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"There is no right answer-sort of feeling"

The process of going from gut feelings to rational thinking in decision-making situations.

Master's thesis in Master of Science in Counselling

Supervisor: Jonathan Reams

June 2020

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An Interpretative Phenomenological Analysis on the way's leaders organize their perspectives on decision-making as a process.

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Supervisor: Jonathan Reams
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Norwegian University of Science and Technology
Faculty of Social and Educational Sciences
Department of Education and Lifelong Learning

Abstract

The purpose of this study has been to investigate the process of decision-making processes as this is a theme I as a future counselor will meet regularly as an issue from my clients and coachees.

Decision-making is a fundamental skill that people need to face in the challenges of both personally and professional life as we live in the times of rapid changes and having to handle constantly new and various information.

Coping with this is a skill that can be handled based on each individual starting point where each one uses different methods to find a solution to the challenge.

As people uses various degrees of intuition and rational thinking in this process these thoughts lead to the research question that was stated as the following:

"How is the process from gut feeling to rational thinking in decision making."

To answer the research question, I interviewed three executives from an international finance and business consulting service via Internet. Participants participated in the one-hour semi-structured interview with questions that addressed both the individual, relational and organizational levels.

The method was carried out by IPA-Interpretative Phenomenological Analysis, which allows a thorough review of each participant's data material.

The findings from the interview became evident in four themes, which were presented as three trends in relation to gut feeling, from gut feeling to rational thinking, trust and feelings and triggers in decision-making processes.

These themes indicate an overall finding that may seem to provide a conclusion that decision-making takes place in a range of emotions, different degrees of awareness, ability to use language to elucidate implicit and explicit knowledge and motivation seen in light of the term "feeling-tone" which here translates into personal psychological structure that affect the ability to learn in the situation and develop to a higher level of skill.

Sammendrag

Hensikten med denne studien har vært å undersøke temaet beslutningsprosesser, da dette er et tema jeg som fremtidig rådgiver vil møte regelmessig fra klienter og rådsøkere i arbeidet som rådgiver.

Beslutningstaking er en grunnleggende ferdighet som vi utøver både personlig og i det profesjonelle liv siden vi lever i en tid med stadig raske endringer og konstant flyt av informasjon.

Å håndtere dette er en ferdighet som håndteres ulikt basert på hver enkeltes utgangspunkt som påvirker hvilke metoder man bruker for å løse utfordringer man står ovenfor i beslutningstakingsprosesser. I tillegg bruker mennesker ulike grader av intuisjon og rasjonell tenkning i denne prosessen, dette førte til forskningsspørsmålet:

"Hvordan er prosessen fra magefølelse til rasjonell tenking i beslutningsprosesser."

For å svare på forskningsspørsmålet intervjuet jeg tre ledere fra en internasjonal økonomi- og bedriftskonsulenttjeneste via Internett. Deltakerne deltok i en times semi-strukturert intervju med spørsmål som tok for seg både det individuelle, relasjonelle og det organisasjonelle nivået.

Metoden utføres av IPA- Interpretative Phenomenological Analysis/tolkende fenomenologisk analyse, som gir rom for en grundig gjennomgang av hver deltakers datamateriale.

Funnene fra intervjuet ble delt i fire temaer, som ble presentert som tre tendenser i forhold til magefølelse, fra magefølelse til rasjonell tenking, tillit og følelser og triggere i beslutningsprosesser.

Disse temaene indikerer et overordnet tema som gjør det mulig å konkludere med at beslutningsprosesser foregår i en rekke av følelser, forskjellige grader av bevissthet, evne til å bruke språk for å belyse implisitt og eksplisitt kunnskap, motivasjon sett i lys av begrepet "følelser-tone" som her sees som en del av en personlig psykologisk struktur som påvirker evnen til å lære i øyeblikket og utvikle seg til et høyere ferdighetsnivå.

Preface

As I was looking for a subject to my master's thesis I knew I wanted to find a theme within different degrees of awareness and consciousness. As I started reading on the topic and my supervisor Jonathan Reams started leading the way into a direction of theories and reflections on biases and the construction on the rational mind as well as the intuitive mind, I got more and more excited. He introduced me to a direction and viewpoints of intuition that was new to me. I think this will be relevant to me as a counselor as I now have expanded my perspectives on how man thinks and some of the mechanisms behind their choices.

So, this is a big thanks to my supervisor for all the good conversations and reflections we had on skype during this particular time of coronavirus and home-quarantine life. It was helpful for my thesis and also my very limited social life these days.

I will remember the years from NTNU with great joy, as it has been subject to stimulating my curiosity on human consciousness and behavior, as well as having ability to connect to a learning environment that was curious about the same topics as me. It has been two years of challenge and fun.

I also would like to thank the participants of this research that took their time and gave me rich stories and descriptions of their experiences of the phenomena of gut feelings and awareness of the rational mind.

Finally, I could like to thank my family for patient support, as I have been quite occupied in the depths of human psychology and enlightening my family to the numerous examples of biases within system 1 and 2 by the dinner table for quite some time now.

Eva Gjevik Skjevdal

Trondheim, May 2020

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1 Introduction

1.1 Big Concepts

As I began planning my introduction to this thesis, I opened my newspaper this morning, and read the latest news on how the pandemic is spreading the Covid-19 virus. The article that found my interest was framed in the same perspective as I have written this study.

The journalist's opening claim is that: "it is not useful with all the knowledge of the world if you think wrong. The corona crisis provides many examples" (Vassnes, 2020).

He further describes how the best-read experts fall into cognitive pitfalls, as our experts tells us that the virus will not reach us, which the journalist calls the not here-bias, and it will disappear after Easter, which he claims is the optimistic bias.

For me this was a funny coincidence of framing, that spoke directly to me as he addressed many of Kahneman's perspectives from his book "Thinking, fast and slow" (2011) which is used widely through this thesis.

This show the relevance of Kahneman's theory to understand the flow of information, cognitive aids as language, logic and perspectives on reality to cope with the complexity and challenges we have to deal with in the modern world.

As a master student of a two-year counselling program at Norges teknisk-vitenskapelige universitet (NTNU), the program intends to educate students on growth and development in a holistic perspective at the individual, group, organizational and social levels. The context of this research is situated in work-life organization and looks into the ways leaders organize their perspectives on decision making as a process.

I decided on this topic because as a future counselor I will meet the individual-oriented perspective related to a social and system-oriented perspective with counseling directed to contexts as groups, teams, family and organizations.

The phenomenological world of the three participants in this research is seen in light of the external and social contexts discussed related to the terms implicit and explicit. The explicit can be defined through the controllable, intended, aware and cognitive resources. The implicit can be seen in light of less controllability, less intention and awareness of processing (Bargh, 1994 in Nosek, 2007) as well as automaticity (Kahneman,2011).

These where the starting points to look at how they process their perspectives on decision making. There will always be many layers of translating their information and relating it to degree of awareness on how it relates in them on a subjective level, or as a part of a system level as it is woven together and interrelated.

The subject of implicit and explicit can be hard to define as it is both a mental process and mental experience which are not the same thing. It is based on the operation of the mind, and the last one is subjective life that emerges for the individual. This shows a variability and distinction, the states are not the same, but how it differs is not clear

(Nosek, 2007), with this in mind I have studied their awareness and perspectives on the topics of gut feelings and the rational mind.

1.2 Some Concepts of Perspectives on Systems and Transferability of the Topics

The system-oriented perspectives in counselling make me relate the findings in this thesis and the theories used as representative and transferable to other levels of people, and in other counselling situations as the themes involved regarding decision making situations brings up similar topics to a various extend but with similarities in different systems.

This is based on seeing systems as open, with the individual being a part of several systems as individual and groups that interacts through relationships and social systems (Gjems, 1995).

It is worth mentioning that every system often consists of its own discourse: a discourse "serves as lenses that allow us to consider specific social practices such as problems, describe such problems in a particular way, and choose certain solutions over others" (Sultana, 2018, p. 39, my translation).

The participants framed their views on their thinking, feeling and meaning in a way that make me think it was close to a discourse which sees man as human capital in a socio-economically effective perspective, involving a humanistic developmental path with self-realization, self-understanding, development of abilities and aspirations as key words from psychology, and a social-constructionist discourse in which one is oriented towards society (Sultana, 2018).

I find this relevant background information as to show my own discourse as a researcher, to reveal the construct of how I look at the information at hand to build my interpretations upon, as discourses are based on people's perceptions of meaning as we make sense of our interactions in an intercorrelated relationship between phenomenology, external and social life (Chen, 2003).

1.3 My Personal Approach

My own interest in the research question is colored by my view on decision making from a lens as a previous pre-school teacher, that was trained in a cultural environment that highly appreciated the legacy of Jean Piaget and Erik Erikson's focus on development as stages. I also have a background in yoga-philosophy so decision making in context of higher perspectives, dualism, meaning making and resources of cognitive and intuitive matters has been topics of interest to me for a long time. I also found inspiration from a earlier master student on this subject from Solbjørg Skjelstads thesis *Mind you heart* to study decision making.

I have been intrigued by the question of the individual differences between people and discovering Kurt W. Fischer's (1943-2020) work called dynamic skill theory that explains both consistency and variability in developmental patterns felt almost like a relief and giving some missing pieces to the puzzle.

With Kahneman and Fischer I started reflecting about the connections between peoples' various degrees of understanding and relating to a rational or more intuitive perspective on the world both as polarities, but also what happens in all these moments in between, where we change our mind, reflect, reorganize and feel unsecure.

1.4 The Research Question

The main research question for this thesis project is as follows:

“What is the process of going from gut feelings to rational thinking in decision making situations.”

I have used the Nobel Prize winner Daniel Kahneman's theory (2011) that offers a behavioristic view on development and discussed in light of two systems of thinking as a theoretical framework of gut feelings and rational thinking. He sees gut feelings as based on heuristics, fast thinking and intuition known as system 1, while the slower more deliberate rational thinking, is system 2.

Decision-making processes I see in context of Gelatt's (1989) way of framing it as a “process of arranging and rearranging information into a choice or action” (p.253). This frames the starting point to look at how different types of thinking affect how one copes in decision making processes.

1.5 The Structure of the Thesis

In chapter 2 the concept of decision making is devoted to highlighting theories that explains some of the processes involved in complex situations and people's ability to cope within these circumstances.

In chapter 3 I describe methodological choices during this project, with specific descriptions of how it influenced the research, as well as attend to important aspects related to research quality and ethical considerations.

The analytical work is presented in chapter 4. Findings, containing extracts from the transcriptions of the interviews, which is the foundation for the themes identified and used for further discussions in connections with theory in chapter 5.

Finally, the discussion will be summarized in chapter 6, and a few implications for further research will be presented.

In appendixes additional extracts from the data is included.

2 Theory

2.1 Decision Making in a VUCA World

There has been a change in society during the last 20 years with a growing gap between complexity in workplace and the capabilities of leaders which over time can lead to a complex crisis where leaders can be forced to make decisions without adequate understanding of the situations (Kegan, 1994).

This gap might increase as leaders are repeatedly forced to deal with situations that are more complex than the ability of the leader.

This is today described as the VUCA tendency which can be related to the "need for developing better leadership capable of transforming volatility, uncertainty, complexity and ambiguity into vision, understanding, clarity and agility" (Reams, Fikse, & Ness, 2020, p. 37).

To complicate things, leadership learning can be seen as a cumulative and incremental, so efficiency is dependent on the already existing knowledge. Furthermore, organizational learning is dependent on how individuals share and communicate their knowledge and brings internal and external knowledge to the environments in an organization. This creates a challenge in the problem-solving situations in VUCA environments (Cousins, 2018).

Critics have addressed how the VUCA term has become a cute way of blaming on "unpredictable change", leaning back, instead of facing the challenge with proper adjustments, as VUCA is treated as synonyms and not the acronym it was meant to be (Bennett & Lemoine, 2014, p. 312).

The consequence of this is leaders who treat the VUCA world term as a solution to be innovative, creative and flexible and not spending enough time on planning strategies. Instead Bennett & Lemoine claim each VUCA terms need its appropriate responses instead of being treated generically and leaning to an understanding of a VUCA world as a useless place to understand and to plan responses in.

Another perspective related to the VUCA world is on how we should embrace "change and ambiguity, accept uncertainty and inconsistency, and utilize the nonrational and intuitive side of thinking and choosing" (Gelatt, 1989, p. 252) as a strategy to cope with positive uncertainty in decision making.

2.2 Coping with Positive Uncertainty

Coping with uncertainty is something that might bring up unpleasant connotations for most of us and it is a natural instinct to avoid the unpleasant. This leads us to stretch far to transform the unknown into the known and in that process, we end up with biases (Kahneman, 2011; McNamara, Fawcett, & Houston, 2013).

Gelatt (1989) further states how there is paradoxical need to be positive in face of uncertainty as a decision-making process usually contains a lot of uncertainty.

But this is what needs to be in place to be a successful decision maker, this is the essence of the “positive uncertainty” because there is no space to be able to describe or see all potential decision strategies considering how complex organizational and individual learning is in times of VUCA.

With positive uncertainty it is easier to reflect back and forth, with help from a coach one learns from their future and past, evoking flexibility as a two-way skill. Managing to respond to changes and old habits (Gelatt, 1989) which is a way to develop skills in decision making.

Krumboltz (2009) declares that being undecided should be reframed from something negative to being open-minded instead, to get the respect one deserves, which I see as another way to describe the need to learn new decision-making skills because the world has changed.

Also giving an interesting view on positive uncertainty is in research that concluded that a high environmental uncertainty correlated significantly and actually strengthened relationships between self-sacrificial leadership and followers (Zhou, Long, & Hao, 2016).

The hidden positive effect of uncertainty is also framed in association to that predictable events create less intense emotions than the unpredictable ones. This is a pleasure paradox, but still people tend to seek the certain even if positive mood lasts longer in uncertain conditions (Wilson, Centerbar, Kermer, & Gilbert, 2005).

This might indicate the need to develop some endurance with unpleasant feelings, the need to avoid it and develop knowledge of the hidden effects of uncertainty as it would increase the ability and endurance to cope in uncertain situations. Considering that today we have many psychological techniques and terms like for instance resilience and salutogenesis which highlight man’s inherent ability to adapt, to help people cope with uncertainty and unpredictability (Eide, Sævareid, Aasland, Grelland, & Kristiansen, 2008). One also might consider how the mind efficiently is occupied with normal processes as perception, attention, learning and judgment. The implicit influence of these processes makes us able to learn and cope even if we don’t access conscious awareness to the process. This can create a bias if there’s no awareness to it, as we learn and adapt to habits that don’t help us in the long run through the adaptive unconscious, while not accessing conscious awareness to the process of performing a somersault and leaving this to the unconscious is acceptable (Wilson & Dunn, 2004). It is also necessary to keep in mind that to reduce for instance anxiety is helpful and sometimes necessary, but the pleasure paradox (Wilson et al., 2005) is showing that excessive fear of unpredictability creates less possibility to the hidden effects of uncertainty.

2.3 Framing our Perceptions

“A problem well stated is a problem half solved”
John Dewey, (Russo & Schoemaker, 2001, p. 9)

This citation shows the significance of frames which is a very important skill in decision making. “The perspectives through which we view the world limit the decision-making options we can see and influence how effectively we can communicate and ‘sell’ those options to others” (Russo & Schoemaker, 2001, p. 21).

But what many of us have problems with is to actually effectively frame and communicate. Defining the problem is what we need to address first, instead of jumping over this part and start doing the solution finding instead.

This demands some skills and ability to see our own perspectives which depends on our consciousness skill, which is the capacity of cognitively understanding complex systems and self-awareness giving us the opportunity to be present in our own process (Volckmann & Jordan, 2005).

Meta-awareness is needed to be able to observe the awareness, to give it an object status, (Jordan, 2002) which will help us reflect and understand why we decide what we decide and the perspectives we have based this upon.

To be able to frame our problems well as Dewey states, we need to develop to a higher level of complex systems which is known as the described "subject-object relationship". Then we are able to look at an object and know what subjective lens we are looking through. This is a complex system that lets us "incorporate and expand on our previous system" (Kegan & Lahey, 2009, p. 51). This also has consequences to the process of making the implicit explicit which I will return to later.

Frames are the "mental structures that simplify and guide our understanding of a complex reality-force us to view the world from a particular, and limited perspective" (Russo & Schoemaker, 2001, p. 22). They are the core of our mental capacity, which have been developed by education and life experience.

To see our own frames "the subject-object relationships" help us reflect and learn about ourselves. Frames helps us make useful connections but can also limit our thinking and appear like a lens we see the world through. Our lenses can be tricky to see for ourselves and can be a source for biases and blind spots (Zinker, 1978). We might not want to accept, or see those, and therefore they keep affecting us and create a conflicted state that distracts us more when we try to frame our lives.

The subject-object development can give insights that expands and corrects the frames and expanding the leader's ways of coping with challenges as a skill.

2.4 Decisions and Judgments vs. Two Ways of Thinking

The topic of the probability of uncertain events and the value of uncertain quantity show that people tend to rely on very limited numbers of heuristic principles and are subject to biases as tending to be transferring to simpler judgmental operations. Sometimes this could be useful, but it could also lead to systematic errors, described as biases. Heuristics is hereby explained as the process used to find answers to difficult questions, leading to adequate but imperfect answers (Kahneman, 2011, p. 98).

As discussed earlier, this is what happens when we are getting biased when we are working on framing early in a decision process. Instead of working with defining the problem we jump to working with the solution instead. This is based on a cognitive and behavioristic approach to intuition and rational thinking, as Kahneman describes two ways of thinking that affects the ability of decision making.

Through research on judgment heuristics, Kahneman defined intuition as a system 1; "a effect of prolonged practice," and "skill and heuristics are alternative sources of intuitive judgments and choices" (p.11) referring to seeing intuition as being based on experience and recognition. This happens as an unconscious process, when in search for an answer to a difficult question, we tend to rewrite the difficult questions by answering an easier one. System 1 is the resource when in need of quick solutions and fast thinking, as it is the heuristic and automatic mental capacity with perception and memory.

The other way of thinking is the slower system 2 that are activated when we attend to a situation where a solution fails and we are forced to think deliberate and in a more effortful way. It is a more deliberate and more logical way of thinking that is required in most economic models and corporate strategies, but Kahneman claims people regularly make systematic errors and need to be aware of the biases, as he demonstrates how system 1 is the more prevalent mode of professional decision making.

This implies that in complex situations we need to rewrite our focus and understanding and go more systematically into decision making frame, gather intelligence and facts, coming to conclusion through systematic approach, and learn from experience to improve the skill. The challenge is to control and sometimes override our instinct and automatic pattern as mentioned as systematic errors and get biased as we lose the ability to keep track and see the different perspectives, and so makes decisions at a lower level than we are actually capable of when we are under stress in a VUCA world. This connects to Dijksterhuis & Norgren 's (2006) way of explaining waiting for an intuitively feel for the best option, and a lazy system 2 that withdraws, or are occupied with other processes.

System 1 and system 2 functions more or less conscious or unconscious.

As decision-making is the process of arranging and rearranging information into a choice or action (Gelatt, 1989, p. 253) it needs some awareness of framing. Torbert (2004) argues that framing is a matter of making the implicit explicit.

What we observe depends on what one chooses to observe or is hooked into observing by emotions and affective trigger making, not the universe as the center but the mind as the center for decision making (Gelatt, 1989). This means there is a need to develop awareness to the relationship between the implicit and explicit and the relationship to system 1 and 2 to be able to conduct a balanced and nuanced choice of decision-making processes.

The effortful thinking of system 2 requires self-control so cognitive effort can get biased in challenging situations and trick us to unconsciously choose system 1 as system 2 is known for being lazy, and system 1 has more influence on behavior than system 2 (Kahneman, 2011).

In decision-making processes this means we need to develop the capacity for endurance, otherwise we would be subject to random procedures between system 1 and 2 as 90% of self-regulation in everyday life consists of stopping a response (Baumeister, 2014). There seem to be a connection between the level of glucose and our ability to self-regulate, ego-depletion and inhibition. Baumeister refers to several studies that say something about how glucose is used up during the exercise of a will that is self-

regulation and how we get tired, for example when we aim to save money. Before the will-exercise is done, the glucose level is higher and after the exercise it is lower. When we operate at a system 2 level, we are in a mode of selective attention which also uses force to be able to self-regulate and to some degree avoid for instance attention bias and so cause mood congruence and motivation congruence (Raila, Scholl, & Gruber, 2015, p. 259).

Another aspect that might influence whether we operate in system 1 or 2 is the capacity principle. The conscious processing capacity can be very low and shows how conscious thought (system 2) can be maladaptive. Conscious thought might "lead people to focus on limited number of attributes at the expense of taking into account other relevant attributes" (Dijksterhuis & Nordgren, 2006, p. 97) I also see this as an explanation to how we unconsciously change back to system 1 thinking and randomly processing in decision making processes when we for some reason give up or simply change strategy.

Kahneman (2011) further recommends using system 1 in certain situations, for instance when fast decisions are needed. But he still warns against trusting intuitions too much, because system 1 is biased to beliefs and confirms existing heuristics, which are the rules and procedures we believe in. It is also a coherence-seeking, making people to trust limited quality and quantity information, also explained with the term WYSATI; what you see is all there is. The role of system 2 is to be critical and doubting, but is often busy or lazy (for instance when the person is tired, the skill to use system 2 diminishes and lets itself be influenced by system 1) even if it is able to do more systematic and truthful investigations of facts and procedures.

2.5 Some Critical Thinking of Kahneman's Theories

Regarding this I want to bring up how many scientists have tried to develop many explanations on thought and belief systems, Gelatt (1989) claims that Kahneman's way of studying the human dealing with uncertainty was to help people to become more rational, so Gelatt is asking for a way that is more creative and intuitive.

There has also been raised certain discussions about Kahneman producing a dichotomy between two modes of thought, when introducing system 1 and 2. Arguments have been raised that both systems 1 and 2 are needed to for instance properly react to risk, and that the weakness of Kahneman's view is the focus on uncertainties instead of probabilities. Agreeing to the pitfalls with system 1 thinking and subjectivity but warns that so is system 2 since it is dependent on the judgements of analysts and experts, and so is a subject to biases just as much as system 1 (Aven, 2018).

Also contributing with an interesting perspective is Baumeister (2014) when claiming that the research on automaticity has been extensive, but most work has focused on unconflicted automatic impulses. It seems like these situations do not require energy, while overriding responses does use energy.

I would say this gives perspectives that need to be further investigated when considering system 1 or 2 in terms of best functional states. This perspective also connects to the claim that how we gather information and process it, is of bigger importance than what happens next. Decisions made from incomplete information or sloppily acquired information will not be as good. So a best of both worlds hypotheses would be the best,

because the limits of thinking consciously is biased because we feel we process information with the best skill, while that one unknowingly is doing, is processing information and "confirming an expectancy" (Dijksterhuis & Nordgren, 2006, p. 98).

The happenstance learning theory explains a theory of happenstance that creates a world that is seen as "every situation can be seen as presenting potential opportunities if individuals can recognize them and then take action to capitalize on them" (Krumboltz, 2009, p. 136). The complexity of the world is so unpredictable that it can at the best be labeled as happenstance. But seeing the world as an opportunity definitely gives reverberation with the earlier mentioned theories on subjective lenses and ways of framing what we experience. Krumboltz also emphasizes why people behave the way they do according to environments impact. To frame the complexity of how environment affects the individual more in detail I will present the dynamic skill theory.

2.6 Dynamic Skill Theory

In dynamic skill theory we find a view on development that shares perspectives with several developmental theories as by Baldwin, Dewey, Piaget and Vygotsky. Kurt Fischer began with an interest to Piaget's research and theories of behaviors in children into further developing his view on learning and development as a ladder in age-related terms, but adding variability and individual differences, using the term levels and tiers instead of Piaget's use of states.

Psychological transformation in dynamic skill theory is described through focusing on cognition and intelligence through aspects of learning and problem solving according to predicted major shifts in cognitive development, again leading to change of skills as a person develops (Fischer, 1980). Also including an understanding that humans shift back and forth between skills for doing a task and in this way learning to integrate from simpler forms to "more complex and sophisticated skills" (Fischer & Yan, 2002, p. 288).

The ability to jump back and forth between skills is related to other theories about motivation and learning in a supportive environment and how competence varies from moment to moment and is affected by contextual support, or the lack of it. This I see in connection to a heritage from Vygotsky. "Human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them" (Vygotsky, 1978, p. 88).

The term for this is micro development (Fischer & Yan, 2002), it shows the process of change as a nonlinear process. An example of this is how kids lower their activities down a level and rebuild the skill to solve the new task. This is the natural way of learning and a "backward transition to build and rebuild a new skill" (Fischer & Yan, 2002, p. 300).

An important part of these development theories is also Vygotsky's (1978) influence with the term "zone of proximal development" (p. 87), or "Goldilocks zone" (lecticalive.org), which defines functions that are maturing, and gives educators "a tool through which the internal course of development can be understood" (Vygotsky, 1978, p. 87).

Dynamic skill theory includes how dopamine stimulates incentive salience and is therefore closely linked to motivation. The role of dopamine levels has been debated, with distinctions made between "liking" as in hedonic reward, "learning" as in learned predictions of future reward (e.g. Pavlovian conditioning), and "wanting", as in relation to

the ability to pursue and work explicitly towards a goal (Berridge, 2007; Berridge & Robinson, 1998; McClure, Daw, & Montague, 2003).

I see this related to how relevant learning goals can produce motivation for the curious testing through experimentation of new skills.

How we develop through lifetime is a dynamic construction of psychological structures. This means we change according to environment and an individual can be excellent in one skill, while functioning at another level in another context as it is seen as an emergent web of development where skills function at "range of levels depending on context, domain, time of day, emotional state and other variables" (Mascolo & Fischer, 2010, p. 164).

During stress-full experiences we might only function on an automatic level, while under more normal situations we might find ourselves coping at more functional levels (Reams et al., 2020). This might lead to the need of scaffolding which one for instance might get access to through a coach and thereby coping at more optimal levels of performance (Mascolo & Fischer, 2010). This affects how we can look at self-management and leadership-skills and we might use the principle of subject-object theory (Kegan & Lahey, 2009) for any development to happen, as knowledge and experience needs to become internalized, as well as develop from implicit to explicit.

As the discussion on development has been approached and characterized by dichotomy discussions, Fisher and Silvern (1985) contributed by including plasticity of development as a part as a result of multi-influenced factors as "genetics, neuroanatomy, physiology, behavior, environmental context, social group organization and for people, cultural organizations" (p.616).

This softens the controversy around the concept of maturation by bringing together the concept of stages and individual differences with presenting an organismic-structural approach as an oak tree, where the end points are defined broadly. The other approached is described as a mechanistic-functional approach, which is more concerned with learning and problem solving. The organismic-structural approach is more concerned with development issues and has no structural endpoint concluding that both stages and individual differences exists, but not detached from environmental and organismic factors. (Fischer & Silvern, 1985).

2.6.1 Thinking, Feeling and Acting, Integrative Psychological Structure

As dynamic skill theory puts focus on context and human activity in close relation to each other, so is the area of thinking, feeling and acting as it is an important part of a dynamic integrated relationship over a life span.

The phenomena of experiencing an emotional state is referred to as a feeling-tone. Emotions have a central role in organizing meaning, one can say "emotion is not only necessary for the formation of novel psychological structures in development: emotion is part of the process that defines a dynamic psychological structure" (Mascolo & Fischer, 2010, p. 186).

As it is often difficult for people to describe their felt states, it is often told by stories about circumstances where those feelings arose (Sarbin, 1989 in Mascolo & Fischer, 2010 p. 153).

Emotional experience reflects what a person wants to do and what a person might have a tendency to do. Our perceptions on an object can change actions, as well as it can happen the other way around. Our acts are "mediated by meaning" (p. 151).

Further action is seen as a behavior or movement that transcends inner experience and outer movement that implies some control of action (Mascolo & Fischer, 2010). This is a part of a self-control and cognitive effort which is a part of an action as our representational skills that are composed of sensory motor skills. Abstract skills are also composed of representational skills and sensory-motor skills. This indicates there is no separation between thought and action, since thought reflects sensory-motor impulses and skills. On a higher level representational and abstract skills is a product of sensory motor-action and development (Fischer, 1980).

There are many layers and degrees of how we use this skill, for instance the fear of seeing a child in the road when driving a car, make us react instantly and remove the danger. This example can be seen as a regulation from the unconscious, while the ability to regulate "affective complexity consists of the capacity to differentiate, experience and coordinate multiple emotions at the same time" (Mascolo & Fischer, 2010, p. 174). This says something about how we manage to regulate through life's stressful events, with better control and understanding as it shows how psychological structures is not just a cognitive side, but "also organized in terms of significant emotional content" (p.175).

2.6.2 Building Understanding and Perspectives Through Systems

Development can be seen and explained through building systems according to Mascolo & Fischer. Systems develop when coordinating several single sets, which is known as the term mapping. A system of systems is a result of two systems mapped into each other. To be able to conduct this, one needs to both be able to generalize concepts as well as abstracting into conservation to see that knowledge or skills can be transferred to a similar situation or operation of a psychological structure that is demanded in the situation which is at a high-level functioning.

Life goals has its role in this. There is no common trajectory in this, but they move in the direction of increased differentiation and hierarchical integration. Skills go from context based in micro developmental structures as moment to moment experiences and interactions to more macro level oriented and intercoordinates from generalized and encompassing higher order structure that is based from the self-defined meaning that individuals use to regulate themselves (Mascolo & Fischer, 2010). This is when abstract principles give meaning to a person and makes him act in accordance to his higher values and priorities because it gives meaning to him.

When there is coherence between the capacity to behave according to abstract ideas one shows the ability to regulate and control one's actions. This is also supported of principles from Banduras studies on human agency and self-efficacy, which is important strengths as self-regulating skills, self-reflectiveness and ability to cope with environmental influences (Bandura, 1997).

Language is an important part of higher order social interaction, semiotic functions "refer broadly to any form of representation, where representation refers to the capacity to make one thing stand for or refer to something else" (Mascolo & Fischer, 2010, p. 179).

We are able to construct meanings that mediates thinking, feeling and action, this way language is the bridge between the multiple levels of communication, co-construction and exchange between people as it can be shared in a linguistic community.

Language has different levels of action. On an individual level it internalizes, makes information appropriate and is the vehicle to think with as well as make us able to participate in sociocultural activities. Language also serves as a part of how we see ourselves, which also is a part of how we regulate our action. When we are "lost in the experience" (Csikszentmihalyi 1991, in Mascolo & Fischer, 2010, p. 180), the experience takes so much of our resources that we only partly are conscious of what is going on as we focus on an external object. When we are able to take oneself as focus of awareness there is a transformation of individuals and groups as we are looped back and able to see oneself as focus of awareness. What then might happen is that we are able to coordinate "previously unrelated meanings or actions" (p. 184). This leads to movement in a developmental level of skill.

To adapt to this world, and the different perspectives in decision making action inquiry might give some interesting perspectives.

2.7 Action Inquiry

Action inquiry is the heart of productive and self-assessing behavior. It is the combination of behavior or actions, with an ongoing reflective inquiry aimed at helping us deciding "what action is timely" (Torbert, 2004, p. 13).

The problem is our own level of awareness in the situation and what lens we are seeing the world through.

In decision making situation there is a need for perspectives and perspective balancing. Trying to meet the standards of many different and often complicated factors, where we find it difficult to make ourselves vulnerable to change and also meet the expectation of getting things done, in time.

Torbert talks about awakening awareness in stressful and difficult situations is needed. A shift in awareness associated with action inquiry that "transcends all our implicit self-images that cramp awareness and prevent us from acting with integrity, mutuality, justice and inquiry's" (p. 16).

Framing this as different levels of awareness, the term "loop-feedback" gives clarity to which level of awareness we are capable to relate to. When we are able to adjust to the different changing conditions as for instance being in a decision-making process, taking in new information and adjusting to changing conditions, we have a high degree of awareness that is the first level of "single-loop feedback."

The motivation for awareness is prior on whether or not I am advancing toward my goal. On a second quality level of awareness we might be able to transcend our own self-

image and re-create a new one. This is the "double-loop feedback" where we transform our behavior and strategy, and what motivates this is on a level where we want to take care of legitimacy, effectiveness and efficiency. To develop further and be able to make a decision with higher awareness we need to transform power that enhances mutuality, as for instance a channel for two-way communication line with our surroundings.

Our strategies and action-logics are hard learnt, and it can be hard to let go and seek new insights. It is a process that can be compared to losing one's identity, because we reframe all our knowledge and inner systems while developing.

With an even higher degree of awareness we might enter the realm of "triple-loop feedback." Here we find ourselves in a situation that motivates us to commit to a supervision and be able to see what is going on in several levels.

We are capable to reflect and act upon the complexity of outside events, our own sense of performance, our action logics and our intentional attention that combines seeing and understanding the effects from the outside world with the effects of our inside. Action logic explains how leaders interpret their environment and decides how they react to change or challenge. The pattern behind is the "logic" and the pattern has been created from the interaction with the world (Rooke & Torbert, 2005). This means we get access to our inside and outside, implicit and explicit.

3 Methodology

In this chapter I will describe my research strategy and methodological choices, to create transparency about the process and my reflections about it.

This master's thesis is written as an explorative research (Thagaard, 2018, p. 184) and a qualitative research method with a phenomenological approach to be able to go deep into each informants' experiences. I specifically use the *Interpretative Phenomenological Analyses/ IPA* (Smith, Flowers, & Larkin, 2009) to frame and structure the phenomenological investigation of the relationship between decision-making processes and different degrees of awareness from three participants.

The interviews are conducted on skype, with semi-structured in-depth interviews to see how the participant relate their implicit and explicit awareness to decision making.

3.1 Choice of Qualitative Method and IPA.

I chose IPA because it is concerned with exploring peoples experience on its own terms and I wanted to learn more about a phenomenological method. It also recommends studies with a small number of informants (Smith et al., 2009), and gives possibility to go in detail to the similarities and differences between each participant, which seem to suit me as a new beginner in research and an interest in doing in-dept information of data (Thagaard, 2018).

Qualitative research focuses on how people make sense of what happens and puts light on meaning, sense-making and communicative action (Smith et al., 2009).

Several researchers point to the main strength of qualitative research as the ability to study complex phenomena and use questions to see how phenomena appear as the data is obtained through pictures, words and meaning (Mørch, 1989; Ryen, 2002; Silverman, 2014).

Qualitative data is also claimed to be "well-grounded, rich descriptions" and it explains processes in local contexts (Miles & Huberman, 1984, p. 22) this also connects to the statement of research wanting to describe a social world, "that in some controllable way correspond to the social world that is being described" (Perakyla, 1997, p. 2001).

With this in mind I see the phenomenological approach to qualitative research as an extension of how one's subjectively sees the reality of an experience.

IPA is based on three areas of philosophy: phenomenology, hermeneutics and ideography. In this section I will give an introduction to them in context of the IPA.

3.2 Phenomenology

Phenomenology is the study of experience and aims to analyse and interpret the data to find some common denominator from a phenomenon (Postholm, 2010).

Husserl's interest in the subjective meaning for each individual was the foundation of phenomenology. The focus lies within what is experienced in each individual's consciousness. His use of the term intentionality is being used to describe the relationship between consciousness and the object of attention (Smith et al., 2009).

This is a view on humans as purposeful and intentional, that construct perceptions through a diversity of "phenomenological world and external and social contexts" (Chen, 2001, p. 317).

Bracketing (Smith et al., 2009), is also used to explain conscious intensions. We need to concentrate our focus toward something, as we sometimes need to bracket other things away. This "something" is at the center of interest for me as a phenomenological researcher. As phenomenology searches for the subjective experience, even "the researchers experience of own reflections can create the base for the research" (Thagaard, 2018, p. 36, my translation).

If I am able to get access to the subjective experience as it is and see if it's relevant for several of the participants, I get to the "eidetic reduction" and get to the idea of if it tells something about a common phenomenon, and also transcends the individual, which in Husserl's vision says something about looking at the "nature of consciousness" (Smith et al., 2009, p.14).

Heidegger also brings in an interesting perspective with focusing on intersubjectivity, which relates to a understanding of the human in relation to something, meaning that people try to interpret and make meaning out of regarding what happens to us (Smith et al., 2009).

Because of this I have framed the questions so I can see how the participants see their process in a context of personal (for instance how it makes them feel), relational and at system level to see it in a bigger context.

3.3 Hermeneutics

Hermeneutics can be described as the theory of interpretation (Smiths et al., 2009). The interpretation is found through finding the deeper meaning behind what first meets the eye. It is based upon a belief-system where one denies there being just one truth. But many that can be interpreted on many levels (Thagaard, 2018). It also includes interpretation of what can be understood as "text" (Smith et al., 2009) and according to Thagaard (2018, p.37) hermeneutics seen in a social science context is to "read culture as text."

Giving thick descriptions is an example of hermeneutics, because a thick description includes statement about persons behaviors, opinions, their view on the subject as well as the researchers view on it (Geertz, 1973).

So is the concept of interpretation of first, second and third degree (Fangen, 2010), which describes how hermeneutics creates possibility to interpretations on several levels, where the researchers interpretation is based on the communication with participants which has been observed, while the second degree shows the symbolic meaning of action

and the third, consists of researcher's interpretation of action and theories that reveal something of the hidden meaning.

Even creating room for having in mind the hermeneutics of suspicion is important in hermeneutics because it allows critical interpretations and claiming meaning as something else than stated. As with other research methods, which might demand strict objectivity, hermeneutical opens up for many truths and meanings when interpreting. (Kvale & Brinkmann, 2009). This is something I felt was very meaningful, as I kept discovering new ideas and new ways of analysing and interpret the statements every time I worked on the transcripts.

3.4 The Hermeneutic Circle

The hermeneutic circle is described as interdynamic relationship between parts and the whole. When trying to understand something, you look at both- parts and whole (Smith et al., 2009). The statements and answers of my participants is treated both to find their subjective meanings, but in IPA there is a point to also reflect the researchers meaning of the participants statements. This is a intertwined concept of reality and life, and hermeneutic circle that gives the possibility to go back and forth, working nonlinear with the data, and also seeing how all levels relate to one another, and give different perspectives if we see it as part-whole coherence (Smith et al.,2009).

I found the hermeneutic circle helpful during the process of writing the thesis. In a project of this size I had to work with details and the whole several times. Each time it made an impact on the bigger meaning, as I for instance discovered new possible ways to analyse each participants statements each time I worked on the transcripts or chapter 4, the findings, which again impacted how I could use it in matters of "eidetic reduction" (Smith et al., 2009, p.14) and discuss it further as a phenomenon in the discussions chapter. The hermeneutic circle gave possibility to also be aware of my own assumptions, likes and dislikes, as I also wrote comments on my own critical voice to have a record of my interference when analysing.

3.5 Idiography

Idiography is concerned with the particular and committed to the details, being systematic and through. This possibility comes with using small numbers of interview participants and a possibility to go deep into details. The other aspect is that it is concerned of understanding how the perspective of the individuals is seen as a result or part of a context. Ideography can therefor open up for the possibility to generalize, and not be so concerned with being nomothetic and not making claims at the behalf of a group (Smith et al., 2009).

I sometimes experienced using small parts of the samples a bit hard. It seemed more natural for me to bring in bigger pieces of the transcripts, because I found it meaningful and giving useful information, so this was a skill to be developed and practiced.

It felt like the ideographic thought of concentrating on the parts was taking away some of the whole. But I soon learned that the carefully situated samples was a way of searching with a more critical eye to the data. I also learned how the pieces got their context back in the whole again as I sometimes saw how different participants described

a spectrum of understandings and a range that was sometimes quite different. So, making a claim to a group would sometimes feel difficult and wrong, but with a smaller number of participants I was able to go deeper when describing how come these differences between the participants had manifested as a part of context.

I also experienced the part of connecting findings to psychological literature very exciting. The difficulty was when to know this is enough as the sources to literature is infinite. According to Smith et al., the IPA writer brings the particular and details in connection to the whole parts, as the reader himself also connects brings his own perspective and knowledge into the whole. My choice of literature therefore reflects my interests in the whole.

3.6 Data Collection: Qualitative Semi-Structured Interview

Semi-structured interviews are the most used form of conducting interviews in qualitative research (Thagaard, 2009). According to Kvale and Brinkmann (2009) the goal with semi-structured interview is to obtain description of the lifeworld from the interviewees and pay attention to interpretations of the meaning from the described phenomenon.

The process of creating the interview guide was a journey of feedback and theoretical input from my supervisor and re-creating the questions along this. The hardest part was managing to creatively make open questions. I also had experience with how difficult it is to bracket oneself as a researcher and stay open-minded (Smiths et al., 2009) I found it difficult having my own assumptions and ideas of the claims that would enter the interviews, and also balancing the need for some idea of what is going to happen (to be able to create a reasonable application for ethical approval with the NSD (Norwegian center for research data) but without presuming anything.

The interview guide was built up trying to be open, not closed, exploratory, not explanatory, reflect process, rather than outcome as it is explained as criteria's for a good interview guide (Smiths et al., 2009). I initiated the interviews by framing the topic of decision making-skills, holding in mind that the information should not influence the participants, but more make them able to reflect on the topic that was within my research-field.

For instance, I chose to leave out the term 'intuition' from the questions and framed it as quick and automatic-directed instead as it was important not to prime my informants. I also avoided using primed formulations until question three, where I include the term 'gut feeling' which I see as more leading towards a more specific context.

The introduction part one, consists of open question of 'typical decision-making challenges' they find themselves in.

Part two contains phenomenologically experienced based questions, that encourage reflections on decision making in a spectrum from simple to more complex matters.

The closing part of the interview gave possibility for reflecting on how they experience using meta-cognition and so giving them the opportunity to co-research with me, when asking if they became aware of something, and if there is something they like to add. (A full version of the interview guide is in appendix D).

3.7 My Role as a Researcher

IPA is considered an interpretative method based on hermeneutics, because the researcher is making sense of what the informant is making sense of. The statements from the participants will reflect their attempts to make sense of an experience. In this context the researcher is seen as handling double hermeneutics, and a dual role. First the researcher has its own mental and personal skills and capacities, as do the informant, as a researcher I will try to interpret informants information given to me, but as Smiths et al. (2009) put it; my sense-making is second-order because I get to be more self-conscious and systematic in the process since I have access to the informants experience through his subjective descriptions of it. The term bracketing also comes handy here, because as a researcher I need to be aware of my interpretation which is linked to my own experience and knowledge. This might be seen as arguments that makes my research less phenomenological study, because it is described through my conscious lens (Smith et al., 2009), but with transparency and working through a first-person angle, there is a third hermeneutic level, letting the reader get an more honest look at how my subjectivity is affecting the whole process from gathering literature, to handling the analysis, and also having in mind that "the reader is trying to make sense of the researcher making sense of the participant making sense of X" (Smith et al., 2009, p. 41).

A qualitative research interview is often described as a conversation with a purpose. As Smiths et al. state, the conversation is a bit artificial because I have my own aim and my purpose is to facilitate for an interaction so my informant can tell their story, in their own words. So, for the most, the participant talks, and I listen.

This was a base for some worry for me as a researcher. During the semi-structured interview, I had the ability to for instance ask the participant to elaborate on something. I found myself wanting to ask several questions during the interview but restrained myself wondering if it could influence the participants answer.

To facilitate the interview and preparing for getting to know the context of the participants world and find a common tool or knowledge of their work situation I participated in a program that had the same decision-making assessment which they had participated in. (A problem-based discussion in writing, analysis and report, and feedback from a coach). This gave me the tool of using a language and framing that was familiar for them, the benefit of this was that it became easier for us to connect and get interested in participating.

In the interview I tried to be a good listener. Smith et al. claims this is a way to park or bracket my pre-existing concerns and haunches. Attentive listening is not only something that creates trust for the informant, but also makes sure my focus is on the informant and try to establish a good report with them.

I tested the questions in a pilot interview, and this guided me to frame better questions. I also noticed how I felt more confident for each interview I did. This was an important experience that show how I might influence the informants' questions, with my skill as an interviewer. For instance, I noticed how I could use paraphrasing to help the informant stay on track, if they for instance forgot my question, or seemed to lose interest in the topic for some reason.

During the analyses of the transcript I also recorded my own assumptions and feelings to be able to bracket my own perceptions of it as it is one of the levels of the hermeneutic circle (example in appendix F).

The attentive listening also is the starting point for thick descriptions (Geertz, 1973, in Thagaard, 2018). This indicates paying attention to both observing and interpreting the social meaning in regard to the contextual detail.

To do this my experience and knowledge from my counselling education is helpful, where we have learned the skill of good responses.

3.8 Selection of Research Participants

To explore how decision-making processes are reflected upon, I found it interesting to interview people who are part of stressful and complex situations in the VUCA world. This was my strategic selection (Thagaard, 2018, p. 58) via referral of my counsellor. Through him I got access to some participants of a leadership-development program.

The information letter and consent form (appendix A and B) gave the participants information about confidentiality and approval from NSD (appendix C).

I got three responses that were chosen for being available for the interview during early March and scheduled a 60 minutes internet meeting through their secretaries. The participants were partners in a global financial and business consulting services. Being a small research as this, I would like to add that the conclusions I reach should be seen as a representation of a perspective, rather than a population, since they all came from the same company.

3.9 Interview on Skype

The benefit of interviewing via the internet are many. I got access of informants that was not limited geographically. The time aspect and flexibility to schedule a meeting might even help when they signed up to agree to the interview.

Trust is essential in an interview situation and may be affected by the interview taking place over the internet. Whether it strengthens or weakens a relationship depends on the starting point and the relationship. For some, it is an advantage with physical distance, it can make talking about difficult topics easier, for others it can lead to too much distance for trust to be established. As a researcher, I might miss important information through body language.

Several claims it is easier to read and evaluate the credibility of interview data when it is face to face in the real world (Silverman 2014, Thagaard 2018).

Still I think using responsive interviewing is achievable (Rubin & Rubin, 2012). This leads to developing a trusting relationship with the interviewee.

These factors gave me some concerns in advance, because of the lack of real-life face to face interaction, the fact that I had to do the interview with a language barrier between us, and the technological issues that could appear. If it's a bad contact with the interview

person and I as a researcher instead gets occupied with the themes we are talking about or any language problem, or technical problems I might find myself so involved with the this that everything else gets in the background. Then the contact between the involved in the interview might create a base for further analysis of the themes in the interview (Fog, 2004; Thagaard, 2018).

3.10 Transcription

In my transcriptions I took aim to transfer the experience of the participants from audio to written document. I noted pauses, laughter, sounds to fill the *in-betweens* like *ehm*, and sighing. I also wrote all repeated words, and all unsuccessful attempts (that ended in a new attempt) at describing what sometimes happened as Silverman (2014) points to how the reliability of the interpretation of transcripts easily can be weakened by failure and ignoring things that might seem unimportant, but actually turns out to be significant. In the process, I also felt the wondering about what is good enough, but found comfort and trust in Silverman's words of perfection is "illusory" and his suggestion to agree on a transcript that is adequate for the task at hand (p. 89).

3.11 Process of Data Analysis, and the Hermeneutic Circle

The data analysis began when creating transcript and listening to audio recordings. I first initiated a free textual analysis as I read and commented and noted on the data to engage with the transcript. Those initial notes became helpful to me to remind me of the several possible layers of possible analysis of the data as it developed through the process of analyses.

The next step I created a template based on Smith et al., (2009) recommendations with three categories.

The first category was 'descriptive comments' concerning a phenomenological focus, where I stayed close to the participants descriptions without interpreting. This category helped me stay closer to the lived experience of the informant as I wrote keywords on the topics that were mentioned.

The second category was on 'linguistic comments', during this process I noted on specific ways of framing their language as word, phrases or sentences using for instance pauses, stuttering, degree of fluency, metaphors and laughter.

The third category was 'conceptual comments', where I engaged more on interrogative and conceptual level where I allowed myself to go deep into reflections and look how I could transfer data and see how parts and the whole influenced the understanding of matters that was discussed. This meant moving away from each informants' statement and search for overarching themes instead and also allowing myself to bring in my own references as a base for trying to understand their descriptions (appendix G, example of analyse work with three categories).

This way of working with the transcripts transforming them into analysis was demanding in perspectives of knowing when it was good enough, in the work of the hermeneutic circle. According to Thagaard (2018) this is an ethical discussion. The consequence of making theme-based analyses is that we do take it out of context, and by this the

informants understanding of the situation gets less of a place. The need to handle the data's context dependency is also highlighted by Fangen (2010) who argues that without emphasizing meaning and context, one will lose validity. This made me try to balance the dynamic and creative part of analysing the transcripts in the third category, by also documenting my own thoughts and perspectives during the process to keep track on how I come to my conclusions this way creating a balance between working creatively and free, but still with an opportunity to get back to the origin if I felt worried I got carried away and more occupied with my own process. As the analyse main concern is about the participants and not me as a researcher (Smith et al., 2009).

3.12 Research Quality

The definition of quality in qualitative research can be difficult to grasp because it is constantly in change and it is differently assessed depending on which glasses you wear. «Values for quality, like all social knowledge, are ever changing and situated within local contexts and current conversations” (Tracy, 2010, p. 837).

This frames how I reflect upon how I can use the terms reliability and validity as a criterion for knowing if its good or bad.

Also, my understanding of rigour affects what I define as good enough (Madill, Jordan, & Shirley, 2000). It affects how much the researcher sticks to a method, and IPA is for me a method with plenty of room for creativity and adjusting to the situation through the hermeneutic circle.

According to Smith et al., (2009) the criteria for validity and reliability should be “evaluated in relation to criteria recognized as appropriate to it” (p.179). This stands out for me as the red tread to IPA's relationship to a balance between rigour and freedom. As Smiths et al explains, IPA is a creative process, it's not about following a rule book as validity must be applied with flexibility.

Validity is articulated as truth value, credibility, authenticity (Lincoln & Guba, 1985), ability to stay critical to own research, and maintain integrity, as well as “explicitness, vividness, creativity, thoroughness, congruence and sensitivity” (Whittemore, Chase, & Mandle, 2001, p. 529). Validity is thereby shown through the degree of importance and usefulness of the research, enriching understanding and showing socio-cultural practical meaning, which is related to the ideographic and particular in for instance gathering the lived experience (Smith et al., 2009).

Reliability is described as degree of credibility and is a criteria to if the research is conducted in a trustworthy manners (Thagaard, 2018). This can be dealt with through using transparency descriptions of research strategy and analysis methods and theoretical transparency by making explicit the theoretical base (Silverman, 2014, Yardley, 2000 in Smith et al., 2009). Reliability is also about stability in the findings. When conducting research one creates a text, make hypotheses of the problem develop theories that eventually will be rejected or confirmed through the stability of data processing (Østerud, 1998). When making a hypothesis or framing a problem, and making explicit interpretation theory, which one has as a starting point, the researcher shows pre-understanding (Coffey & Atkinson, 1996; Larsson, 2005) and this is at the core of the understanding of reliability, so when doing a research and master's thesis I

have to put myself in the readers shoe and see if the reader is able to judge and check the facts and statements that are done.

Critiques of qualitative research claims that reliability can get weaker when researcher categorizes the data as this or that, and the hunt for meaning from the researcher's side might get lost in the subjective so the real gets lost (Silverman, 2014).

Another aspect illuminated is the question of truth and reliability when the researcher conveys the data after an interview. Dingwall is critical to how the data becomes a result of the researcher's viewpoint and shows how the feminist researcher evoke "feminist narrative", black researchers evoke "black accounts" (Dingwall, 1997, p. 60). With this in mind reliability is reinforced by using transparency, and I have to show my own perspectives and perceptions. This way I use the principle of validity to create reliability.

3.13 Ethical Considerations

I view research ethics as an integral part of the research quality (Tracy, 2010) and have done my best to ensure confidentiality and follow guidelines for research in social sciences from NESH (Nasjonal forskningsetisk komite). A letter of agreement was formulated and signed with approval from NSD (Norwegian center for research data) ensuring that personal and organizational privacy is secured (appendix C).

During the whole research all sensitive data was secured and anonymized according to NSD guidelines and also according to my University NTNU recommendations about privacy principles and rights of participants. A consent-form between me as a researcher, the participant and my supervisor were signed (appendix A and B).

To secure interview persons anonymity and securely control the information, I kept contact information separate from the interview data (transcripts and audio files) and the informants where given pseudonyms.

The consideration of confidentiality in relation to the validity of the study and the use of thick descriptions have been consistently evaluated with regard to possible ethical consequences (Kvale & Brinkmann, 2009).

There could be many decisions along the way regarding this, for instance I had to deal with the balance of creating good contact with the informant without making them share more than actually wants to, or provoking the interview persons self-understanding (Fog, 2004) and showing respect to the interview persons autonomy.

4 Findings

In this part I will describe and illustrate the finding of themes that I found most interesting in decision making perspectives from the process of analysing the interview transcripts. I started with nine categories that I narrowed down to four themes that will be presented here. The topics were either recurrent themes through the interview or related to main questions in the interview guide.

The themes that is used in part 4 is meant to give an overview of the analysis and give some possible interpretations from the interviews. A more nuanced and elaborated discussion in regards of theory on these will be provided in chapter 5.

I chose to present the following themes:

- Three tendencies in regards of describing gut feelings.
- From gut feelings to rational thinking.
- Trust.
- Feelings as triggers in decision making processes.

For an overview of the nine themes found in the interview, and an example of three levels of analyses, see appendix E, F and G.

The informants are given fictive names: David, Paula and Diane. All the citations are referred and presented in italics in chapter 4.

4.1 Three Tendencies in Regard to Describing Gut Feelings

The findings regarding gut feelings was meant to see how they define the term and how their awareness of the phenomena is. All three agreed about how gut feeling is helpful in decision making, giving perspectives, but it was various and different perspectives regarding language to describe it as metaphors and stories with examples with implicit meaning or more explicit rational explanations, with a mix of language that seemed to come from the very place of gut feelings and the opposite of more rational thinking. Those two also being in various degrees of the conscious and unconscious layers (as described in chapter two as system 1 and system 2).

This gave me a reference to the intervention between how gut feelings and the rational mind interacts, interferes and creates the views they interpret, and also gives direction to how one explicit frame the attitudes one holds. It is an example of how the perspectives of these two systems relates to each other and creates the understanding of their views on an explicit level.

Analysing the findings, I found three tendencies explaining what gut feeling is. The first one is related to the term 'a sense' of something, the second is related to the 'knowing of what to do' based on rational explanations to how experience leads to unconscious knowledge, and the third tendency I see related to how they mention gut feelings in low risks situations, or situations that make them relax or feel trust.

I would like to state that the forthcoming claims of tendencies are presented in a way that artificially separates the phenomenon's as entities. In reality they overlap and are linked together but for the sake of presentation and for later discussion in chapter 5 I will present them separate.

4.1.1 A Sense of Something

The description of it `as a sense´ is a description of something making them aware of this something. It is a sudden shift of awareness and appearing in this context is the sudden insight that makes an explicit action. This action also indicates a movement from an implicit feeling or sense, that becomes explicit for the individual.

you get a sense when something doesn't look right, it doesn't feel right, and then I think that's the sort of intuitive judgment that I think, you know, we totally underestimate really in a lot of situations -David

there is a sense of rapport, with the person, I think I'm thinking about something around whether it feels okay, like I'm feeling the degree of feelings around anxiety and stuff are much lower -Paula

I just know what to do -Diane

The term `sense of´ is used explicitly quite often and giving a bit vague implication to what it really is from all three informants, but I analyse it to be a part of an unconscious process that gives the sudden insight to the rational mind.

4.1.2 "I Just Know What to Do" - The Rational Explanation to Learned Skills and Experience

The other tendency is the use of explaining it rationally based on the experience of it as something that has become automatic.

Diane claims to see gut feelings as something that gives almost like a sudden clarity on some level: *I just know what to do*. This is followed up with:

my brain doesn't spend much time thinking about it because I just know, it just knows what to do based on the experiences of all the other thousands of decisions that have looked exactly like the one I'm trying to make, its automatic.

In this example Diane reasons logically and sees gut feelings in close relationship to the rational mind. Diane states it comes from experience and confidence as she reflects upon it as a learned skill. Paula further gives the credit of gut feeling to *my values and beliefs system* as it has become what she calls her intuition since she says it is not something she is *actively conscious about*, and including creative metaphor as saying *it is in your bones*.

Diane continues *I'm not having to access, parts of my thinking, that had never seen this before and if my brain was a light bulb that the light wouldn't be shining bright, it just be sort at this very neutral so happening in the background.*

David explains *because I've worked on so many creative problems over my career it's like, I know if it just put it in the back of my head and, something will pop out.*

These statements I transfer to making gut feeling to a product of earlier learned skills from experience, and an example of how they are able to be intentional and describe their consciousness and the object of attention as they describe their construct of perception.

Diane explicitly explains the process of using automatic resources as experience gets integrated:

that's become so cemented and so, and ingrained in your experience that you no longer need to access data and body logic you could just go to experience which says "bo-boom, bo-boom" (making a heart rate sound with her hands on chest) I know it's gonna happen.

4.1.3 Gut Feelings and Low Risk Situations

I draw the conclusion that both Diane and Paula use what they relate to as gut feeling when they see it as a lower risk situation. Diane explicit says it is like *running [at a] very steady pace* and she doesn't exert herself mentally or cognitively as it is within her comfort zone. Being in a comfort zone implies it is not a stressful situation. Paula seemed to share this view as she mentions the metaphor *in your bones* which I see as a way of describing it as something happening effortlessly in the background which also is something I transfer to the easier decisions, or the less complex situations.

David states how it gives him perspectives on *probably the most relevant thing and information around what's actually, you know what's the truth in this situation, so that's really, it's just a process really.*

This tells me he trusts this process, as it gives him some kind of release and truth-perspective as his gut feelings can suddenly enlighten special parts of a situation.

He also reveals a different aspect of gut feelings and the complexity in it which I translate to seeing him being aware of how one has to be critical to gut feelings as it may sometimes make things more complicated when stating *is being very difficult because it's all based on a partners perception or a sense of what's happened around a program rather than hard quantifiable facts*, which I relate to how difficult gut feelings is because they are communicating ideas or 'truths' as David suggests, but it's happening through a very implicit level, which might bring many implicit feelings and tacit knowledge as well. The group's ability to interpret the hidden meaning could be the basis of many misunderstandings and biases.

Summary

The analysing of their investigation of their awareness show how they explain from a rational mind, the 'knowing' and 'sense' in hindsight and gives perspectives on how it leads to some form of action becoming explicit.

The use of metaphors shows their implicit feelings and statements, but they are able to connect both systems; the implicit/explicit, the gut feeling/rational thought as they elaborate on the themes and thus bringing forward the implicit meaning of the whole process from a distanced and nuanced viewpoint. The second tendency is regarding rational explanations between experience and unconscious knowledge. The last tendency is connecting gut feelings to low risk situations.

4.2 From Gut Feeling to Rational Thinking

When asking how they go from using gut feelings to more rational thinking I was interested in studying the phenomenon of how they use their awareness to control this. What is the trigger behind it that makes them wake up to see some other strategy is needed than the previous one. Or maybe it would show that it is not always obvious for the awareness, maybe it happens automatically and unconscious?

All three described an awareness of *something's not correct*, as an *'impulse'* as David puts it. There also seems to be a connection to when the risk is higher, they start to search deeper for information, and thereby overrule their instincts from the gut feeling or it tells them to act upon something.

Paula explains how she used to rely on gut feelings more in the past until she realized that *my gut is not always right* and how it made her start looking for other evidence points but adds how *it's not quite natural way of working*. Diane talks about how gut feelings work in the background but when she has to work more considerate, and search deeper, she needs to investigate more purposely.

David gives an explicit example to the subject, *so you actually have to undergo that rational process of taking in information and understanding the situation and then let your intuition take over to systematize and create something new*.

I transfer this into how they seem to switch to more rational thinking when they are in need of a quality-check of their own ideas, thinking and reflections. There seems to be a point that makes them stop, an impulse or an awareness, that makes them go to a deeper more deliberate strategic thinking. I find Paula's statement of *not a very natural way of working* particularly interesting, as it points to her using some kind of will to override her instinct in some purposeful way. She also gives an example on how this impulse happens when she is trying to find out *if people are good fish* and actually having a mechanism that helps her make more robust decisions:

weighing up in my mind or perhaps they could be these doubts and then this sorts of cons(...) but then I sort of counteract that with my gut feeling, so I think it's like talking to two different sides of my brain basically.

Both Paula and Diane address the risk continuum as an aspect to start digging deeper and use rational thinking *constantly sort of weighing up in my mind I, I think about it probably like a risk continuum, like I'm weighing up the pros and cons* which make me think she changes to rational thinking when risk is higher.

Diane mentions how *when you have to write really considerate at, a very complicated situation that you've never been in before it feels like you brain searches and really*

starts to go deep in investigating lots of different things and thereby switching strategy and goes deeper into the rational mind than when using gut feelings.

This is in line with David's explanation on searching for a deeper layer of understanding on a topic *something's not quite correct or something doesn't feel right, you then start seeking information as quickly as possible and trying to get an understanding.*

David also explains an interesting aspect of the relationship between gut feelings and more rational thinking and the possibilities in it:

the intersection between rational and intuitive decision making is the most interesting thing and what happens at that, at that point of inflection, you know and when because creativity is just about bringing things together, into things that currently exists. But there are new generally a new combination so you know it's how do, you take, bring something together in an unusual way or in a new way, so I think it's that I'm not sure how it occurs that process, but I think that's an, and you tend to know when you thought something good.

As I look at the three interviews and look for differences and similarities it seems like the personality types among the informants is becoming something that I notice more and more. It is not just about their skill in presenting and creating an explicit meaning, what they are actually presenting based upon their personality type gets more and more of my attention. This is not something I reflected upon during the first interview with David but something that developed after the third interview and I saw these particular and personal ways of framing their views and I in hindsight started seeing David as especially creative and with a playful attitude towards the process of decision making.

Summary

A sense of something, and when the risk is higher, they deliberately start searching deeper. Using willpower to search for other perspectives.

4.3 Trust

The question of what needs to be in place for them to trust their own decisions brings up interesting aspects of how they work with the benefits from both rational and intuitive resources, and also an aspect coming from confidence. The three informants seem to find very different ways to cope with trust issues, and I see it as a part of their personality as that also would be connected to their inner level of confidence.

David talks about the importance of relaxing through the process of decision making, and don't pushing to find the answers. He mentions distance and peace *to be able to listen to what's in your head.* He describes it as *if I just put it in the back of my head and something will pop out.* This way I see him as trusting his intuition.

Paula answers the question of trust by talking about how she needs to feel like she's done a thoroughly process and thereby responding to a more rational process.

Though of course the feeling of *'doing a thoroughly'* process also can be biased to believe it's good enough even if it's not since feelings is not a quantifiable fact.

Diane reflects on how she *need to have consulted widely enough* which I also see as a rational way of finding trust, as in working thoroughly enough.

All three mention validating through others during this topic, *talk it out* as David puts it, while Paula mentions to *test it out with others*, and Diane *I need to have consulted widely enough* which I interpret as meaning both interacting with other people and looking to other sources of facts in a broader term.

In these parts of working with the analysis I felt the need for bracketing (Smith et al., 2009) and balanced it with Kvale & Brinkmanns (2009) hermeneutics of suspicion. My interpretation is that this could be because they actually do not trust their decisions, and instead seek validation in others even if its contradictory to their statements and make me wonder to what degree they are aware or biased.

Diane starts reflecting about how she doesn't worry about doing a right or wrong decision any more;

any decision is current for the moment that you make that decision and literally you could walk outside your office and a whole new set of circumstances arise that kind of now, say all that seems irrelevant but now we've got a whole new decision that we've got to make!

She elaborates on how she sees decisions as a part of a context that is ever changing and constantly evolving. She then claims, *that gives me a bit of freedom*.

Both David and Diane talk about how they trust their experience and skills. Diane mentions how bad things come, and bad things go, there is always a movement in everything, so with good intentions that is really the best you could do. David also gives an example on something similar with a story of:

You have to put something in, if you want to get something out, so you actually have to undergo that rational process of taking in information and understanding the situation and then let your intuition take over to systematize and create something new.

Diane explains how she is an empathetic person, caring for the ones involved, thinking on the impact it might bring for other stakeholders:

And I have to also be willing to accept that, you know decisions, some people benefit more than others from decisions that you make on a daily basis, and I can't do much about that and I'm on the receiving end of that as well, so you know that's just the way life goes.

This make me reflect on the ability to see things in a higher perspective, not focusing solemnly on the here and now but more long term and for a higher good.

David talks about trust in manners of the Eureka-moment as a consensus in a group:

where everybody turns around and guys that's a really good idea! Yeah you know! and I think that's interesting that people do recognize something when they hear

it, maybe someone else says something, you know and it's like he just people recognize there's sort of a of rightness to something

Summary

Trust seem to be established in relation to using both intuitive and rational recourses. The three has different perspectives of what is necessary for their trust and describes different levels of trust. David uses the intuitive to trust his decisions, while Paula and Diana need more rational strategies. All three talks of validation in others. David and Diane talk of higher perspectives in regard of establishing trust.

4.4 Feelings as Triggers in Decision Making Processes

This theme was interesting to me for seeing if I could get some information about how feelings arose in the participants when they had to cope with both the quick and simple and the more complex decision-making situations they had to encounter as feelings could reveal another level of insights as I see thinking, feeling and acting as close relation to each other.

4.4.1 Feelings

The findings described here show how the three persons had a spectrum of feelings from easiness to anxiety, depending on where their interests lay. For instance, there was more talk of anxiety in the participant who reported more interests on the outcome (Paula), while two other participants talked more about decision making as a process, seemed to look at it with more distance and better coping mechanisms (David and Diane).

I also noticed how all three described feeling in different manners than I usually see it based from my background in counselling-practice and theories.

There was a tendency to describe feelings implicitly, and I had to transform them to figure which feeling it could be related to as some of the descriptions were vague and described as a result of outside events and facts rather than their subjective emotions.

The three of them used metaphors, vague descriptions, or stories to describe feelings.

The term 'a sense of' was used extensively, and the vague ways of framing feelings often ended in descriptions that was 'kind of a *sort of* feeling' as Paula described 'sense of responsibility', and David describing which parts felt *easiest to cope with* which I translated to the feeling of easiness.

These are examples that show they rather used explanations that related feelings that where consequences of outside-events and system related, rather than what was going on inside themselves on a subjective level.

For instance, Diane chose to explain feelings of decision making implicitly by stating she didn't have any easy decisions because of hierarchical ways they solve decisions in her company. (She is left with the more difficult ones as she is in the top end of the hierarchy, and the easier ones have been dealt with earlier, which I transfer to thinking she implicit is saying that her decisions at some level do bring up some feelings for her).

David explained explicit how system related things could frustrate him:

It's not where an obvious decision is unlikely to be the one that's approved, so therefore becomes more about political and stakeholder management which is, as someone like me, that's very, that doesn't like the details, and likes the big picture and, is you know that sort of very frustrating to me.

Paula at the other hand, was the one who spoke most in regards of subjective feelings, personal emotions and also seemed to describe mostly negative emotions regarding decision making processes as worries and fears of the outcome, and more positive ones as *sense of relief* when the decision was done.

This is contradictory of Diane's focus on how even when things are complicated during the process and even if *it feels like there is a lot happening, but through experience and knowledge a lot of the decision-training can get through pretty quickly* intending she feels supported and confident because of her experience and previous knowledge.

David also had similar statements as he used his *creative background* help him in decision making processes *based on my experience and understanding* to help him cope with complex matters and giving him the feeling of easiness and so implicitly relating his answers to feelings but not explicit as he refers to more fact-based information on why or how things are related (his creative background).

David and Diane seemed to use metaphors and stories to talk about their feelings. Diane expressed how her *brain says you're able to process a lot*, and *I can feel it is quite complicated* without describing any actual feelings, but complications obviously leave her feeling something as she implicitly states so. Though she doesn't seem very concerned because she explicitly describes how she because of *experience and through knowledge a lot of the decision-training can get through pretty quickly*. As I relate to the feeling of easiness even when things are complicated.

Diane described complex matters in decision making as:

they're, discrete in their own individual right but, your brain says you're able to process a lot of them, simultaneously and quite quickly so is have a feeling of lot of motion in my head when I'm making these sorts of decisions.

Your brain says you're able to process a lot is something I translate to a feeling. The feeling could be coping. So, it seems like she is addressing how one can see complex matters as parts of a whole and that gives a relief, since they are not overwhelming on their own, and through objectifying it-she is able to process 'a lot of them'. The use of metaphors *motion in my head* is said with using her hands to show how waves are affecting her.

Diane also spoke about how she had a feeling of *this is often quite a feeling of, just there is no right answer-sort of feeling*. Bringing implicit awareness to a higher perspective on how to solve complex matters.

Summary

A spectrum of feelings from easiness to anxiety. Individual differences between feelings regarding a more process-focus or a more outcome focus. Feelings described mostly implicit.

4.4.2 Triggers

The participants were asked how decision-making situations could trigger something in them, and this led them to frame their answers with stories and examples of actions that occurred as a consequence of an emotion.

Both David and Diane described positive emotions and motivation in terms of working with decision making as a process, and not worrying about outcome.

David explained *yeah I'm always quite excited by things that are complicated showing a positive attitude toward being challenged and adding it's like discovering something new, I always think it's quite exciting to understand it adding with you can look at it from a creative lens and it's fascinating problem solving processes reflecting in a way that make me see him as an eager learner.*

Diane explains that there is a *natural layer* of anxiety considering making a choice in decision-making, and her worry is that she might not be able to foresee all unintended considerations, but still she saw this through a lens of not seeing a decision on whether a decision is right or wrong considering the outcome because she framed it overall in a bigger perspective. This perspective she later described as a humanistic lens.

Paula more explicitly described in terms of negative emotions that would be triggered, as worry and stress. She further described how it could lead to procrastinations and distractions which might incline she is a different personality.

This made me think that they have a bit different base for generating the strategic for both solving and getting through the decision-making processes.

David gets triggered by complexity to invest more action in the process, he gets motivated and eager to work more, he seems like he is playful and coping with creativity and expansion. Diane sees things in a humanistic lens as she says and seems free of the worries of the outcome, she is able to go along with the challenges as she is doing her best. I see her statements as a description of how she sees the world in a bigger perspective, and not stopping to worry or fears, that she recognizes, but it seems to be working in a steady pace anyway. Paula addresses the question most explicit and mentions procrastinations and distractions as concrete consequences.

Summary

I see these three informants' different perspectives in light of their personality type, that makes them react within such a specter within emotions. From curiosity to fear, which triggers different actions, which again triggers another set of emotions. I also find the aspect on not reacting to emotions that are triggered in the process interesting as it shows an aspect of seeing one's own emotion from a distance in the moment and the ability to overrule the triggered emotion.

5 Discussion

This discussion will be influenced by discussing my research question:

“What is the process of going from gut feelings to rational thinking in decision making situations.”

This thesis looks into decision making in a VUCA world and how individual perspectives affect how they cope with the process. The themes that emerged in the analysis in chapter four will be starting point for further reflections, but I will be reorganizing the order as the findings from the three informants gave a direction I did not anticipate in the beginning of this project. This means I see it as a journey through a spectrum from lower risk decision making contexts, through the rise of higher stakes, more complex situations, while discussing how the informants seem to reflect on their levels of awareness to the mechanisms they use to gather information, process and decide on what strategies to use.

One strategy is the gut feeling, the intuitive, emotion-based system 1, to the rational strategic system 2 based way of solving and coping with decisions (Kahneman, 2011). The journey through this is reflected in their personality types, their understanding and descriptions of emotions, triggers and actions that accompanied them through it.

5.1 Emotions and Risk

During the interviews there was a tendency to describe gut feelings related to the easier decisions and low risk situations as described in chapter 4.1.3 as the third tendency. This was not something being explicitly framed but I interpret the information like this because I found it unlikely that they would “run in steady peace” as Diane said regarding gut feelings, if they were really stressed.

This could mean two things. Either they are so experienced and highly skilled, so they don't find themselves often in situations where they become affected with concerns of stress and difficulties. The other explanation is that they actually don't find themselves in difficulty and challenging situations. This seems unlikely, with their work status considered being a part of the VUCA world.

This indicates they have high ability in terms of the capacity principle (Dijksterhuis & Nordgren, 2006) and are able to use domain and expertise specific complex situations as they have a motivational system and mindset that gets stimulated by not understanding as it triggers curiosity and the urge to learn and develop. This happens when the challenges fit the person's complexity of cognition and leads to an emotional response that motivates to more learning (Dawson, 2019).

This seems to be the case for Diane and David as they seem to find difficult situations interesting and not too worrisome.

The zone of proximal development range (Vygotsky, 1978) gives perspective on a zone that is just right for the individual. This indicates that everybody has a certain range that fuels motivation by feeling satisfied which I also relate to the feeling of receiving a

reward through the dopamine stimulated in learning processes that isn't just about the "liking" but also about a "wanting" and working toward a goal (Berridge, 2007; Berridge and Robinson, 1998; McClure et al., 2003). Examples of this are also supported by the findings in chapter 4.4.1. when describing feelings, David explains how system related things could bring up frustrations for him.

As I see him as functioning at a very high level of skill, I don't see his description on outside based events as a blindspot (Zinker, 1978), but more as being in an environment that doesn't answer to his level of understandings as he claims when describing himself "that doesn't like the details, and likes the big picture".

So is Diane's description in the same chapter, when describing how she is coping with difficult decisions "this is often quite a feeling of, just there is no right answer-sort of feeling" which I see as a framing that takes some of the burden of the process as she is seeing the bigger picture as David, but it can also be seen as way of blaming on "unpredictable changes" (Bennet & Lemoine, 2014) and by that creating a bias as an emotional detachment, though I don't see any evidence for this in this particular situation as she gives rich explanations and deep reflections on further topics.

While someone in the opposite end of the scale, that sees difficulties as more worrisome, struggles with emotions that creates an experience of frustration and negativity when not understanding (Dawson, 2019) that makes them loose motivation.

In that case one would need more support and scaffolding to perform and develop their higher skill. This would be in line with seeing different levels of maturity as an organismic-structural approach as an oak tree, and search for the possibility of learning and development in a supportive environmental and organismic factors (Fisher & Silvern, 1985). This is something I see regarding Paula's description of her worries and fears, and being a person that often describes her subjective negative emotions.

At the same time she describes an awareness (described in chapter 4.2) when claiming that her "gut is not always right", and "is not quite natural way of working". This is an example of how her skill might not be seen as constant but instead can be seen as able to jump back and forth through building skills as a nonlinear process building microskills into macroskills (Fischer & Yan, 2002).

For someone with a more easily triggered feeling of unmotivational one could be more easily subject to performing their actions on a automatic level (Reams et al., 2020) from system 1, thus more easily being subject to heuristic biases, entering stress mechanisms, and having lower capacity to consciously use system 2.

Another way to see gut feelings in relation to low risk, is that it can stall development if one is too relaxed as it also can make people loose motivation. If the proximal development zone doesn't get triggered at all, one might loose the ability to awaken system 2, and depending to much on system 1 with automatic and unconscious responses.

This might happen regardless of cognitive level or skill, for someone that domain and expertise specific complex situations as for instance David being too relaxed this could

activate biases as well. Growth for high skilled leaders at a certain level where one is doing quite well and coping with complexity feeling it easy, might create such comfort so personal transformations stops at a certain level not being able to renew or reinvent themselves (Eigel & Kuhnert, 2016; Jordan, 2002; Rooke & Torbert, 2005).

Summary

Gut feelings are often mentioned related to easier decisions. High ability to use domain and expertise specific complex situations triggers motivation for being at this certain level of challenge. Skills are not constant, but consist of microskills that are constructed by former levels which can be built for growth when scaffolded.

This leads me to reflect on how personality, emotions and triggers affects the skill in decision making situations, and this will be discussed further below.

5.2 Feeling Tone and the Phenomenological Point of View on Triggers and Emotions

“Mood is the semipermanent emotional tone within which a person exists”
(Flaherty, 2010, p. 66)

The participants emotional feeling-tone is a big part of how I analysed the information from the interviews. This is not something I foresaw in advance but appeared as I started analysing. How I regard their feeling-tone might look different from how they would describe it themselves, as it is tightly connected to the phenomenological point of view and the hermeneutic circle.

In general I would like to state that what actually triggers a reaction of emotion in the individual, is the part of objective and subjective reality (Kegan & Lahey, 2009) as they refer to feeling tone and emotional states in a spectrum from worried to excited each individual is also affected by the emergent web (Mascolo & Fischer, 2010) that is different from situation to situation.

Someone that feels less pressure might have a feeling tone that accepts higher levels of trigger without entering a reactive mode in the unconscious, implicit or system 1.

David and Diane seemed to get relief in connecting to a second or even third loop feedback level (Torbert, 2004) and this says something about a fit between complexity of cognition and situations. They are able to stay in the zone that motivates them as their zone of proximal development range (Vygotsky, 1978) functions well within higher level of complexity as they are stimulated by challenges and the right amount of challenge within the complexity of the VUCA world without getting overly overwhelmed (Kegan, 1994).

I thereby see the range of development regardless of low or high risk, simple or complex decisions, but more as an individual reference according to fitness of personal level of cognition and challenge of the situation as it motivates on individual levels.

The feeling-type has consequences for the decision-making skills.

David's starting point (described in chapter 4.4.2) "I'm always quite excited by things that are complicated" he implicitly says something that might show that he has a high tolerance for challenges, and in this connection, I relate that to high-risk situations. He gets motivated and connected to motivation and positive feelings as Fischer (1980) claims there is no separation between thought and action. This way he will not as easily end with trying to transform the unknown into the known and in that process end up with biases (Kahneman, 2011; McNamara et al., 2013). In David's case this could be motivated by the feeling of curiosity, which gives a higher tolerance dealing with uncertainty or ambiguity (Harney, 2018).

So could Diane's "humanistic lens" (described in chapter 4.4.2) which she describes as creating a positive outcome-based viewpoint on process of decision making, as long as you do your best. She feels in coherence with her higher meaning and thereby has more range within her complexity of cognitive skills that helps her stay more open and willing to learn as she is motivated when dopamine is triggered (Berridge, 2007; Berridge & Robinson, 1998; McClure et al., 2003).

What makes it able to stay open is the right amount of dopamine, which is stimulated through the right kind of challenge as it awakens the motivation to learn or develop a new skill according to dynamic skill theory (Fischer, 1980; Mascolo & Fischer, 2010; Fischer & Silvern, 1985).

As Paula mentions how worrying might lead to procrastinations, it says something about her psychological structure, as emotions are helpful in revealing something about an individual's meaning, as emotional experience reflects what a person wants to do and has a tendency to do (Mascolo & Fischer, 2010). This makes me wonder if procrastinations are a result of the implicit and unconscious within system 1 (Kahneman, 2011), that somehow leads to not acting in the moment and indicating coming to the edge of own proximal learning zone (Vygotsky, 1978) and losing motivation to continue.

Dopamine levels are activated by both fear and typical positive emotions but leads to different focus on what is perceived as a reward (Berridge & Robinson, 1998).

This means there is motivation to develop and learn either way if it's based on worries or excitement. What is interesting is how it motivates and creates a drive to search for a deeper learning and not give up without doing more thorough work. It also shows how it is related to their domain specific knowledge and expertise in terms of how micro development skills (Fischer & Yan, 2002) create a fundament for growing and developing within action inquiry and level of loop-feedback (Torbert, 2004) that creates the feeling of happiness and satisfaction when one are at adequate levels for own ability, as a zone of just right. What then steps forward is how they frame their statements in systems of understandings. This will be discussed below.

Summary

Emotional feeling tone is subjectively described in a spectrum from worried to excited. Feeling tone lays a foundation for perspective taking. The zone of just right creates satisfaction and triggers a wanting to learn.

5.3 Language and System-Making as Implicit and Explicit Knowledge

I got interested in how they presented their implicit meanings on the subject through language and framing to see if it could reveal some insight to how they built their systems of understanding and their degree of awareness to seeing themselves from a meta-awareness perspective (Jordan, 2002).

Seen in light of Mascolo & Fischer's (2010) understanding of development and systemic thinking development the ability to generalize and abstracting is the foundation for creating a system of system.

Throughout this thesis I started reflecting upon the compliance between the terms implicit and explicit and the use of Kahneman's system 1 and 2. Can system 1 can be explicit and conscious and if so how?

By looking at their language and framing skills, in for instance chapter 4.1 (three tendencies in regards of describing gut feelings) I got access to see how they presented their knowing, how deeply the understanding of what they knew, and how well connected the conscious and unconscious neural networks were brought forward.

As some of their explanations regarding gut feeling are sometimes vague and difficult to grasp it might indicate that their semiotic functions and their form of representation don't have the capacity to present their ideas in a linguistic way. Or one can see it as a variability of performance as the system 1 is implicit thus harder to make explicit because we aren't able to bring it into focus, and thereby harder to share.

For instance, one of described tendencies when describing gut feelings in chapter 4.1.1 "a sense" of something was interesting to reflect upon regarding language as it is a common term the informants used, but still there is much implicit meaning hidden in it.

It seemed like they were capable to frame the gut feeling when they used language from system 2 and explicit rational language. This I see in regards of how system 2 is slowing down, digging deeper, and consciously reflect upon their experiences leading to filling in the gaps created from system 1 that relies on limited information's and experience thus not expanding their knowledge (Kahneman, 2011).

I also relate this the nature of system 1 that makes us "lost in the experience" (Csikszentmihalyi 1991, in Mascolo & Fischer, 2010, p. 180), and automaticity that makes the informants switch to system 1 as it is seen as an instinct and automatic pattern when in need of judgment heuristics (Kahneman, 2011).

This might have its origin from getting lost in the experience and overwhelmed by emotions that overrule the process, so one becomes only partly conscious of what is going on in the moment of gut feeling because one gets biased to only focus on parts of the process and therefor misses the possibility to coordinate meanings and actions (Mascolo & Fischer, 2010).

This might be happening as they describe the second tendency in chapter 4.1.2 the knowing of what to do.

The knowing is implicit, a sudden insight, but becomes explicit as they act upon it and also when reflecting and explaining it rationally in hindsight through the conversation in the interview. The hindsight is a rational concept, one could wonder the information I get access to in the interview also could be a product of biases, as it goes through a change-process from the implicit system 1 to the explicit system 2.

This gives a perspective on truth-value and reality-concepts that could be discussed in relation to the level of skill of the individual. The ability to cope with complexity and biases that comes as a result of the creation of system and perspectives, which might be subject to transformation when articulated through language. This demands a higher level of skill of cognition to be able to implement from implicit to explicit, from simple to complex without distorting the content.

The overarching question is how they have become what they are, and how they have built their systems of understanding as it can be seen through their level of semiotic functions.

The topics of feelings and triggers seemed to reveal something about a deep core understanding of their system and framings that has consequences to their ability to cope with complexity in decision making situations. This is relevant in chapter 4.1.3 as they describe gut feelings in low risk situations. What is interesting here is that the definition of low risk situation is not something that can be defined universally, but individually and contextually. This means what is interesting is what in the situation that make each individual relax or feel trust, not the explicit happening.

Throughout the interviews I got familiar with tacit knowledge that might be found in the unconscious and implicit realm of blindspots (Zinker,1978) as they mentioned themes that made me analyse with a hermeneutics of suspicion (Kvale & Brinkmann, 2009) when framing how they trust own decisions but still seeks validation to others.

One could speculate if blindspots could be one of the explanations to why especially Diane and David chose to address the topic of feelings and triggers through stories of outside events and system related aspects, suggesting that system 1 biases them to not being able to focus more specifically inwards. But I don't have any evidence to this and instead suggest that this is the way they have learned to address the subject through their experience and development in the cultural habits in corporate world, thus having an implicit pattern learned from the explicit world they find themselves in.

The three participants showed different starting points and understanding of feelings and triggers that could be explained through seeing them as individuals and multi-influenced from their past as (Fischer & Silvern, 1985) which they have grown into and needs to be addressed and considered when discussing their building of understanding and perspectives (Mascolo & Fischer, 2010).

Summary

The term "a sense" might be used when we are overwhelmed and not able to frame things through system 2. The "knowing of what to do" also is a system 1 mechanism that is made explicit and system 2 based when acted out or talked about in hindsight.

The ability to make the implicit explicit is affected by the cultural habits of the environment.

5.4 Trust

In chapter 4.3 I analysed the findings and found how there seemed to be a connection between trust, working with both systems 1 and 2, and also an aspect of confidence. The level of confidence I relate to their feeling tone.

Mascolo and Fischer (2010) see thinking, feeling and acting as an important part of how we experience and act upon phenomena. How we enter an emotional state is referred to as a feeling-tone and is the base for defining a "dynamic psychological structure" (p. 186). Trust is also an emotional experience that reflects what a person wants to do or have a tendency to do and claiming our acts are "mediated by meaning" (Mascolo & Fischer, p. 151). This also indicates a high level of ability to regulate one's emotions.

I see a connection between trust and acting as David talks about relaxing through the process of decision making and not pushing to find solutions. Thus, seeing him as a very trusting and confident person that has good capacity of emotion regulation.

Paula's answer of "doing a thorough" process, can be seen in a different kind of feeling tone and a virtue of a necessity or it might become a burden dependent of what lies behind. Fear of not doing good enough or a wish to do her very best based on positive emotions and motivations.

How each individual has created this dynamic psychological structure can be discussed through terms of the relationship between thinking, feeling and acting as an integrative psychological structure has developed in light of mental structures and frames of reality as described by Russo and Schoemaker (2001) and offers a core of mental capacity which also is the lens we see the world through (Kegan and Lahey, 2009).

It also concerns the micro developed skills turned into macro systems (Mascolo & Fischer, 2010) that creates the fundament for higher meaning which again can be reflected as it makes them act according to the values and priorities that is meaningful to them. Thus, we get different answers to how feeling-tone, ability to trust and what levels of safety one needs to perform in range of his best ability of skill, this is also connected to according to Bandura's (1997) term of self-efficacy as ability to cope with environmental influences.

This I see as relevant for looking at their coping mechanisms with challenging situations and decision making situations as it make me reflect upon the connection between cognitive skill, their framing and their edges of their proximal learning zone (Vygotsky, 1978) as for instance fear, worries and negative feelings limits their skills to a lower level of capability, which again might limit the possibility to develop without sufficient support and scaffolding.

When the participants describe different levels of ability to cope with stress, David explicit mentions distance and peace "to be able to listen to what's in your head" which is system 1 related and shows his confidence and trust in own intuition and ability to take a step back. It also reveals his ability to trust.

Paula and Diane mention "doing thorough processes" and need to have "consulted widely enough" which I see as system 2 related strategy as it is more effort directed to action, and what needs to be at place to do this is the ability to regulate emotions to for instance counteract on stress, but it could also be in system 1 as the feeling of "doing thorough processes" can be affected by feelings for terminating when it can be considered as good enough.

This could be discussed further in terms of gender related theories, or feministic theories (D'Andrea, Ivey & Ivey, 2012) or related to psychological theories on worries and fears and its implicit and unconscious meanings from for instance Kegan & Lahey (2009) since there is mentioning about the need of validation from others, which might could be analysed as a lack of trust in self.

Summary

Trust is seen in relation to confidence as a feeling tone. How we experience and act upon phenomena's demands high level of ability to regulate own emotions.

5.4.1 Higher Perspective on Trust as a Higher Level of Skill

The higher level of trust, the more easily one is able to cope with the decision-making processes, as one is able to trust a higher perspective in decision-making processes regardless of outcome.

One might compare the stages of building trust to Maslow's theory of needs and motivation (Taormina & Gao, 2013) where the fundament has to be solid before next stage can be entered. This is also the case for building higher lever skills for coping the decision-making processes.

I will go back to discussing the levels of the informant's statements in regards of the three levels of "loop-feedback" as it says something about their ability to combine action with inquiry to decide "what action is timely" (Torbert, 2004, p. 13).

The level of "loop-feedback" says something about degree of awareness to cope, communicate and act in accordance to own insights and put into reality making the implicit explicit. On the highest level of "triple-loop feedback" one is able to act in accordance with a higher perspective or super vision that enables one to see what is going on in several layers and giving attention to the needs of the situation with high level of skills. This I see in accordance with a higher level of trust as it possesses the same type of qualities and giving reason to look at the elements of trust in regards of the individuals level of development (Rasmussen & Ræi, 2020).

The higher level of loop feedback the better ability to cope with the challenges of the VUCA world because they adjust from a higher level of understanding and meaning making which again improves the range within the approximal developments zone (Vygotsky, 1978) and ability to stay within their range regardless of being in complex situations.

Gelatt (1989) states there is a paradox to be positive in face of uncertainty as it is something that often bring up unpleasant connotations for people, but with ability to

reflect back and forth, one evokes flexibility and increasing the ability to respond to changes and old habits. Both Diane and David are at higher level of perspectives and with a high ability to explicitly share their reflections, and this is also what Mascolo & Fischer (2010) states as the best way of learning. I also see them at a high level of double or triple-loop feedback and having a higher perspective on their reflection's.

An example of this is Diane mentioned how she is an empathetic person that cares for the involved but still needs to cope with not expecting to control the outcome and seeing both herself on an individual level as a part of this on system level. (Described in chapter 4.3).

And I have to also be willing to accept that, you know decisions, some people benefit more than others from decisions that you make on a daily basis, and I can't do much about that and I'm on the receiving end of that as well, so you know that's just the way life goes

This statement also reveals something of what is her basic values and belief system, which she coordinates her perspectives around. She is very open-minded and accepting of unknown outcome and changes. This is the core of Krumboltz (2009) theory on happenstance theory.

Awareness and trust give the higher order structure based from the self-defined meaning that individuals use to regulate themselves (Mascolo & Fischer, 2010).

It is an example of how abstract principles gives meaning to a person that makes them act in accordance to a higher value and priorities. This kind of ability to connect with own abstract principles and find meaning is the basic in finding trust and security in uncertain situations. This further leads to reduced stress levels, and ability to cope with difficult and complex situations. It is also interesting to know that high environmental uncertainty actually strengthens relationships between self-sacrificial leadership and followers (Zhou, Long & Hao, 2016), this might bring some awareness on the pros and cons to the environments role in a person's possibility to develop into a more trusting feeling tone and also some reflections on how to see skills as a broader oak tree, and not as a defined ends (Fisher & Silvern, 1985) since this development is connected to the environment one is learning and developing within.

The ability to connect to abstract principles is based on having a higher degree of awareness that that gives capacity of cognitively understanding complex systems in own process (Volckmann & Jordan, 2005) as well as helping them learn in the moment because of better fallback and coping mechanisms (McCallum, 2020), showing that higher levels of development have more and better options around this. This might be a point of skill that gives the possibility to grow more trust through learning to cope with unpredictable events.

As for instance what might happened when David described when "people recognize there's sort of rightness to something" and go a long with the sudden insight that occurred in the group eureka-moment as described in chapter 4.3.

The pleasure paradox is that people tend to seek the predictable events even if they tend to create less intense emotions than the unpredictable ones (Wilson, Centerbar, Kermer

& Gilbert, 2005). David's way to have a bigger perspective on things might suggest he has a high tolerance for unpleasant feelings, and high coping mechanisms like salutogenesis and resilience (Eide et al., 2008).

To be able to trust own decisions it also is the need for meta-awareness (Jordan, 2002) which is a basic skill to be able to reflect on its own capacity to create frames that we see the world through. Framing the world as scary and worrisome, or framing it in regards of a process one trusts free from worrying thoughts on the outcome is also influenced by how effectively one manages to communicate and sell options to others (Russo & Schoemaker, 2001). On an individual level this also might affect the way one constructs and work through the process of decision making since as earlier described indication there is no separation between thought and action, since thought reflects sensory-motor impulses and skills (Fischer, 1980) creating more or less stress for the individual. With higher degree of meta-awareness, it is thereby easier getting others to listen to you and which in turn strengthens your trust because of the feedback you get from the surroundings. To trust one's decisions, it would be helpful to use knowledge and awareness from the discourse one finds oneself in to maneuver through the process. Meta-awareness (Jordan, 2002) and knowing one's own discourse as for instance human capital in socio economically effective perspective (Sultana, 2018) gives knowledge of what is expected through the surroundings perception on external and social life in an organization, and the higher level of meta-awareness the higher capacity to see discourse one has to handle expectations and requirements of between the layers of individual, social and organizational layers. This might give a different perspective on as all three participants mentions to "talk it out" (David), "to test it out with others" (Paula) and "I need to have consulted widely enough" (Diane) to trust ones decision and this is a part of a natural habit in the discourse they find them self in. It might be an expectancy and regarded as a competency to discuss and seek validation through others as it shows a ability to cooperate, instead of seeing it as a lack of trust and independency.

To develop trust in one's own ability to trust one's decisions it is important to be in an environment that is supportive of your skills, so one can rehearse and improve the skills through learning by building on existing knowledge according to (Fischer, 1980, Mascolo & Fischer, 2010, Fishcer & Silvern, 1985). This is also more or less accepted in different kinds of discourses, and the ability to both live up to the expectations as well as being able to see one's own part in creating the environment as well demands ability to be able to frame well.

One has to develop to a higher level of complex systems of "system-object relationship". This is also a higher degree of awareness as one is able to look at a subject with more distance and also what lenses one sees the subject through. This is related to the higher level of loop feedback one is able to connect to, the more ability one has to see oneself and act according to what is needed in the situation and avoid getting biased by blind spots (Zinker, 1978) to for instance reduce anxiety and stress in decision making processes. Awareness also increases the ability to discover one selves underlying mood or personal tone, which I see as a source to finding information about own judgments, choice of actions and learning about one selves as mood maintains our self-esteem (Flaherty, 2010).

Summary

Higher perspectives might lead to greater awareness and better coping mechanisms in decision-making. Self-defined meaning is the starting point to self-regulation which increases the ability to cope with complex situations.

5.5 Sense of a Growing Awareness Through Systems

The term "sense of" was broadly used when explaining gut feelings (described in part 4.1.1 as the first tendency) and can be seen related to language from System 1, as it is vague and might incline something intuitive, tacit, and a heuristic association (Kahneman, 2011).

The problem with referring with statements that indicate unclearness and lower conscious understanding I see in relation to spending energy on justifying for ourselves that we are right, because we get a feeling (Flaherty, 2010; The Arbinger Institute, 2016). The need to justify might incline there is not enough evidence-based rationality for it to be found and therefore one searches in system 1 related logics to explain. The problem is when we are overconfident and mistaken. The "sense of" feelings might be an example of language used when people tend to rely on limited numbers of heuristic principles, and transfer to simpler judgmental operations, leading to systematic errors and biases. It is as a heuristic system that Kahneman (2011) explain the process used to find answers to difficult questions, leading to adequate but imperfect answers, referring to seeing intuition as being based on experience and recognition. This might indicate that when one is not able to use as complex of cognitive tools as a situation calls for, one is more prone to biases.

Despite the tendency to use "unclear" language, I also found the second tendency that explicitly described Kahneman's description of intuition; "an effect of prolonged practice," and "skill and heuristics are alternative sources of intuitive judgments and choices" (p. 11) as described in 4.1.2 where they described automaticity as intuition and gut feelings.

This came forward from both explicit and implicit statements, for instance when Diane and David talked about how they can cope with complex situations because of their "experience and knowledge", or "creative background" and "based on my experience and understanding" (in chapter 4.4.1) and describing in regards of feeling it quite easy. Paula's statement in the same connection "a sense of relief when the decision is done", make me think that her relationship to the emotion relief is based on a different automatic pattern than the two others. Her gut feelings tell her it is safe when the job is done, and speaks about a different learned coping mechanism, focus of interests, skill, and maturity perspective.

The challenge with gut feelings is the ability to be self-aware, challenge and control the instinct of automatic pattern in for instance emotion regulation and thereby conducting processes at lower level capability than one actually has potentials for.

As there can be a gap between complexity in workplace and the capacity of leaders (Kegan, 1994) and as the organizational learning is dependent on how individuals share and communicate their knowledge (Cousins, 2018). I see this in relation to how the organizational environment supports and takes care of each individuals possibility for

growing awareness and raising their capacity for learning to work with their system 1 and system 2 and enlighten from unconscious to conscious, making explicit the implicit.

This can also avoid making the VUCA term an excuse to lean back (Bennett & Lemoine, 2014) and instead face challenges with proper adjustments. That means utilizing both the intuitive side (Gelatt, 1989) and the rational side in decision making.

As the participants' vagueness sometimes might indicate unconsciousness and a kind of "leaning back" and waiting for an intuitive "feel" or "sense", I also see an alternative explanation and natural way of trusting a process, and not meaning it will stay implicit, as for instance David explains *so you actually have to undergo that rational process of taking in information and understanding the situation and then let your intuition take over to systematize and create something new* (Further analysed in chapter 4.2, from gut feeling to rational thinking).

But there is a risk for the WYSATI-effect – what you see is all there is (Kahneman, 2011) as it might lead to accept the limits of their explanations too soon because the coherence seeking aspect of trusting their limited ability to explain with clearer descriptions and leaving the statements to be described in system 1-vocabulary is activated. But with pursuing system 2, and connecting the rational mind, their framing and language might become different or clearer. This needs proper addressed challenges, and the ability to transform into understanding and clarity (Reams et al., 2020).

Summary

When one is not able to use as complex of cognitive tools as a situation calls for, one is more prone to biases.

5.6 From Gut Feeling to Rational Thinking

When the stakes are higher, or when they start "weighing up in my mind" as both Diane and Paula addresses in chapter 4.2 they explained how they start searching deeper for information.

As the stakes become higher it makes them think slower, deliberately and in more effortful ways, which is the system 2.

Kahneman (2011) explains the challenge to control and override the instinct of automatic patterns, Paula's discovery of how her "gut is not always right" is such an example of how system 2 has discovered that system 1 has faults through getting distance from the experience. In doing so the system 2 has picked up a created a story from the automatic thoughts from system 1 in the unconscious layers. The question is where does this ability to perform this come from, what kind of awareness triggers this awakening of knowledge to get an aha moment that makes us able to perform differently and search deeper from system 2 and rational thoughts so the implicit becomes explicit, and the unconscious becomes conscious.

Descriptions of "something's not correct" or not right is mentioned by all three of the participants. Diane talks about how gut feelings work in the background when she has to

work more considerate which I analyse to an implicit expression of how system 2 overrides system 1.

Paula describes the similar process and adds how it is not a very natural way of working, as she has to bring in a purposeful way of working with contradicting thoughts between system 1 and 2. The "not natural way" is a way of describing how will is a part of this process. She has to slow down, and become deliberate, to change strategy which is a form of action on an individual level that has similarity to the description of Gelatt's (1989) decision making as the process of arranging and rearranging information into a choice of action.

Conducted in the conscious part of system 2 there is need of ability to self-regulate, to change from system 1 to system 2. The problem is how it can be tiring and when this will-exercise is done extensively its ability to perform weakens as we have lowered our glucose levels. (Baumeister, 2014). Thus, withdrawing to system 1 again.

David talks about "the intersection between rational and intuitive decision making" as a point of inflection and bringing things together that in the end "makes you know when you thought something good" which I also see as a place where selective attention needs to be functional and able to self-regulate to avoid for instance attention bias or mood and motivation congruence (Raila et al., 2015, p. 259).

David elaborates how creativity has a part in the process and creates a new combination. This means he is leaving some of the process to system 1 after letting it develop in system 2. Implicit he explains the process of using both systems to make better decisions and showing a more conscious regulation of and trust in the two different aspects of the process.

To be able to use both systems one needs to have a higher degree of awareness, to be conducting these operations, one way to see his statement is that he already has become biased to mood congruence as he claims; you know when something is good. Since the feeling of knowing, is related to system 1 language and WYSATI, what you see is all there is.

The other option is to see his statement to actually being able to control two systems at the same time and get the best out of both. This can be related to his ability in the capacity principle could be very large, so his conscious system able to focus on large numbers of attributes, (Dijksterhuis & Norgren, 2006) and able to stay grounded in system 2, while using system 1 as support.

In addition to Paula's ability to state in subjective manners, there also was a tendency to describe in birds-perspective with higher perspectives. David explained how he got frustrated when forced to engage to much with the details, as he likes seeing the bigger picture. I see his example of the Eureka-moment (described in chapter 4.3) and consensus in a group as an example of this "where everybody turns around and guys that's a really good idea!" and also when he is talking about his "creative background", helping him cope with complex matters.

Diane spoke about her own humanistic lens that made her see the world and decisions with a specific way, making her feel free. Mascolo & Fischer (2010) suggest that behavior

transcends inner experience and implies some control of action. The ability to connect to a higher perspective on things is the ability to cope and regulate own responses. Regarding system 1, it might make us act without checking with system 2 first, which in David's example might make him act on the feeling frustration. But because of his ability to cope with complex situations he has the ability to consider it thoroughly before acting upon his emotions. Still these skills of regulating might vary during the circumstances as Mascolo & Fischer (2010) suggest people change according to the emergent web where "range of levels depending on context, domain, time of day, emotional state and other variables" (p.164). This can lead to getting biased when connecting to system 2 in regards of higher risk situations as they transfer decision making to the realms of problem solving. That itself can be a source of difficulties as it often jumps over the process of gathering information (system 2) and jump to the part of problem solving instead, which then is a system 1 procedure, without being aware of it.

Summary

When the risk is higher they make more use of system 2, to be able to search deeper within system 1. This is a purposeful way of making the implicit explicit that requires energy, as this is self-regulation.

6 Conclusion

I will now summarize the thesis' findings, before assessing its limitations and make suggestions for future research. A qualitative phenomenological-hermeneutic study using in-depth analysis of three participating leaders have been undertaken through the IPA and the method gave answers to the different aspects of the research question. I have looked at these through theory and explored the possible connection between findings and theory in the discussion.

This research is conducted on three informants from the VUCA world of financial and business consultancy services to look at possible connections between findings and theory on the subject of how one goes from gut feelings to rational thinking in complex decision-making situations.

I chose to answer the research question by describing and discussing the themes that developed by analysing the transcripts in part four and bringing together the analyse and theory in part five where I discuss from the simple to the more complex decision-making situations. During the discussion, the themes are discussed non-linearly as the way of framing explicitly the levels of complexity that varies between the participants as they have different triggers and emotions that makes them define the limits to what is regarded as complex or simpler situations in individual ways, and this is also discussed in manners of individual views and perspectives based on how their psychological structures have been constructed.

6.1 Summary

Gathering information about the process of going from gut feelings to rational thinking in decision making situations, became an analysis of how people build systems of understanding from dealing with their own emotions, different degrees of awareness, language to elucidate implicit and explicit knowledge and the topic of what motivates. The eagerness or the lack of it to learn and develop came forward in light of the different feeling-tones of each participant.

The challenges these informants described showed they were a part of the VUCA world and being highly skilled leaders that had to manage high risks in decision making context. What became prominent was their individual ways to define what risk is, based on their own perceptions from different cognitive skill, with domain specific knowledge and expertise that influenced their framing which again had specific consequences for their motivation as for instance the challenges have to be within the zone of just right to create the feeling of satisfaction.

The continuum from low to high risk showed they tend to trust gut feelings more when the risk is low and within the easier decisions, while connecting to more rational thinking when the risk is higher.

Feelings were described in a spectrum from easiness to anxiety and showed a difference between being more or less concerned with process-focus or outcome-focus, as well as laying the foundation for perspective taking, that could be controlled by emotion-regulation.

By looking at their language and analysing their system making as implicit and explicit knowledge, I got information about their systemic thinking as a starting point for how gut feelings develop into the rational realms and also suggesting that this ability is dependent of the cultural habits of the environment one is part of.

Trust appeared as a theme in context of both rational thinking and gut feeling. What separated the three informants was the degree of "confidence" that created different coping mechanisms to deal with trust issues. How we experience and act upon phenomenon demands ability to regulate own emotions because it affects how we experience things.

Having a higher perspective is a higher level of skill that leads to greater awareness and ability to self-regulate. Awareness is also the key to build robust systems of understanding, as when one is not able to use as complex of cognitive tools as a situation calls for, we are more prone to biases.

The process of going from gut feeling to rational thinking is a purposeful way of working that requires energy and self-regulation. Key words for coping this skill is motivation and being in the zone of just right.

6.2 Suggestions for Further Research.

To test the validity of this research a suggestion for further research would be to increase the number of participants in the research and even include people from different work contexts.

Throughout this project I have become more aware and attentive to conscious, cognitive and rational aspects as well as the unconscious, intuitive and sensing. The further research could as a consequence of this been discussed in matters of holistic theories as within for instance gestalt and psychosynthesis.

As I found a connection between gut feelings and low risk situations, further study could be related to framing more explicit how gut feelings are connected to high risk situations, as system 1 is activated when fear, worries and anxiety is involved since it is a part of our primal brain that activates the fight/flight-system and it also as well can lead to biases.

I also see possibilities in researching the element of a modern understanding of a "calling" that could be seen as inner passion and talents to meet the needs from social environments or expectations from family heritage related to how to solve complex decision-making situation in relation to understanding system 1 and 2 and discussing more into the details of today's current discourses as mentioned in the introduction.

6.3 Limitations to the Study

Saturation is when numbers of participants will not give more additional information to the subject, this is what I found difficult with the IPA method, it is hard to know when the work with informants, analysis and discussions is good enough, and there's no more information to be found. At the same time the strength of the IPA I see as the possibility to go in depth of each interview.

The claims in this thesis also should be further explored using a variety of methods and larger sample size of participants to show its validity.

Regarding the subject of implicit and explicit there are difficulties in defining the content as it is based on the operation of the mind, and the subjective life that emerges for the individual. This frames some of the difficulties I had with constructing this thesis, as the layers of implicit and explicit was a complex matter to try to untangle.

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Appendix A-Information Letter

Are you interested in taking part in the research project?

“Decision making and different degrees of awareness?”

This is an inquiry about participation in a research project where the main purpose is to *investigate how leaders improve their skills for decision making*. In this letter we will give you information about the purpose of the project and what your participation will involve.

Purpose of the project

This master's thesis purpose is to research on how leader's perspective on decision making processes is connected to different degrees of awareness on implicit and explicit knowledge and experience.

This is to see how awareness contribute to decision making processes.

Who is responsible for the research project?

NTNU, Department of Pedagogy and Lifelong Learning is responsible for the project.

Why are you being asked to participate?

You have been asked to participate because you have participated in a program and received coaching regarding leadership development.

What does participation involve for you?

Participation will involve an interview with me, of about an hour duration. This can take place at the beginning of March or when the participants schedule is appropriate, on Skype video conferencing. The exact time is agreed with each informant to suit them best.

The interview will be recorded on audio, and I will take handwritten notes along the way.

The interviews will be stored only until the research project is completed, and the data used as empirical evidence in the master's thesis will be anonymized so that information cannot be returned to you as a person or your firm.

Participation is voluntary

Participation in the project is voluntary. If you chose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you chose not to participate or later decide to withdraw.

Your personal privacy – how we will store and use your personal data

We will only use your personal data for the purpose(s) specified in this information letter. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act).

- It will be the researcher; masterstudent Eva Gjevik Skjevdal and supervisor Professor Jonathan Reams from NTNU, who will have access at the responsible institution.

- I will replace your name and contact details with a code. The list of names, contact details and respective codes will be stored separately from the rest of the collected data», you will store the data on a research server, locked away/encrypted, etc.
- The data used as empirical evidence in the master´s thesis will be anonymized so that information cannot be returned to you as a person or your firm.

What will happen to your personal data at the end of the research project?

The project is scheduled to end within June 2020. All data will be anonymized immediately and deleted at the end of the project.

Your rights

So long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

What gives us the right to process your personal data?

We will process your personal data based on your consent.

Based on an agreement with NTNU, NSD – The Norwegian Centre for Research Data AS has assessed that the processing of personal data in this project is in accordance with data protection legislation.

Where can I find out more?

If you have questions about the project, or want to exercise your rights, contact:

- NTNU, Department of Pedagogy and Lifelong Learning via Supervisor Jonathan Reams, email: Jonathan.reams@ntnu.no, phone: +47 73591651.
- NSD – The Norwegian Centre for Research Data AS, by email: (personverntjenester@nsd.no) or by telephone: +47 55 58 21 17.

Yours sincerely,

Supervisor

MA student

Jonathan Reams

Eva Gjevik Skjevdal

Appedix B- Consent Form

Consent form

I declare that I am willing to be a participant in the project about decision making.

I am aware that I can withdraw from this project at any time during the research; either during the interview, or at any given point in the process without having any consequences for me.

The project is approved by NSD, Norwegian Center for Research Data AS and thereby subject to ethical guidelines for anonymization as well as for storing and use of data material.

I have been informed, and I am aware, that the conversation with the researcher is confidential, the interview will be recorded, and transcribed. (The recordings will be destroyed once the transcription has taken place).

I have received and understood information about the project and have been given the opportunity to ask questions. I give consent:

- to participate in *an interview*

I give consent for my personal data to be processed until the end date of the project, approx. 2021.

(Signed by participant, date)

Appendix C- NSD Approval

NSD Personvern

21.02.2020 13:00

Det innsendte meldeskjemaet med referansekode 584182 er nå vurdert av NSD.

Følgende vurdering er gitt:

Det er vår vurdering at behandlingen av personopplysninger i prosjektet vil være i samsvar med personvernlovgivningen så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet med vedlegg 21.02.2020. Behandlingen kan starte.

MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde:

nsd.no/personvernombud/meld_prosjekt/meld_endringer.html

Du må vente på svar fra NSD før endringen gjennomføres.

TYPE OPPLYSNINGER OG VARIGHET

Prosjektet vil behandle alminnelige kategorier av personopplysninger frem til 01.06.2020.

LOVLIG GRUNNLAG

Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte kan trekke tilbake. Lovlig grunnlag for behandlingen vil dermed være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a.

PERSONVERNPRINSIPPER

NSD vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

- lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke behandles til nye, uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: åpenhet (art. 12), informasjon (art. 13), innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18), underretning (art. 19), dataportabilitet (art. 20).

NSD vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER

NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

Dersom du benytter en databehandler i prosjektet må behandlingen oppfylle kravene til bruk av databehandler, jf. art 28 og 29.

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og/eller rådføre dere med behandlingsansvarlig institusjon.

OPPFØLGING AV PROSJEKTET

NSD vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!

Tlf. Personverntjenester: 55 58 21 17 (tast 1)

Appendix D- Interview Guide

Interview guide & framing for the interview

Thank you for allowing me ask these questions about decision making processes. It is a great opportunity for me to get your perspectives on decision making as you have participated in leadership-practice reflections in 2019.

During this project you got a debrief with a coach after responding to a dilemma and received feedback with suggestions for how to develop certain skills according to your ability to reach a "new skill level."

This is interesting to me because I´m writing a master thesis on how different degrees of awareness influence decision making skills, and how we humans use implicit knowledge and experiences and make them explicit.

So, I would like to hear about how you, in hindsight, see your own decision making-skills after having reflected together with your coach, read articles and practiced the tasks you were given through the program. I would like to hear some of your perspectives on how you "decide to decide", and how you think decisions should be made. How you chose to frame this will give me the information I need for my thesis.

1. Introduction:

*The purpose for the interview (I am interested in looking at three main facets of the decision making experience, one being the external or systems related aspect, and the other is looking at your subjective experience. Another aspect witch I am also interested in is the interpersonal and relational component.)

* Information about duty of confidentiality and anonymity.

* Respondents current occupation?

*Can you describe some typical decision-making challenges you find yourself in, related to both short terms, and in the longer run decision making?

Decision making:

2) We might say there is a range in decision making context, relating to a spectrum from quick and simple to long and complex.

What kind of feelings are associated with decision making for you?

3) Some decision-making situations are easier than others. Regarding the "quick and simple" decisions you encounter, you might find that we have a continuum where some decisions are automatic, clear, obvious or "gut feeling "directed, while other decisions require more explicit thinking. In regard to the quick or simple decisions you encounter, do you get gut feeling responses as to how to handle them?

(If so, can you describe more about how you notice them, what they look like, where they come from?)

4) Can you describe how you experience the transition from gut feeling to more analytical and rational decision making?

5) What makes decision making more challenging? (Pause)

How does the context of external or system related aspect, subjective experience or the relational component frame this issue?

Do more challenging and complex decision-making situations trigger something in you?

(How does it affect your external actions and internal thoughts and feelings?)

6) What needs to be in place for you to trust your own decision?

7) How is this process of meta-cognition with reflecting upon decision making working for you? (Did you become aware of something? Anything you would like to add?)

Appendix E- Categories Found from Analysing

Categories found in the process of analysing the transcripts.

(with under-themes related to the categories).

1. Complexity on several levels in decision making
(Lots of stakeholders, day to day decision vs. the long term, the individual's vs the collective needs. Descriptions of the aspects of the internal and external factors that rises. The expectations on delivering quality, growth and the tensions that it might create, and coping or balancing this tension).
2. Feelings
(Creativity, easiness, anxiety, pressure, relief, responsibility to higher perspective on feelings. Often described with implicit language, and vague terms).
3. Gut feelings
(Told through stories, examples, "a sense of", rational and more creative ways of talking about it, described by metaphors).
4. Where does it come from?
(from experience, the unconscious, "in your bones"-metaphors, automatic, confidence).
5. From gut to rational
(seek more information, a process, risk continuum, discussing with peers and the unformal network, stories of the automatic and logic and data).
6. What makes decision making more challenging
(system related aspects, the implicit vs the explicit, higher risks and consequences, negative outcome, win-win or win-lose, a bigger perspective, you only see the top of the iceberg-metaphors', and the individual differences of people involved in the process, a description of "left hemisphere people vs more right hemisphere" people).
7. Triggers
(feelings as fear or excitement).
8. Trust in decision making (distance, time to reflect, validation through others, working thoroughly with the process do you best, accept).
9. Meta cognition and awareness
(habit, reflection as antidote to anxiety, learn from mistakes, practice the skill, decision making is where the interesting stuff happens).

Appendix F- Example from Conceptual Comments

(Conceptual comment on engaging in interrogative and conceptual level, to show an example of my own conceptions and perceptions when analysing)

| <i>Excerpt of transcription</i> | <i>Descriptive comment, describing the content of what the participant has said, the subject of the talk within the transcript</i> | <i>Linguistic comment</i> | <i>Conceptual comment on engaging in interrogative and conceptual level</i> |
|--|---|---|--|
| yeah I'm always quite excited by things that are complicated | Describing triggers in complex decision making | Excited. Describes a very positive attitude toward the complicated. | <p>A positive mind and way of framing. Perspectives are never right or wrong, just perspectives.</p> <p>In today's Vuca world one might get to hear positive framings a lot. The question is how real it is. Is it really internalized and learned, or is it framed as it is very "correct" to have a positive attitude and in the competitive environments even this can be a bias? In his case I think it is true or "real". His explicit framings are well tied together.</p> |

Appendix G-Example of Hermeneutic Circle in Analysing on Three Levels

| Excerpt of transcription | Descriptive comment, describing the content of what the participant has said, the subject of the talk within the transcript | Linguistic comment | Conceptual comment on engaging in interrogative and conceptual level |
|--|--|--|--|
| <p>I'm usual in that.. 'cause it's it's all left hemisphere focused people there employed for their analytical skills there... being interested in the detail whereas I´m on the opposite because I've come from a creative background where it's more about finding the ...you know understanding the big picture and making something very simplified ..because if you ..created a piece of negotiation ... (Transcript comment: not sure of the words, a bit indistinct sound) you have to really bring it distill it down, so it's basically essence ,like a Nike's just do it, you know.. so one of the few words that really sum up the whole thing, rather than 20 pages of PowerPoint to sort of get through to get your point across...</p> | <p>Explaining the connection between System related and his subjective meaning.</p> | <p><i>Left hemisphere focused people,</i> shows he has knowledge about the topic "typical types of people", (generalizations) which he uses to describe his implicit thoughts.</p> <p>Talks about his ability to see the <i>big picture</i> and at the same time to <i>make it simplified</i>. Shows his ability to translate things so its understandable for people, and this is his tactics ;<i>sum up,</i> to <i>get the point across</i>.</p> | <p>He has learned the skill of communicating to make people listen and follow him. He also has a interesting, almost a "catchy" language and ways of talking: "just do it", referring to metaphors that everybody knows and can relate to.</p> |

