemented on empirical work (Lowndes, 1996; Jordan, 1990). Other researchers mean that if the logic of appropriateness is a way of telling us something about organizational change, there are some critics arguing that it is a better model for explaining continuity (Sending, 2002). Furthermore, Goldmann (2005) is doubtful to the model as it emphasis an ambiguity and variation which points to a complexity in how to refute the model.

Methodology

The aim of this paper is to investigate *how* H&S work unfolds in practice within the Swedish construction industry, a qualitative approach was therefore deemed to be the most relevant method to adopt. A qualitative research fits well when I want to understand a complex

phenomenon that involves situations, people with different feelings, behaviours and experiences (Porta & Keating, 2008). Further, it is a method appropriate when I want to understand something beyond what is done but also get a deeper understanding for *how* (Yin, 2014). Due to the interest in understanding how H&S work unfolds in practice a case study method was applicable. This is according to Eriksson & Wiedersheim- Paul (2014) relevant when you want to study a real life phenomenon more in depth.

The Critical Case

The chosen firm in this case employs approximately 10.000 people and is one of the largest construction firms engaging in housing in Sweden. In this study, the Gothenburg- region was of particular interest as the company is right now having many active projects in the area. According to Yin (2014) a critical case reflect the desirable position which other firms wishes to achieve. In relation to this paper, the chosen case is critical for two main reasons: it is a large company that formally marketing themselves as one of the leading actors on H&S work. The chosen company has a lot of financial resources available for investing in H&S work, and has an established H&S organization, working simplicity with work environment issues. This in turn could qualify the firm to be in a desirable position, which many other actors within construction would wish to be able to fulfill, many other firms might look up to this firm due to its comprehensive H&S work. Thus, larger firms are also large job providers for SMEs that usually work as subcontractors, it could therefore be expected that if the larger firm-that are often imitated by smaller firms- are facing challenges with H&S work, the smaller actors are likely to meet similar challenges (Arbetsmiljöverket, 2016)

Sampling Strategy

An initial contact with the company was made through email, which led to an interview with one Foreman and one HR professional working in the Gothenburg office. Continuously, the selection of respondents was made by the implementation of a so-called snowball sampling-strategy (Emerson, 2015; Atkinson & Flint, 2001). A snowball sampling technique is when one subject gives me as the researcher the name of another subject, who in turn provides the name of a third and so on (Atkinson & Flint, 2001). In relation to this study, the two first respondents recommended additional contacts which resulted in additional interviews. The positive aspect with this strategy was that it gave me a direct link to people that might be relevant for the purpose of the study. Further, it could imbue me as a researcher with characteristics associated with being an “insider” of the company, which then makes it easier for the new respondent to open up and trust me (Atkinson & Flint, 2001).

The negative aspects with applying a snowball sample- strategy is that the strategy entails certain selection bias e.g., the choice of respondents are picked by a person that is not myself, which makes me as the researcher dependent on the respondents ability of making the correct interpretation of what I consider to be important for the investigation (Atkinson & Flint, 2001). Nonetheless, to avoid this error, certain measures were taken e.g., informing about the

purpose of the study. Nevertheless, multiple sources of evidence is required for securing data reliability and it was therefore important to talk to people with different positions and occupations. To include different voices from different directions is according to Yin (2014) important for achieving triangulation. With that said, the people that were involved in this paper had a direct or an indirect connection to the unfoldment of H&S work in practice. Thus, new interviews were performed until saturation was achieved. At this point 21 interviews had been collected. Saturation is according to Charmaz (2014) important and reflects a point where the researcher start to hear the same thing over again in the interviews. A limitation corresponding to the sampling strategy is that the sample size of this study is very small (Charmaz, 2014). Therefore, the quality of the data and the research objectives was crucial to take into account. Nevertheless, I did not seek generalizability in this case study but rather provide the reader with additional perspective of the phenomenon of employers engagement in H&S work (Charmaz, 2014). See table below for more information about the respondents that were taking part in this study:

Unit	Sub-Unit	Respondents	No.	Role Description	Why relevant in this study
<i>HR</i>	First line support	HR- Business-Partner (HRBP)	2	Support region- district- and project managers with coaching, jurisdiction, leadership, recruitment, pay review, leave, education, performance evaluation.	Responsible for the process after workplace incidents or accidents occur
<i>Health- and Safety</i>	Strategy- & Development	Health- and Safety Strategy and Development Manager (HSSDM)	1	Responsible for approximately 14 H&S Strategy Development Leaders and work with analysis, statistics, investigations, develop working ways and provide tools, education- and communication programs with focus on H&S- issues.	Responsible for receiving, interpreting and translating pure work environment laws to policies, guidelines and work instructions inserted in their internal management system "VSAA".
		Health- and Safety Strategy Development Leader (HSSDL)	1	Act as a project leader of different projects, developing new ways of working with respect to health and safety issues in their internal management system "VSAA".	
	Operational	Health- and Safety Manager (HSM)	1	Work with H&S on a regional level with strategic and long- term activities, acknowledge future needs in terms of education, resources, workplace introductions for new working ways. Translate the instructions in VSAA to make them even more applicable to practice.	Are specialist in Health- and Safety issues and are responsible for helping the employees on site to understand and work with H&S work rooted in the guidelines found in the VSAA- system.
		Health- and Safety Leaders (HSL)	4	Work with H&S on a district level, work directly with district managers, project,- planning- and production managers as well as employees on site. Supporting and controlling that policies and working methods are followed. Responsible for educating and informing employees in regards to H&S.	
<i>Operation</i>	Contracting & Projection	Project-Manager	1	Responsible for the construction of different project, including planning, communicating with clients, larger purchases, manning up projects by putting together a planning and construction team, create budget and ensures that the project are within the economical frames.	Are responsible for integrating H&S- aspects, the policies, guidelines and work instructions regarding H&S in an early phase of a project, mainly in the planning-phase.
		Planning-Manager	1	Working mainly with the planning of projects; plan, write protocols and investigate. Support the Project Manager with control of legal requirements, secure customer demands, producing documents, establish schedules and look through finance. Responsible for integrating health and safety aspects in the planning phase.	

Production	Site Manager	2	Has the formal responsibility for coordinating the work on site. Ensures that the site is enough safe. Sometimes participate in the planning-phase. Is responsible for creating and ensuring that they execute as they should and acts within the set timeframe. Communicate with subcontractors and own staff.	Are the ones working with coordinating the work and building on site where incidents and accidents usually occurs. Usually are the ones that are following the guidelines, policies and routines when proceeding with their daily work.
	Foreman	5	Is mainly responsible for planning the daily production, form the right pre-conditions on site, coordinating and communicating with different workgroups. Responsible for secure that everything proceeds in the right order and follows the timeframes. Creating the preconditions necessary for the workers.	
	Project-Engineer	2	Support the Site Manager with different purchases in relation to the project, finance, suborders and documentation.	
	Safety-Representative	1	Usually work as a carpenter and is elected by other employees to act as their representative. This person usually participate in safety rounds of sites, supporting the employer in the systematic work environment work.	

Data Collection

In order to gather data there were made two types of observations in addition to 21 in-depth interviews. According to researchers (Blatter & Haverland, 2012; Charmaz, 2006) observations are information that we find “out there”. In this study, physical and non-physical observations were made. The physical observations were taking place mainly out on production sites and were all together 7 hours long. The observations were performed through shadowing of managers working on site, where me as a researcher continuously took notes of what I observed. The physical landscape in terms of buildings, areas, rooms, text- documents such as health and safety posters and newsletter were observed in addition to clothing and how people acted. The main purpose of conducting these observations was to learn about the context which the managers working on site was a part of. Because the aim requires me to investigate how H&S work unfolds in practice, these observations were crucial for me as a researcher to gain necessary pre- understanding for the subjects.

As a complement to the physical observations, non-physical observations were made of the company's own website where background information of the company e.g., formal values, visions, goals and their “outspoken” ideas about health and safety was found. Secondary data were also observed e.g., work preparation documents, work environment plans received by the respondents in addition to documents such as the National Board of Occupational Safety and Health regulations on construction and civil engineering work. The main idea behind these observations were to gain pre- understanding for the rules and laws that formally guides this company in their H&S work. By doing both physical and non-physical observations helped me to get relevant pre- understandings for the company- setting. This ethnographic data in addition to previous literature was later used to form an interview guide used when conducting the 21 in-depth- open-ended and semi-structured interviews.

Each interview were between 30-90 minutes long where majority of the interviews were face-to-face and executed in Gothenburg. Skype- meetings were made with two respondents that were situated in Stockholm. The interviews were made physically on places where the

respondents felt most comfortable e.g., on Site or in the Gothenburg Office. The interviews were held in Swedish as this was the mother tongue for all of the respondents, this made the respondents more comfortable and able to express themselves in a more relaxed and easy way. Be that as it may, their answers were in the final stage of the writing process of this paper translated to English. The purpose behind doing face-to-face interviews were to better become able to capture face expressions, body language, gestures and pauses. In an agreement with every interviewee, the interviews were recorded. This was fundamental for the outcome of the interviews as I could completely focus on the conversation with the respondents instead of focusing on taking notes. Even if an interview guide were prepared, the majority of questions asked were of open-ended character simply because I wanted to let the respondents talk more freely. This is according to Kvale (2008) necessary in ethical studies. Furthermore, when recording the interviews also helped me as researcher later on in the transcribing process. This is according to Bryman & Bell (2011) specially true as when transcribing the recorded material as it enable the researcher to go back and control the data frequently.

Ethical Considerations

Before every interview, each respondent signed a letter of consent. This was relevant to do in order for me to achieve informed consent. In this letter all interviewees were informed about the purpose of the study and that the study was voluntary. For employee representatives to open up and share sensitive information, complete and full confidentiality and anonymity was given to everyone. The company brand, places and respondents name, age, gender, personal attributes has therefore been neutralized. To offer full anonymity and confidentiality is according to Yin (2014) crucial to receive informed consent. This was specifically important to consider, both for protecting the respondents privacy but also for conducting research ethically. Additionally, the respondents were informed that they could at any time leave the interview and skip answering any question given if they felt uncomfortable. When doing the observations and before doing the memory notes, recordings and taking pictures, I asked for permission to do so. A potential limitation with conducting the field material and processing could be that all interviews were held in Swedish which later required me to translate the material to english which can sometime lead to small errors and translation divergence.

Data Analysis

After transcribing the recorded material, a sorting and coding process of the data began. This process were inspired by a Grounded Theory approach divided in two steps: open coding and second order coding. The open coding is according to Charmaz (2014) when you as a researcher is very close to the material with little level of abstraction. Nevertheless, in the first step of the open coding process, I started to read each interview script line-by-line, paragraph- by- paragraph and page- by- page, where I named either pages or paragraphs with shorter summaries. When reading each script I asked myself “*what do this segment of text tell me?*”. An example of the thematic coding:

Collected data:	Example of code:
<p>"R- What are your spontaneous thoughts about following laws and regulations?</p> <p>I- Sometimes... in some situations i can feel that it's unnecessary to work with so much safety as we do...But I understand the point of it. The same rule imply for all but in production it can be problematic... this summer it was deathly hot outside. A lot of the guys were sweating and of course- at that time you just want to tell them to take off their helmets...sometimes it can be a burden to have that high level of safety..."</p>	<p>When company's rules and regulations regarding health- and safety becomes a burden.</p>

After more or less summarized each script, I continued with the second and last step of the Open Coding- process. This was where I started to create themes from the summaries by labelling the summaries. Still, under this part I continued to stick close to the data by focusing on meanings, situations, actions and processes. This is according to Charmaz (2014) called initial- coding. This part of the coding- phase helped me later to sort the data into themes. An example of initial coding:

Collected data:	Example of code:	Initial code with theme
<p>"R- What are your spontaneous thoughts about following laws and regulations?</p> <p>I- Sometimes... in some situations i can feel that it's unnecessary to work with so much safety as we do...But I understand the point of it. The same rule imply for all but in production it can be problematic... this summer it was deathly hot outside. A lot of the guys were sweating and of course- at that time you just want to tell them to take off their helmets...sometimes it can be a burden to have that high level of safety..."</p>	<p>When company's rules and regulations regarding health- and safety becomes a burden.</p>	<p>Laws and regulations</p>

In the second order coding I started to divide the codes from the initial coding into different and more abstract categories where each category consist of families of different codes. For example, when sorting the data into categories it became evident that the information could be sorted into three main categories: 1) general information about the industry or the company, 2) more detailed information about the company in terms of organizational structure and support functions and 3) information related to the work that is made and perceived challenges to that. However, after sorting out the data under these three “umbrella”- categories, parallels and patterns between them were drawn mainly by adopting focused- coding (Charmaz, 2014). In this part of the process, I therefore started to compare different segments of text from each interview script with each other to see if there were any keywords or categories that were frequently repeated. An example of focused coding:

Interview 15	Observation 1	Focused coding of patterns
<p>"I - But sometimes you get to be police here and run around and tell people... sometimes it is kindergarten here when you get to tell people all the time about obvious things. Many do not understand..."</p>	<p>"Observing that one of the painters and one Foreman on site don't using their helmet when cleaning up..."</p>	<p>Challenges with people ignoring personal safety equipment- rule</p>

After coding the empirical material, including both observations, secondary data and interviewees descriptions, bridging and parallels were drawn to previous research and the Decision- making theory presented above. By integrating the theoretical framework with the empirical data, where continuous analysis and shifting between gathered data and theory, an analysis could take form.

Empirical Section

Introducing the Setting: The Health- and Safety Organization

When turning to the field, listening to the respondents stories, experiences and perceptions of how H&S work unfolds in practice, it was evident that this company engage and invest a lot of resources in an organization with focus on health and safety. In fact, one particular unit within this organisation is called “Strategy and Development” and receives the governmental work environment laws. These laws are then interpreted and transformed in a way that should make them more understandable and applicable to the core business (Interview, HSM; Interview, HSSDL; Interview, HSSDM). According to the Health and Safety Strategy and Development leader (HSSDL) some important ingredients for making this translation successful is communication skills tied to the ability of understanding the core business “how it works”, this in turn requires enough knowledge, experience and particular competence. HSSDL says:

“the working methods have to work in the core business... but the problem is to make it user-friendly and business-adapted. It is not always easy for someone who does not have business understanding. To be able to work with work environment work, it is an advantage if you have good insights into what the business is creating...”

The Site Manager 2 who works in the daily operation never reads any laws or prescriptions in the daily work, but these are often broken down to guidelines, policies or activities in the firm's internal control system called “VSAA”. This system is available for every employee and consist of different documents, templates, work instructions for how to proceed with the daily work e.g., bids, planning production, handovers or warranty- issues (Interview, HSSDL; Interview, HSL 4; Interview, HSL 1). It's the employees working on an operational level that give life to these documents but many of those who work on site e.g., Foreman, skilled workers, subcontractors and even site managers usually don't have time to read these documents. Instead, much of the daily work is solved through communicating ideas and experiences with others directly on site (Interview 5, HSM; Interview, HSL). This means that the employees on site does not necessarily work directly with the VSAA- system. Nevertheless, the way for employees and Managers working on site to receive the information available in the VSAA- system is through communication with the Health- and Safety leaders (Interview, HSM). The Health- and Safety leaders (HSL) belong to the Health and Safety organisation and is the Strategy and Development- departments extended arm. The HSLs job is to translate (support), interpret and make the information in VSAA understandable. Further, they should communicate e.g., new working methods to the workers,

and create activities that the employees can engage in (Interview, HSM). The Health- and Safety Manager (HSM) explains:

“...the help consists of guiding them [employees working on an operational level] in how they *should* work in a structured and systematic way. Trying to find the risks, prepare and write different work preparations for different moments...”

Furthermore, the HSLs also monitor (control) and follow-up that the H&S work is performed by the workers as they *should* (Interview, HSM). The work by HSL originally depart from the governmental laws regarding SAM (see picture below):



Picture: Strategic Work Environment Work

For the communication to be successful, it require the HSLs to work close to the employees on site, in that way they can learn how to communicate with the workers and better understand the practical problems they usually meet. HSLs work are however not limited to the production phase, but they also support in the projection phase. Nevertheless, how the H&S work takes form in practice often depends on what phase the project is in. A project is usually divided into an idea, projection and production phase.

A Project's different Phases

Bid- and Idea phase

Before the actual building of a project can start, a bid- and contract process is taken place. An external customer e.g., the Municipality, want something to be built. Traditionally, the external client contacts an architect that do some sketches before sending out a request to different builders (Interview, Project Manager). In response, a builder answer with an offer that consist of broad description and quick calculation of the potential project. The bidding offer is formally produced by a project manager who is present in all of the projects phases (Interview, Planning Manager). To the project managers support there are planning managers and architects to name a few. However, how H&S work is prioritized within this stage is tied to the customers attitude and preferences for health and safety issues. Some respondents explained that when the customers prioritize H&S work they are more eager to put aside resources for working with it (Interview, HSSDL; Interview, HSL 4). If the customers don't have the interest for engaging in H&S work, it does not open up for making changes in the the pre-and detailed plans or later plannings and thereby integrating the H&S work. To create

a trust- relationship is therefore crucial according to the Project Manager. Though one respondent claimed that the firm do not enter a collaboration if the customer doesn't prioritize H&S issues (Interview 2, HRBP 2), while other respondents argued that it is more of a wishful state to become tougher on customers, making demands regarding health and safety. Today the company usually takes on request, even if the customer does not prioritize health and safety issues (Interview, Project Manager; HSL 4). The reason for that is according to the HSSDL that the managers seek revenue because of the pressure on sales and to achieve a certain turnover: "...primarily, we hunt turnover and believe that with a little luck we can save the result and hope that there will not be so many accidents".

Projection phase

Nevertheless, if the company wins the bid, the project manager together with the planning managers (PM) and architects start with more detailed planning. One of the PMs, usually a well experienced one is appointed with the role of ensuring that the H&S work is taken into consideration, coordinated and executed in the projection phase. The project manager make in this stage broader time goals and larger purchases in collaboration with a district manager and purchasing specialists. The project manager also engage planners from different disciplines e.g., electric, vent and so forth. Usually, a HSL also participates and support with knowledge regarding health and safety aspects. According to the HSSDL, a lot of time and resources are put on the planning part to ensure both safety and efficiency. To plan for a project is necessary according to many of the respondents (Interview, HSSDL; Interview, Project Manager) because if the projects does not have enough resources or does not make enough room for unexpected events in the time schedule, problems arise easily and the production staff have to engage in a lot of "fire extinguishing". Here, the project managers need to think about the preconditions and how they can be fulfilled in order for the work to be safe (Interview, Project Manager). The PM explains:

"It is very much to make a timetable, prepare for start- meetings, clarify what requirements exist for the project. Usually a lot of documents and organizational plans needs to be in place... you have to start looking at span widths, roof construction, that all accessibility dimensions are met and perhaps make a more in-depth technical examination. In meetings [workshops] you sit and carve into these details, you support and go through who should work with what, how windows should be inserted into different types of walls, how source ground should look... We also secure the list of materials and construction methods that we are not allowed use. In the end we usually check that all requirements are incorporated into action plans to avoid contradictions..."

Nevertheless, in the projection phase more detailed action plans together with the site manager are being that is later on suppose to guide the production team. This plan states how the work environment work in the production phase is formed e.g., through morning meetings or safety rounds, and it also states what risks and rules will apply for the specific workplace and how these risks are handled. How the H&S work is secured in this phase is usually shaped through work environment *workshops* and *checklists* (Interview, Planning Manager;

Interview HSL 1). The work environment workshops are opportunities where the projection team come together with an HSL and larger subcontractors (approximately 10-20 people) to meet and discuss health and safety responsibilities and implementation strategies. Together they add their expertise within a certain area. This is helpful for making the architect's writings become more grounded in reality (Interview, HSL 4).

The checklists builds upon the Swedish Work Environment Authority's demands of requirements regarding health and safety aspects. An example of one point in that checklist could be with regards to heavy building elements; what building elements are used and if there are specific safety measures specified in the work environment plan to name a few. This point corresponds then to the AFS 1999:3, 4-5,8 and 10-11 §§ that requires the builder to consider work environment in the projection phase, where the work environment plan contain specific measures needed for achieve safety. The problem with these checklist though is that they can sometimes be filled in too quickly and also in a more routinized way according to the PM. The PMs job is to ensure that these checklists are in order, but when someone have done it without reflection the PM thinks it has to do with the person's inability of knowing what to look for when controlling things. Still, the PM explains that this error usually is solved during workshops where the employees gets the opportunity to meet and discuss to clear things out.

Production phase

In the production phase, the focus is upon constructing the building and this work usually departs from the detailed action plan made in the projection phase mentioned above (Interview, Foreman 3). The site manager has been given the overall health and safety responsibility on site, and in the beginning of the production the HSL usually together with the site manager discuss and creates a plan for how the HSLs support is going to look like during the project (Interview, HSL 4). To the site manager's support there are foremen, project engineers and safety representatives where the foremen ensures that the collaboration and coordination on site works well. Foreman 2 explains that the job implies to assist with material and coordinate the work between subcontractors and own staff in relation to the timetable; a work that seek to make sure that everyone working on site can do so in a safe way (Interview, HSM; Interview, HSL 1).

However, production sites usually gets rather crowded as many subcontractors are in place, to coordinate the work properly as part of the Execution Management (including foremen and site managers) is therefore crucial as the level of risk can quickly increase as the amount of people working across each other increases (Interview, HSM). What many of the managers participating in this study agreed upon was that the company are dependent on subcontractors for many different reasons e.g., they are the ones executing most part of the building and are also responsible for several services such as plumbing, electrical, flooring and painting to name a few (Interview, HSSDL). Subcontractors are part of their business strategy and hiring subcontractors are one way for the company to be cost efficient and competitive on the

market (Interview, HRBP 2). Every subcontractor has its own work environment responsibility to its own employees (Interview, HSL 1; Interview, HSL 2), but the one coordinating the work has to make sure that this is performed in a way that accidents and incidents can be avoided. The HSL 4 explained how the coordination can play out in practice:

“...we are responsible for creating the safe conditions that are needed on site. Let say there is a painter that’s dealing with toxic color when painting the walls on a building. This painter is employed by a subcontractor that has provided this person with enough safety equipment to ensure this person's health. But close to this painter, there is another group of carpenters working for another subcontractor, sealing a roof. They are provided with the right equipment by their employer, but not for protecting themselves from the toxic paint nearby. In this situation, we have to make sure that the carpenters are out of harm, and not exposed to any chemical health risks- by requiring the painter to shift products to a less toxic product, or if that's not enough, to block others for working nearby”

Still, different measures are inserted in terms of activities to endure the health and safety of the employees through e.g., *workshops, e-learnings, safety introductions, morning-meetings, safety inspections, risk inventories* and *work preparations* to name a few. The HSL usually support in some of these activities. For example the HSL is responsible for creating and providing the employees with workshops, education- opportunities and also support subcontractors with the mandatory risk inventories and work preparations (Interview, HSL 1). Foreman 3 further explains that every new employee on site are going through a rather comprehensive training- program including e- learnings. The aim with these activities is to make sure that the employees understand their responsibilities. One example is when every worker has to use personal safety equipment on site. The workers get to learn about the working ways, policies and methods of the company and specific conditions and risks that applies to the specific site (Interview, HSL 4). The employee are also notified with the consequences that will follow if the rules and working ways are not followed.

During the introductions and continuous workshops provided by the health and safety organisation, the employees are trained to prioritize health and safety in their daily work which in turn creates a safety culture within the company (Interview, HSM). A safety culture aim to shape people's attitudes to risk and time e.g., if someone sees someone takes a lot of risks or are too much in a hurry, other colleagues should step in and talk to that person to make this person more attentive (Interview, HSM; Interview, HSL 1). Nevertheless, it is important to slow down the tempo, to work with work preparations and give room for changes in the time schedule to make this reality says Foreman 2. The HSSDL mean that:

“... no matter how much a health and safety leader tell the site manager to fix certain stuff. If the site manager want to do another prioritization, maybe because they don’t have time... there is nothing the health and safety leader can do about it...”

Furthermore, in the execution process, continuous communication is being made- directly but also through morning meetings and safety rounds held by the Foreman or Site Manager.

During the morning meetings the foremen usually go through the plans for the day, transports, risk filled areas, ongoing activities and check up with work preparations that should be made before working (Interview, HSSDM; Interview, Foreman 1). Furthermore, the HSL, the safety representative, a foreman or site manager and sometimes in large projects, a subcontractor attends to so called “safety inspections”. These safety inspections take place approximately once a week and is an opportunity for the execution management to observe the site area and go through new upcoming risks and identified flaws (Interview, HSSDL).

Risk Inventories and Work Preparations

Even if subcontractors are important for executing the work, the collaborating with subcontractors come with certain implications according to the respondents. Risk inventories and work preparations are documents which each subcontractor have to hand in before the work can start (Interview, HSL 1). This exchange usually takes place during “start meetings” (Interview, Project Manager; Interview, HSL 4). In start meetings the HSL go through fundamental aspects with the subcontractors e.g., informing how to act and work on the workplace, go through risks and usually controls and gathers work preparations and risk inventories from the subcontractors (Interview, HSL 4). The risk inventories explains the different risks with each work task and how the subcontractor is handling the risks in the safest way (Interview, HSM). Work preparations are documents that explains how a work activity is going to proceed. Still, both these documents are mandatory to be in place according to the Swedish work environment law, but in practice though many skip doing these work preparations (Interview, Employee representative). They are usually done orally or someone write down on a plasterboard because the templates that needs to be filled in are perceived as too comprehensive according to the Employee Representative and says:

“If a small subcontractor is employed to achieve a five minutes job, and you know that the work preparation takes about 40 minutes to do...it's obvious that you skip doing it!”

The HSL 1 admits though that these documents are rather comprehensive, and even as a HSL it can sometime be perceived as difficult to keep track of all demands and requirements that needs to be met. Thus, according to some respondents many of the subcontractors do not have the proper knowledge in how to handle the systematic and administrative paperwork—they are good in proceeding with their area of expertise (Interview, HSM; Interview, HSL 4). Furthermore, the Site Manager 2 explains that the firm has revised many of the subcontractors work preparations and risk inventories. However, the company can be much more accurate in controlling these work preparations so they are correctly done according to HSL 4. Still, it is a time aspect to consider, and foreman cannot be everywhere and control every work preparation that is made due to the time pressure they often experiences (Interview, Foreman 4). Instead, they have to trust that the subcontractors are doing the job they have signed up for (Interview, Foreman 1).

Because the work can be delayed due to missing work preparation or the quality of these documents are too low, many of the respondents agreed that it's better that they- mainly HSLs, site managers or foreman help or do these work preparations or risk inventories for them (Interview, Site Manager 2; Interview, HSL 3). In that way they can avoid being delayed and the quality of the work preparations are secured. Still, there are some critical voices arguing that the subcontractors are being “served” when the firm should in fact be tougher on the subcontractors (Interview, Foreman 2; Interview, HSM). Still, one site manager was encouraged to be “tougher” on the subcontractors but he said that: *“no subcontractors will be able to build for us if we would demand them to collect these documents, because no one is barely doing a risk inventory in the industry”*.

One main reason for why the company support the subcontractors with risk inventories and work preparation is according to the HSM due to the subcontractors lack of resources. The HSL 1 explained that the smaller firms don't have the financial resources; the money to invest in plans or competence development, nor do they have people that only work with administration. Nevertheless, as a large construction firm and job provider for many smaller firms, it is almost expected that the larger firms should support in this matter (Interview, HSL 4; Interview, HRBP 1; Interview, HRBP 2). In the end, if something would happen it would mean bad publicity for everyone, particular the company (Interview, HRBP 1).

Use of Safety Equipment

Despite mentioned H&S activities above, the individual employee are also expected to wear personal safety equipment on site including helmets, glasses, gloves and safety clothes (Interview, HSL 1; Interview, Foreman 2). This is demanded even when the building is close to finished. The company has a high safety level and according to Foreman 1 this can sometime become a burden, especially when it comes to the safety equipment. Foreman 2 says: *“...sometimes when you work outside and it rains, you can barely see through the glasses when they fogg again”*. Foreman 1 mean adds that:

“...if you have worked with glass for example and have got something in your eyes, you should not according to the policy take the gloves off, but if you do not, you might get glass in your eyes if you want to take it out with your hands with the gloves on...”.

Thus, the company has its own H&S policy e.g., the use of health and safety equipment (Interview, Project Manager). But even if subcontractors working for the company have in written agreements accepted to conform to these safety rules, many of the subcontractors are not familiar with working with H&S work. In the same time, if the company's own staff don't act as role models it can become extra challenging (Interview, Project Manager; Interview, HSL 1). If one person working for the company takes off the helmet and someone else sees it, the risk is that this other person sees it and thinks it's okay to take it off (Interview, Foreman 1). However, the Project Manager explains that under certain situations where the helmet is

obstructing the job task, the individual worker can take it off, but the problem arise when this person forgets to put it back on.

In addition, the subcontractors are too often occupied with working as quick as possible, it becomes more important to work fast than do something safe e.g., when there is a panic regarding the timeframe, it is common that they do another prioritisation not always in line with the company's health and safety ambition(Interview, Safety Representative; Interview, HSL 2). This was also confirmed by HSL 1 who mean that some subcontractors have a hard time to reach the high level of safety due to the time pressure that they usually face. The consequence followed from high time pressure and focus upon costs is that subcontractors have tendencies to haste when proceeding with the work tasks (Interview, HSSDM). This was then confirmed in the observation of one painter who said that the cleaning afterwards are usually not included in the job, and many of the painter's colleagues skip doing it, even if they risk to breath in dust and get skin reactions. Another example where the time pressure seemed to steer the behavior of subcontractors was explained by the HSSDM:

“...we had a situation where there were a bunch of painters painting a ceiling. You had to climb up on this ladder and if you wanted to move it, you had to climb down and move it and then climb up again. But the painters did not wanted to go up and down, because it took too much time... so instead they started to push it forward while they were up on the ladder, which is forbidden”.

Many of the subcontractors work under extreme time pressure and when things are handled in a rush often leads to several mistakes being made e.g., updating of work preparations risk to be forgotten, which can create challenges for other work groups to understand what has been done. These misunderstandings can then lead to delays. When the foremen encounter stressful situations they have to prioritize because there is no time and sometime focus on health and safety e.g., the use of safety equipment are set aside (Interview, Foreman 1). Foreman 1 explains:

“If I see a subcontractor being stressful and sad due to overload of work because of several mistakes being made by different people, and he starts to complain about the many costs it will mean for him, how he don't have anyone that can help him... it's not that I interrupt him and start telling him how much he needs to put his glows on, then I don't say anything because he might crash any minute due to the pressure... however, if I see a direct danger I would certainly notify him...”

Thus, when there are a lot of people not using their equipment can lead to a situation where the foremen or site manager feel that they have to nag on the workers all the time (Interview, Project Manager; Interview, HSL 3). Many of the site managers gets eventually tired on doing this as they usually have done it so many times. The Project Manager explains:

“It is not that they [foreman or Site Managers] don't dare to say something if someone is cheating with wearing the safety equipment... but when you notice and never get a response you get tired eventually!”

The foreman, site managers or HSLs usually notify orally to the person that is sloppy e.g., with the safety equipment (Interview, HSM). That implies also on situations where people have transgressions e.g., climbed up on heights without fall protection (Interview, HSL 1). The HSL 1 were one day out on site and saw a metal worker up on the roof working without any safety barriers or fall protection. This person could risk to fall down, but when the HSL notified the worker about it, the worker was surprised over the reaction. This was according to HSL 1 typical as this worker has become “blind” after been exposed for too long to the high risk environment. Continuously, if the employee still does not change after a couple of warnings, the subcontractor risk penalties and under severe circumstances the firm can cancel the collaboration (Interview, HSM; Interview, Project Manager). Thus, usually they pursuing with the collaboration anyway. Foreman 2 mean that the company are too kind to the subcontractors deviations, but if they would end the agreement the whole project would lose productivity as it takes time to find a replacer. In other words, time pressure and budget can sometime steer the decisions being made here (Interview, Project Manager).

Discussion

Departing from the empirical data above, this paper has been able to present how H&S work unfolds in practice. A number of activities connected to H&S work have been revealed and a number of challenges with H&S work were perceived by the managers taking part of this study. Nevertheless, when analysing this data with the help of decision making theories, in particular the Logic of Appropriateness in contrast to a Logic of Consequence (March, 1991, 1994; March & Olsen, 2008a-b), potential challenges with H&S work can be explained beyond the need of resources and activities as such. By bringing in the human factor into the calculation and how people take certain decisions, the complexity with H&S work are more than just about having resources and activities in place. In fact, people taking part of this study shaped H&S work in multiple ways through their decision making. With the help of the logic of appropriateness lens in contrast to a logic of consequence, the discussion below will demonstrate several situations from the case that points to the fact that people does not always make rational decisions in terms of following strict rules of how they *should* work with H&S. These insight can help explain the comprehensive work behind H&S workplaces and thereby shed light on the difficulties with H&S work rooted in work environment law.

A “perfect” translation?

When analysing the data, the H&S work starts already from when the work environment regulations enters the firm through the HSSD department. From a logic of consequence, when authorities insert stricter laws, construction firms should just follow them (March, 1994; Perry, 2000). The individual employer are expected to take immediate action that adhere to these rules, because if they do not, they would as previous research confirms meet a

lot of negative consequences that can threaten their very existence (Perry, 2000; March, 1994; Arbetsmiljöverket, 2018b; Svenskbygggtidning, 2018; Hall et al., 2010). This argument is very much in line with a rational way of thinking and as the logic of consequence entails, decisions are made upon a cost- benefit calculation (Perry, 2000; March, 1994). But to “just adhere” to the governmental regulations require thus a lot of work, collaborations, resources and most important: people, taking decisions based on a rationality where actions are made in line with the regulations that exist (March, 1994). This was nevertheless seldom the case.

When laws enter the firm, these are interpreted and translated within the firm. The employers are required to translate the laws necessary according to research (Michael, 2006; Arbetsmiljöverket, 2018c; Cheng et al. 2015). For example in the case it was evident that this translation was first executed by HSSDLs to documents e.g., work instructions, policies, guidelines that are to be found in the VSAA- system. These are again interpreted and translated by the HSLs that are responsible for communicating and constructing activities e.g., workshops for the employees working on an operational level. The employees working on an operational level are then expected to interpret and translate these instructions and activities. Thus, just the fact that there is a specific department responsible for translating the laws could be a sign that the laws are imperfect from the very beginning. As previous research (Michael, 2006; Cheng et al. 2015; Baxendale & Jones, 2000; Bardach & Kagan, 2002) confirmed, laws and regulations seek to target everyone and it would therefore be impossible to say that each and every law would fit with the context of every organisation. In fact, according to the Konkurrensverket (2018a-b) laws and regulations can not fit with every organisational setting. This was also confirmed by Alarcon et al. (2016) arguing that no single formula exist. In that case, it would require employers to interpret the laws and translate them to fit with the firm's specific context (Arbetsmiljöverket, 2017). This would according to March (1994) not come as a surprise, because we live in a world filled with uncertainties where not all alternatives are known and therefore it would be more realistic to say that some translation is required. Yet, this translation also come with certain implications (March & Olsen, 2008a-b).

If all of these actors would make decisions purely built upon rational choice it would probably not constitute a problem for the employers engagement in H&S work, as the work is then perfectly rooted in the law requirements (March, 2004). However, with the help from the logic of appropriateness, this framework also explains that there are people to consider as well that take decisions shaped by different roles and informal rules that exist in different situations and not only on pure rationality (March, 1991). In fact, from a logic of appropriateness perspective, it could be assumed that the HSSDLs translating law to policies, the HSLs translating policies to activities, and the employees performing these activities by interpreting them and learn from them but do so in different ways- simply because individuals suffers from cognitive constraints which makes these people unable to make “perfect translations” (March, 1991; Langford et al. 1995). In fact, what one person perceive as “perfect” might not be perceived as perfect for someone else (Weber et al. 2004). Instead,

peoples plurality; different attitudes, personal traits, interests, perception of things, experiences and so forth, can explain why the translation of laws and regulations are most of the time imperfect (Weber et al. 2004; Bommer et al., 1987; Khosravi et al. 2014). For example, in the role as HSSDL the success of translating was tied to how well the individual translator knew the core business but being a good translator then seems to mean in this case to be well experienced of the daily work (Weber et al. 2004; Hiekkataipale & Lämsä, 2015). However, if the translator lack experience the risk is that the employees on the floor don't understand the instructions and thereby are incapable of acting upon them. In the same time, it could be that the translator have the required experiences of the core business, but understand the laws and regulations differently then someone else with the same experience would have understood them (March, 1994; Sending, 2002; March and Olsen, 2008b).

Built upon the discussion above, it could be interpreted that the HSSDLs ability of translating laws are not only built upon individuals work experience of core business, and how well this person is able to make use of this experience in the situation (translation process), but it also depends on how well this person understand the laws and regulations per se and how well they fit with the context they are targeting (March, 1994). As previous research confirmed, the laws and regulations can sometimes be many, unclear and have inherited properties that can make it hard for the individual employee to understand what the laws actually mean and can constrain people additionally in the translation process (Zuber, 2015; Healy and Niven, 2016; Bommer et al., 1987; Fong Ho, 2011; Khosravi et al. 2014).

“Safety First” but only if the Customer want's it ...

Above, the difficulties with translating the laws that sets the foundation of H&S work was discussed. Still, even if the people working internally with translating and succeed with matching the governmental laws and regulations with the practice of construction, one factor that is affecting the H&S work was the customer requesting the builder to take on certain projects. That the customer could steer the outcome of firms H&S work was evident in this case and was also something previous research confirms; the customer has the purchasing power to invest or not invest more money for the sake of safe construction (Delmas & Toffel, 2004; 2008). However, when analysing this case, the company wanted to work towards the policy of not taking on customer request, if that in the same time would threatening the health and safety of the workers. From a logic of consequence (Perry, 2000; March, 1994), the people responsible for the business affairs would not take on the affair if the preference for health and safety issues would be more prioritized, knowledge of the consequences of what unsafe workplaces could lead to e.g., accidents, bad publicity and this in turn are valued higher than seeking for profit and revenue (Arbetsmiljöverket, 2018b; Svenskbyggtidning, 2018; Hall et al., 2010; Maskinentreprenören, 2018; Kines & Mikkelsen, 2003).

Nevertheless, what this case could show was that the people responsible for business opportunities (project managers) seldom deny customers request. In fact, analysing this situation from a logic of appropriateness lens, it could be assumed that not taking on request

would not be appropriate in the role of being a good project manager (read salesman) (March, 1994; March & Olsen, 2008b). Also, what March (1994) argue is that if the individual does not conform to the rules that conform to the behaviour of being- in this case a project manager, the person risk his pride and risk to be accused of lack of propriety.

Even if the company have an outspoken rule about not taking on request if the health and safety of workers cannot be secured, the rule of achieving organisational profit was more important. According to previous research ethics rules of how to behave can actually under circumstances be in conflict with organisational profit goals and can lead to situations where rules are ignored (March, 1994; Orren & Skowronek, 1994; March & Olsen, 2008b). It could in the same time be understood that the people taking these decisions finding themselves in a role and in situations where the rule of reaching financial goals are more prioritized. Previous research could in fact confirm that employees that are exposed for an environment where managers prioritize performance over doing things in the right way are more likely to cut corners (Reedy, 2017). However, when performance goals are in conflict with other goals such as achieving healthy and safe workplaces was according to researcher one explanation for why companies have a hard time with H&S work engagement (Healy & Niven, 2016; Hu & Chopra, 2016; Reedy, 2017). Thus, that people follow rules that are perceived as rightful and prioritized by other people and friends located close to this person is according to March (1994) not so strange and can in fact motivate and justify the decision- maker's decision.

“Planning is the most important thing”

What was mentioned above was the difficulty of complying to the policy of not taking on request if customers were not willing enough to invest in H&S issues. However, what was evident in this case was that the customer's willingness in investing in H&S work was crucial for how the planning of a project would take form. That planning is important was also mentioned by Baxendale and Jones (2000) when it came to H&S work. Further on, that the customer have an important say in H&S work was confirmed by research arguing its importance (Bommer et al. 1987; Ford and Richardsson, 1994; Mohamed, 2002; Khosravi et al. 2014). However, in the same time, according to the work environment laws the employer should plan to avoid ill health and accidents at work (Arbetsmiljöverket, 2018e-f). The law also state that the agents that are appointed to secure H&S work in the different phases e.g., the projection phase, needs to have enough resources for being able to achieve this (Arbetsmiljöverket, 2016; AFS 2003:4). Nevertheless, this was not always the case.

From a logic of consequence (March, 1994), the planning would be perfectly matched with the law requirements where the employer set the basic conditions for securing health and safety, this after made a clear calculation of the consequences that would come if they do not e.g., accidents, misunderstandings, stress filled environments, lack of equipment and so forth (Arbetsmiljöverket, 2018e-f; Svenskbyggtidning, 2018; Hall et al., 2010). Thus, when analysing this case it was evident that decisions were made by people working with planning projects that also led to severe outcomes. First of all, this was evident when it was highlighted

that PMs can sometime fill in the checklists- a safety measures for ensuring that the health and safety aspects are integrated and taken into consideration into the plans- in a more routinized way without actually knowing what that actually meant. Taking previous research into account, this could probably be explained by individual factors e.g., this person have certain personality traits that make this person more inclined to act accordingly (Zuber, 2015; Healy and Niven, 2016; Bommer et al., 1987; Fong Ho, 2011; Khosravi et al. 2014). Having the checklist is one way for the projection team to control that the H&S work is integrated. On the other hand, in the light of a logic of appropriateness, this action could be explained by the fact that rules can be ignored simply because the decision maker lack the competence of the rules (March, 1994; Orren & Skowroek, 1994; March & Olsen, 2008b).

However, in the same time, it could be that this PM working very close to the project manager and become influenced by this person and adhere to the same rules as the project manager conform to e.g., profit goals and revenue seaking. This is crucial according to March (1994) meaning that individuals can actually recognize the situation at hand and excel the identity that the work group or friends excel to be most important e.g., being a good and coping colleague means to prioritize keeping the timeframe or achieving organisational goals in terms of revenue. This goes in line with Choudry and Fang's (2008) reasoning about how managers attitude towards health and safety and how that can actually encourage others to take on similar attitudes, an argument that goes in line with researcher arguing that H&S work can be affected by organisational factors such as goal setting or management (Bommer et al. 1987; Ford and Richardsson, 1994; Mohamed, 2002; Khosravi et al. 2014). It could however be understood that if the PM actually do lack competence for knowing what to fill in, it could be interpreted that not enough resources are given- either that right competence are recruited from the beginning or the planning manager are not given the right internal training.

Second of all, even if a situation was evident where some PMs were quick in filling in checklists, and even if the firm formally says how important it is with planning, many of the respondents working on site complained about lack of good planning and how flaws and inadequate planning have led to confusion, delays, several mistakes being made which in turn increased the stress level among the workers. This goes in line with Baxendale and Jones (2000) discussion about the importance of proper planning as it would then lead to several failures. From a logic of appropriateness lens (March, 1994) though this would not come as a surprise because PMs have different roles, adhering to other set of rules and acting in completely different situations. In the same time, the plans that are being made are done so by people that have different perceptions of things and even if they think the plan is fully accurate and "perfect", it should not be assumed that it will be interpreted in the exact same way by the people that are reading it (Weber et al. 2004; Hiekkataipale & Lämsä, 2015).

Risk inventories- A risky business?

Previous section was about the importance of planning and how rational choices about how to proceed with planning not always fit with the real world. In fact, it was evident that there were a lot of voices telling how problems occurred due to lack of or failed planning. Yet, when analysing situations where people did not always make rational choices built upon perfect information, it was also evident that subcontractors are supposed to provide the firm with risk inventories and work preparations. To hand in these documents are according to the law mandatory or else the firm could be targets of different means e.g., penalties (Arbetsmiljöverket, 2018e, g; AFS, 1999:3; Arbetsmiljöverket, 2018a; Aftonbladet, 2019). Therefore, from a logic of consequence (March, 1994) it would be assumed that the subcontractors are providing the builder with these documents and they are in the same time of satisfying quality, because the consequences of not handing them in would mean that the work cannot start, they would be delayed and the smaller subcontractors might lose their job if they do not deliver in time as the time pressure for deliver is high (Windapo et al., 2013; Manu et al., 2013). Still, when analysing the empirical data this was not always the case. In fact, it was rather unusual that the subcontractors putting time and effort in doing and deliver these. Instead, the HSLs or the foremen supported in this matter.

From a logic of appropriateness perspective, the decision in helping the subcontractors with risk inventories and work preparations could be explained by the fact that many of the ones taking on this request answer to different rules and roles in the situation where the actors understand they have to help out (March, 1994; March & Olsen, 2008). In the role of being a foreman or a HSL there are different rules that they seem to adhere to. Some respondents explained that they help out with the documents because if they do not, the project will suffer and the productivity will be affected. This corresponds well to rules of how organisational profit goals needs to be considered (Healy & Niven, 2016; Hu & Chopra, 2016; Reedy, 2017). In the same time, many respondents argued that they simply have to do this work because they have to make sure that these documents exist in the first place and that the quality of these documents fulfill the legal requirements, because if there would be a control the company risk to encounter bad publicity. This was also confirmed in reports made by the Swedish Work Environment Authority (2018b) informing how accidents can lead to negative public images.

The argumentation above goes in line with the measures that exist today as the Swedish Work Environment Authority control and if that control does not fulfill the legal requirements, firm risk to encounter penalties and even shutting down of business (Arbetsmiljöverket, 2018a; Psomas et al., 2011; Aftonbladet, 2019). Others do it because it would be good for the collaboration. Listening to the respondents different motivations, it was evident that a choice had to be made whether or not they should help out with risk inventories and work preparations. In this case, it was rather clear that they did help out, but how they motivated this decision was different and the reason for that could probably be because they might be targets of different set of rules (March, 1994). The project manager, the site managers and foremen explained how importance it was to do it, or else the project

would suffer in terms of productivity. Obviously, the rule of achieving profit was deemed as the ultimate goal (Reedy, 2017). The HSLs argued that if not- they would under a control risk different measures. The HSLs are the messenger of work environment laws and regulations, and for them health and safety issues are deemed as most important. The majority of the HSLs and HR meant that helping out would give rise to a better collaboration.

Safety First - The issue of personal safety equipment

Why HSLs and foremen help subcontractors with risk inventories and work preparations when subcontractors actually have a work environment responsibility towards its own employees (Arbetsmiljöverket, 2016) was discussed above. According to the company's health and safety policy regarding safety equipment, the individual worker have to wear safety equipment on site, and if someone sees another person having an unsafe behavior others should notify this person. From a logic of consequence (March, 1994), individuals including foreman working on site would coher to this rule as the consequences of not could lead to injuries, accidents but also violation against written agreements which could lead to discontinued cooperation and thereby stop in the production which would be bad for the productivity of the project (Cheng et al. 2015; Ikpe et al. 2011; Arbetsmiljöverket, 2017b). Nevertheless, when listening to many of the respondents stories it was evident that many subcontractors and even their own staff violate this rule rather frequently. To understand why this rule deviation happens, one example will be given more in depth below.

In the empirical section above, it was evident that Foreman 1 encountered a *situation* on site that was perceived as stressful. All of the workers including other foremen and site managers were acting stressed whereas the foreman knew the reason behind the situation. Foreman 1 knew that the stressful situation had occurred because of bad planning, the timeplan had collapsed and there were lack of communication between management and subcontractors. To have enough resources was according to previous research important or else sustainability issues might be thrown out of the window which this case could show (Cheng et al. 2015; Baxendale & Jones, 2000; Bardach & Kagan, 2002). Thus, the consequences of the mistakes were targeting the subcontractors. The subcontractors were acting stressful as they did the job task in a hurry, work preparations were not made and they continuously complained about the time aspect. The subcontractors complained about how much they had to do, that they were too few achieving the work and how stressed they were as they lagged behind. The foreman were probably listening to this, interpreting the situation as stressful where the focus by everyone was to be finished in time due the heavy workload to deal with. In this stressful situation Foreman 1 was on site passing a carpenter working with no gloves but the foreman interpreting the situation as non- riskful, so the foreman did not notify the subcontractor to take on the gloves. That subcontractors don't follow the same rules as the larger firms were by previous research confirmed (Fagerfjäll, 2009; Sveriges Byggindustrier, 2018; Windapo et al., 2013; Manu et al., 2013) especially when it would mean a lot of cost for the subcontractors. In this situation, more working hours. Still, the reason for why the foreman

did not say anything was because that was not the appropriate thing to do in that situation. From a logic of consequence, it could be expected that this foreman would stop the work and demand the worker to put the gloves back on- because that is what a Foreman do: coordinate the work and make sure that everyone are using their safety equipment and following the set rules, because if they would not be followed, the consequence of not telling the worker could be that this person could hurt himself and it would lead to delays (March, 1991, 1994). However, the inappropriateness of notify in this situation could be explained by the help of a logic of appropriateness model (March, 1994). As explained above, the situation could be interpreted as stressful, the rules that should apply in this situation were the policy of using safety equipment in addition to the policy of notifying when co-workers acting too risky and stressful. But the foreman does not interrupt and notify the worker because of two main reasons.

First of all, when the foreman encountered the situation as being stressful and listening to the workers, the majority of workers followed the rule of being finished in time. Possibly because this was the rule that was perceived as the most rightful one by the majority of people working on site in that situation (March, 1994; March & Olsen, 2008b). That the stress level and deviations from following the policies was rather accepted by everyone could be due to the macho culture described by Choudry and Fang (2008) where the worker have simply become too blind to their environment as they don't see the risks with their behavior.

According to March (1994) this would not come as a surprise as the rule of using safety equipment had been overlooked as it did not fit with the situation at hand and was now in conflict with the rule of achieving organisational profit goals or being finished in time (March, 1994; Orren & Skowronek, 1994; March & Olsen, 2008b). That a trade off occurs is according to researcher rather similar (Cheng et al. 2015; Baxendale & Jones, 2000; Bardach & Kagan, 2002). In this situation, it was obvious that the rule of wearing safety equipment was deemed as irrelevant and thereby overlooked (March, 1994; March & Olsen, 2008b). In the same time, the foreman, that according to March and Olsen (2008b) can have multiple identities, probably shifted identity from being the foreman to become a fellow human being helping another co-worker out. To change identity like this is according to March and Olsen (2008) common as when the context shift so might the identity shift as well, and especially if the foreman in this case interpreted that the majority of workers seemed to excel this identity as more important (March, 1994).

Conclusion

This paper started by emphasizing the importance of H&S work for dealing with potential challenges experienced within the construction industry. To investigate and understand how H&S work was deemed important. An in- depth investigation of a large Swedish construction firm's engagement in H&S work, and how it unfolds in practice has been presented. What this particular case could show was that despite the constant inevitable project- based work,

the construction work consist of many different activities and people acting upon these activities in numerous ways.

For integrating health and safety, the health and safety department was translating work environment laws, while the HSLs communicated and forming different events which were important for passing forward the legal requirements in the company. For the project in general, the customers prioritization on health and safety steered the projection work as the customers purchasing power set the foundation for the amount of resources available for planning. For the projection team however, workshops and checklist were two activities that enabled them to integrate H&S- issues in the planning, thus if profit making was valued higher than health and safety, it did not seem to matter how many workshops and checklists that were evident or how much the firm outspokenly wanted to work with H&S; if the resources were not put in- it would constrain the projection team and their work of planning for health and safety. In the same time, for the people working on site, activities came in numerous forms: safety introductions, workshops, morning- meetings, safety rounds and risk inventories to name a few. But no matter how much employees were introduced and educated to think and behave in a way that enhancing health and safety- if basic conditions were missing in the plans, the work with H&S work would continue to meet challenges.

However, even if this case could show that H&S work demands a lot of activities, resources of different kind, effort and thought, it could be said that *how* people actually are working with health and safety could be explained beyond having the resources and activities in place. Having the resources in place were crucial, but in the end- its always up to the individuals; the employees, managers and subcontractors to take decision in whether or not- and how they want to act upon these activities that are in line with the health and safety policies and governmental laws and regulations. This decision- making is then influenced by a numerous things and with the help of the theoretical framework, it became evident that when people engage -or not engage in H&S- activities, their decision making is not only built upon the calculated expected consequences, but also people's perception and interpretation of informal rules and the situation at hand shaped the H&S work and how it unfolds in practice.

In this study, it also became evident that people do not always take decisions in terms of if and how they are engaging in H&S work in line with what they *should* do, or what the firm formally state that the company should engage in- rooted in governmental laws and regulations. But by the help of the logic of appropriateness framework it was evident that people make decisions built upon informal rules that can be in conflict with what the law require the employer to do. It was also evident that people most of the time encounter informal rules and different situations but interpret these depending on who they are and what role they play. It would therefore be naive to say that safety aspects are always prioritized first in this case, even by an actor that are in frontline with engaging in health and safety work.

People interpret things differently and when laws already from the beginning have inherited properties that are difficult to understand, makes the translation of law to practice rather complex. By having this in mind, it could be understood that the work underlying H&S work are not always simple nor clear cut. Therefore, by saying how firms should behave and act when it comes to H&S work rooted in law can act as a guidance for companies engagement in H&S work. But explaining how firms can work in practice, would be to transform something complex to something simple when H&S as the organisational world is contextual, filled with ambiguities and complexities which would only make a simple recipe labeled as “unworkable”. However, this is something that authorities should have in mind when constituting laws and regulations as there are contextual limitations with how well laws and regulations fit with the organisational context.

Limitations and Future Research

This study has been able to investigate H&S work from a wider perspective, taking the whole process into account- from when laws entering the firm to when they are translated and acted upon within a construction firm. How the practical work unfolds insights into the complex work that lies beneath work environment laws but also practical work methods and techniques could be drawn. In that sense, I have been able to fill the gap between theory and practice; a crucial perspective to address in times where more incidents and workplace accidents are frequently reported as a direct consequence of lack in H&S work. To look into one specific case was crucial in this paper as it would allow me to go more into depth and to follow the different people working for different departments and the different project phases of construction work. Nevertheless, by looking into one single case also constituted certain limitations regarding the generalization. Hence, for future research it could be interesting to conduct a similar study to compare differences between how H&S work unfolds between a small and a large company.

Even if the company of this paper could be seen as a role model that many other firms look up to, and even if they also have more financial assets to invest in health and safety issues, this study shows that despite the financial resources and activities in place, large successful actors can still meet challenges with H&S work. Nonetheless, when turning to the field and investigated how H&S work unfolded, many different challenges were evident- challenges beyond the ones presented in this paper which future research could take into consideration. Another limitation with this study was the use of the theoretical framework. In this paper, the logic of appropriateness model helped me to interpret the empirical data from another perspective but the use of this model also opened up for a lot of ambiguities. The model could be applicable to almost everything or every situation and this goes in line with the critique pointing to the fact that the model can be inefficient due to its abstract character.

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