Artful Change Agency and Organizing for Innovation
The Case of a Nordic Fintech Cooperative

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Doctoral School of Organisation and Management Studies

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The Doctoral School of Organisation and Management Studies is an active national
and international research environment at CBS for research degree students who
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and country level in a theoretical and empirical manner.

'I hardly know what I have said

- my words put all their feathers on

and fluttered here and there'

Emily Dickinson, Selected Letters

(1914, p. 143)

Acknowledgements

Seizing the opportunity when it occurs is a part of 'living forward'. Subsequently reflecting on and understanding what happened, even writing it up in a dissertation, requires one to step out of reality and glance back from the spectator's point of view. These two modes of engagement require very different capabilities. The former calls for active, externally oriented, communicative, enactive, collaborative – in short, sensemaking – capabilities, while reflection in the form of writing a dissertation requires spending an extraordinary amount of time in one's own company, at the desk behind the computer, poring over books and, additionally, making all the tough decisions on one's own. However, an author never accomplishes such a work by herself, even if it may look that way from a brief glance at the title page of a dissertation. Less visible is the assistance by the many supportive family members, close collaborators, friends and colleagues in academia and practice who, certainly in the case of the present dissertation, have contributed so much through discussions, comments, active listening and, most importantly, by being there when the task was difficult and overwhelming.

First and foremost, I want to thank my primary supervisor, Professor Daniel Hjorth: thank you, Daniel, for inspiring me to embark on a research project, for showing faith and trust in me, for encouragement and supervision when I needed it, for always having an open door and for being inclusive, helpful, humoristic and remarkably insightful. I also want to thank my secondary supervisor, Professor (MSO) Tina Blegind Jensen: thank you, Tina, for fruitful discussions, specific feedback and supervision. To both of you: thank you so much for your time, energy and appreciative approach to my ideas! Also, my warmest thank to FintechOrg's executive team, managers and employees for letting me into your everyday organizational life, to Hans and your executive team having the courage and showing me confidence and inviting me into your engine room and to Berit and Hanne for making meetings, observations and other activities happen smoothly in the busy world of executives. Thank you, Christopher and Jan, for co-creating the opportunity to make this project happen and for taking the time to discuss what followed from engaging a researcher.

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English summary

of the dissertation *Artful change agency and organizing for innovation*
– the case of a Nordic fintech cooperative

For quite a few years now, innovation has been high on the private and political agenda, both locally and internationally, due to increased global competition. Discussions of the concept often include the phenomenon of disruption, which is perceived as threatening, and which calls for us to create and embrace the new. In extension of that, the management concept of 'design thinking' is sometimes proposed as a way for managers to deal with this challenge. However, research into the intersection of the managerial aspects of innovation, design and organization remains scarce, and available literature on the topic predominantly consists of popular how-to books. Based on a case study, this project aims to contribute to research on innovation management and design management, which includes design thinking in the management discourse. It pursues this goal by exploring the concept of design thinking as a means of developing the innovative organization from a position within the Scandinavian critical reflexive processual approach to organization and management studies. The study explores organizing practices within the anonymous case organization, FintechOrg, initially taking an inductive approach as a way of laying the foundation for a possible subsequent deductive introduction of design thinking methods into a managerial setting at FintechOrg.

Theoretically, the dissertation sets out by reviewing literature focusing on metatheoretical debates within organization and management studies and then goes on to review the managerial aspects of innovation, which includes, for instance, the concepts of innovation and disruption. The managerial aspects of design are reviewed too. However, since some researchers claim that the concept of design thinking both reduces design practice, which is seen as its source (Amacker, 2017; Hjelm, 2005; Kimbell, 2011), and, as a concept in the management discourse, is paradigmatically inconsistent (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2008b, 2011), the dissertation invites additional literature into the theoretical conversation on design and management, including the organizational scholar Karl Weick's contribution to managing as designing (2004a, 2004b). The theoretical perspectives of the

dissertation conclude with a discussion that leads to the formulation of a new multi-diverse theoretical framework, based in part on Weick's work, which has the capacity to connect research fields across ontologies.

Based on the new framework I analyse the empirical material that has been generated through ethnographically inspired fieldwork and the processual approach to organization (Steyaert, 2012), which includes conducting experiments with the executives of the case organization. The new theoretical framework further paves the way for my analysis of the empirical material, which results in an understanding of the case organization's organizing practices regarding innovation and in the formulation of a new theoretical concept: *artful change agency*, which is proposed as an *alternative* to design thinking in the management discourse. Artful change agency should be understood as an umbrella concept covering three particular elements in the collective innovation endeavour: the capacity to drop tools (Weick, 1996, 2007) as a means to deconstruct the familiar, the capacity to build 'handrails' to cues in the periphery and an understanding of handrail-building as being constituted by six different stages of constructing our human environment based on small cues in the periphery (Weick, 2004b). The dissertation additionally contributes to the research literature on the new and growing body of sensemaking and innovation and to research on process theory.

Dansk resumé

Dansk resumé

af ph.d.-afhandlingen *Artful change agency and organizing for innovation*

– the case of a Nordic fintech cooperative

Innovation har været på dagsordenen en del år efterhånden, både i erhvervsliv og politik, bl.a. som reaktion på den tiltagende globale konkurrence. Innovationsagendaen omfatter ofte en diskussion af fænomenet 'disruption', som opleves som en trussel, og som kræver, at vi skaber og griber ud efter det nye. I den forbindelse bliver managementkonceptet 'designtænkning' af og til fremhævet som et 'mindset', man som leder kan tilegne sig og derved bedre håndtere kravet om forøget innovationskapacitet i sin organisation. Men forskning i krydsfeltet mellem ledelse af innovation, design og organisation er sjælden, og tilgængelig ledelseslitteratur om emnet består overvejende af populære sådan-gør-du-bøger. Baseret på et casestudie er formålet med dette studie at bidrage til forskning i innovations- og designledelse. Det gøres ved at undersøge begrebet designtænkning som managementkoncept som middel til at udvikle den innovative organisation med baggrund i en forskningsposition i den skandinaviske kritiske, refleksive og processuelle tilgang til organisations- og ledelsesstudier. Studiet undersøger indledningsvis innovationspraksisser i en anonym case-organisation, FintechOrg, induktivt som en måde at lægge grunden for en efterfølgende mulig deduktiv introduktion til design tænkning i en ledelsesmæssig kontekst i FintechOrg.

Teoretisk tager afhandlingen udgangspunkt i metateoretiske debatter inden for organisations- og ledelsesstudier og går derfra videre til innovationsledelse, der ud over innovation bl.a. også omfatter begrebet disruption. De ledelsesmæssige aspekter af design gennemgås også, men da nogle forskere hævder, at begrebet designtænkning både reducerer designpraksis, som ellers ses som begrebets kilde (Amacker, 2017; Hjelm, 2005; Kimbell, 2011) og er paradigmatisk inkommensurabelt som koncept i ledelsesdiskursen (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2008, 2011), inviteres yderligere litteratur ind i den teoretiske konversation om design og ledelse, herunder organisationsforsker Karl Weicks bidrag til design og ledelse (2004a, 2004b). De teoretiske perspektiver afsluttes med en diskussion, der

fører til et nyt teoretisk grundlag: 'the multi-diverse theoretical framework'. Dette grundlag konstrueres på basis af Weicks arbejde, som formår at binde forskningen sammen på tværs af de forskellige ontologier, der præger studiets litteratur.

Baseret på den nye teori analyseres det empiriske materiale, der er genereret via etnografisk inspireret feltarbejde og den processuelle tilgang til organisation. Inspireret af procesteori og Weicks koncept 'tool-dropping' (Weick, 1996, 2007) blev der gennemført workshops med ledere i case-organisationen. Den nye teori danner videre grundlag for analysen af det empiriske materiale, hvorved vi får indsigt i FintechOrgs organisering af innovation samt, på baggrund af diskussionen, et nyt teoretisk koncept: 'artful change agency'. Dette nye koncept foreslås som alternativ til designtænkning som managementkoncept. 'Artful change agency' skal forstås som et paraplykoncept, der dækker tre forhold i det kollektive innovationsarbejde. Det er henholdsvis evnen til at droppe 'tools' som et middel til at dekonstruere det kendte (Weick, 1996, 2007), evnen til at etablere 'handrails' til 'cues' i periferien samt yderligere en forståelse af 'handrails' som seks forskellige stadier i den konstruktion af vores omgivelser, vi skaber ud af små 'cues' i periferien (Weick, 2004). Afhandlingen bidrager endvidere til forskningslitteraturen inden for sensemaking og innovation samt til forskning i proces og organisation.

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Part 1 Opening,

the study and the case

Prelude: Time and innovation

During this study I have travelled across the globe to foreign destinations, subject to the working conditions for researchers travelling in order to share knowledge and insights with colleagues worldwide. Some close to my homeland, some farther afield. Specifically, I travelled to Sweden, England, Japan and Canada. Some of the longer trips crossed several time zones, as, for instance, Copenhagen–Osaka (Japan). Such a journey, crossing Russia and Siberia before reaching Japan, would take at least 14 days by train – now a rarely used form of transportation for travellers going from Europe to Japan, except for tourists seeking the experience of that unique way of travelling, via local sites of interest; nowadays, rail travel is outdistanced by air travel due to our focus on economizing on time.

Traveling from Copenhagen to Stockholm by plane would take about an hour, covering a distance of more than 800 kilometres. One would, however, remain within the same time zone. That changes dramatically on a trip from Copenhagen to Toronto, Canada, which spans six time zones and includes the paradoxical experience of travelling back in time as one approaches the west coast of the American continent. A trip in the opposite direction, from Copenhagen to Osaka, spans seven time zones and can thus be seen as travelling into the future. As travellers, we are quite used to changing the time on our wrist watches, but if we rely solely on our smartphones and tablets to manage our time, we would not even need to do that, because they automatically and smoothly adapt to the internationally decided local time.

The concept of coordinated standard time, UTC[1], is an artificial global phenomenon introduced by Great Britain – once the empire on which the sun never set – in 1847 and embraced in an international agreement in Washington, DC, in August 1884, at the International Meridian Conference, which was attended by a representative from each of 25 countries. They agreed to pick a place in London, Greenwich, as the site where time began – at the zero-degree longitude (Chia, 2003; Kern, 2003). When we move east or west in relation to this longitude and cross time zones we now need to set our watches back into the past or forward into the future, depending on our local point of departure.

Coordination of time as innovation

This system for controlling time-space and, accordingly, human behaviour was made possible by accumulated and shared knowledge, creative abilities, coordination, constraints, negotiation,

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[1] UTC stands for Coordinated Universal Time.

agreement and a collective intention about pursuing mutual purpose, which predominantly took place more than a hundred years ago. At that time, one of the arguments promoting the world standard time was that it would help prevent 'countless political, economic, scientific, and legal problems' (Kern, 2003, p. 12); it would, for instance, be 'important to know when new laws would go into effect and insurance policies begin' (ibid.). Also, Germany's five time zones were seen as 'imped[ing] the coordination of military planning' (ibid.). Despite all the good and rational arguments, it was the railway companies and not governments that instituted standard time in practice. In 1870, a traveller going from Washington, DC, to San Francisco would need to set his or her watch more than 200 times due to the different local times the journey would cover (Chia, 2003; Kern, 2003). This clearly illustrates the challenges involved in the coordination of time in societies that increasingly traded over long distances.

However, although standard time was agreed upon in 1884, countries around the world were slow to adapt and continued to use local time for years – Japan joined the standard time in 1888, Belgium and Holland in 1893. India still had hundreds of different time zones, and in Europe, France had the most chaotic time situation, as some regions had more than four different time zones, none of them in accordance with the standard time (Kern, 2003). Countries joining global standard time had to pass a law that made the specific national time mandatory, which required collaborative efforts across the political spectrum. In Denmark, for instance, the *Act on Time* was passed in 1894.

Viewing the founding of standard time as an innovation – in this case, the idea that the world needed a collective coordinated global time, followed by successive human organizing around that idea[2] – directs our perception of it as a fact that we almost take for granted today. Throughout the dissertation I will argue that innovations are constructed by processes running from vague impressions over a collective verbalizing process until it takes shape as what the organizational scholar Karl Weick calls *dangerous design*, as we shall see in Chapter 5. This shows the necessity of engagement of a collective of individuals involved in organizing and agreeing on

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[2] I will return to the different definitions of innovation; for now, I refer simply to my chosen definition, formulated by Hjorth (2012b).

an idea or specific invention. In this dissertation, I refer to UTC as an innovation, because measuring time is a key managerial instrument in workplaces worldwide, including in the organization that forms the basis of the present study. Measuring time, however, was also an outspoken constraint on the organization's employees' ability to innovate.

Chapter 1. Introduction

Innovation is currently a popular topic to address in national, international and political context. In May 2017, the Danish Government established a *Disruption Council* focusing on the future labour market and the exploitation of new technology for the benefit of Danish society;[3] similarly The European Union, has established an innovation agenda under the name *Innovation Union*, which seeks to stimulate 'an innovation friendly environment', 'to make Europe into a world-class science performer' and to revolutionise the collaboration between the public and private sectors.[4] There is a serious reason for this innovation focus. Some scholars emphasize that the situation may cause enterprises to decline due to what the popular business literature and newspapers now characterize as disruption: enterprises being closed or bought up by competitors due to what researchers view as their limited capacity to handle innovation (Christensen, 2000; Christensen & Rosenbloom, 1995; Henderson, 2006; Sandström, 2010; Sull, 1999).

Popular business literature and newspapers make the case for the need for innovation and offer case stories about companies whose marketplace success can be traced back to their ability to innovate (for instance the giant toy company Lego and the pharmaceutical company Novo Nordisk). Conversely, we also read stories about the near disappearance of companies such as Kodak, Nokia and Blockbuster after years of great financial success and global dominance, attributed to the lack of innovation. These cases of so-called disrupted businesses were also discussed during my fieldwork in the organization subjected to this study. The combination of a high-pressure market situation and discussions about disruption and the explicit emphasis on innovation as a way to strike back in that market was a topic, when I met the organizational members at a strategy seminar in late 2014. The CEO articulated the innovation agenda as follows:

'Intruders from almost everywhere threaten the banks, and the future costumers do not feel any loyalty towards their bank. They go for convenience, no matter who offers it. Our bank directors agree with us in this analysis. New actors in the market offer payment services. Companies like Lendino lend out money on better conditions than the banks. And I could go on. You know the

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[3] https://www.regeringen.dk/partnerskab/ (retrieved December 2018).
[4] According to the EU website http://ec.europa.eu/research/innovation-union/index.cfm (retrieved December 2018).

story. Our task is to support the banks with new products and services, and we have thus put innovation on the agenda.' (Field note, 8 December 2014).

This brief introduction referring to the present (local, regional and political) desire for innovation articulates the topic of the present research project: how should executives and managers cope with this situation, which concerns all of us, both as employees and as citizens? Obviously, putting innovation on the agenda should be the answer. However, how can this be addressed in concrete terms in everyday organizational life? That is the key question of the research project presented in this dissertation, which is explored through a specific case, a Nordic fintech cooperative that offers IT services to financial institutions, and which I anonymize as 'FintechOrg'. Here, an executive team sought to stimulate organizational innovation by explicitly putting it on the organization's agenda. The research project thus takes its point of departure in events taking place in real time in a particular organization, which is not always the case for qualitative studies.

1.1. Research interest and purpose

Innovation had been in my own focus for quite some time. For an organizational leader it is imperative to pay interest in the organization's future for the sake of survival. Practical managerial experience has driven my curiosity and interest in knowledge about how to approach innovation from a managerial position. In my own career I have either worked close to management or served as a manager myself, and I have often been involved, to a greater or lesser extent, in efforts to shape the future of the organization. In relation to the issue of how an organization's executive team can act in order to secure the organization's future, I also found it interesting to explore whether design thinking might be a means to that end. Design thinking had developed as a concept describing an organizational practice that a manager or an executive team could orchestrate in order to create an innovative organization. This was a debate in the design environment during the late 2000s, which I was involved in while serving as director of the Danish Centre for Design Research.[5] I have thus chosen to focus on the concept of design thinking, which, according to its proponents, when implemented as a so called management 'attitude' or used as a strategic tool, offers a way to achieve the desired goal of innovativeness (Boland & Collopy,

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[5] For information about the Danish Centre for Design Research, and the evaluation of the Centre in 2010, see Mejlhede, 2015.

2004a; Brown, 2008, 2009; Cooper, Junginger, & Lockwood, 2009; Glen, Suciu, & Baughn, 2014; Kolko, 2015; Martin, 2009, 2011).

The idea that design methods and a design approach to managerial decisions can guide actions leading to competitive advantages sounded interesting for practical managerial purposes. *The design of business: why design thinking is the next competitive* advantage (Martin, 2009) about the potential of design as an enabler of business innovation furthermore gave rise to discussions in the Danish design research environment, because it represented a new way of viewing the contribution of design.[6] Martin's book underscored this point. Based on my personal insights into the field of design I was thus deeply interested in learning more about design thinking in the management discourse with regard to organizational innovation.

My specific choice of literature is based on my research focus on how to handle the innovation challenge, on design thinking in the management discourse and on the debates at FintechOrg about innovation and disruption. This has led to a selection of literature describing why innovation is important today, and how we should understand the phenomenon from a research point of view. Additionally, innovation has also a negative consequence, because it increases global competition, which is sometimes described as disruption (Christensen, 2000; Christensen & Rosenbloom, 1995; Henderson, 2006; Sandström, 2010; Sull, 1999). Parts of the literature point to a need for new managerial competences to handle innovation in light of the increasing global competition competences (Biedenbach & Söderholm, 2008; Hjorth, 2012b; McGrath & Kim, 2014).

The design thinking literature propose that managers' design thinking 'mindset' or design attitude can be an answer to the innovation challenge. However, the promises of design thinking and the plea for managers and organizations to engage in this 'new strategic advantage' (Martin, 2009) has been questioned by scholars within design management (Johansson-Sköldberg & Woodilla J.,

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[6] It is part of this story that, based on a political decision, the art-based design education programmes in Denmark had been evaluated in 2000 and were now (in 2003–2010) engaged in a process of research development and, consequently, receiving a certain degree of political attention. Thus, a more nuanced exploitation of the competences of the art-based design schools' graduates was of interest to the design environment.

Cetinkaya, 2013), as was the concept in general (Amacker, 2017; Hjelm, 2005; Jahnke, 2013; Kimbell, 2011). The critics claim that the concept reduces design practice – the very practice that is claimed to be its source. Further, Johansson and colleagues (2013) specifically claim that as a concept in the management discourse, it is paradigmatically inconsistent, although in their assessment, this circumstance should not prevent future research into the concept.

Conducting research on organizational innovation can of course be approached in a variety of ways. Due to the above-mentioned research motivation and the practical innovation focus at FintechOrg, my interest is to invite a cross-disciplinary research field engaging with *the managerial aspects of innovation, design and organization*. With regard to the latter, it is also necessary to examine how innovation can take place within organizational life, which I do by inviting scholarly contributions to organization and management studies. I do this predominantly through the work of the organizational scholar Karl Weick, because he has contributed to the debate about design and management (Weick, 2004b, 2004a).

The purpose of the project is to contribute to research on innovation management and design management, and to do so by exploring the concept of design thinking in the management discourse as a means for developing the innovative organization based on a case study. Since an explicit innovation agenda was launched exactly when the project began, the new innovation initiative could serve as an opportunity to expand our knowledge of the relationship between the managerial aspects of innovation and of design. The purpose is thus to explore the practices of organizing for innovation inductively before a deductive move that introduces design thinking methods into a managerial setting at FintechOrg could take place.

I will thus, first, as my main research question, consider how the innovation endeavour is organized, formulated as follows:

How can we understand the practices of organizing for innovation in the context of a Nordic fintech cooperative?

The study thus takes it theoretical point of departure in the innovation management literature and in research on design management. Moreover, since both concepts describe activities taking place in the organization, it becomes obvious to also involve the literature on organization and management studies. Furthermore, since I seek a theoretical conversation with three separate but related fields that also show signs of ontological differences, the above research question is followed by a sub-question:

How can we construct a coherent theoretical framework, drawing on management of innovation, design, and organization studies, that enhances our understanding of organizing for innovation?

Now, acknowledging that the field of organization and management studies is rather comprehensive, I find it necessary to add that my own position within the field lies within the *Scandinavian critical, constructionist, reflexive and processual approach to organization and management studies.* I account for that position in Chapter 6 and refer to it as OMS throughout the dissertation.

1.2. Brief notes on methodology

Methodologically, the study is carried out through ethnographically inspired fieldwork in combination with experiments in the field. This represents a process approach to conducting research and my own position within an ontology of becoming. This led in part to the development of a new type of workshop, inspired by Weick's perspectives on sensemaking and tool-dropping (Weick, 1993a, 1996, 2007) for the purpose of unlearning outdated practices as a source for innovation. These workshops were furthermore carried out as a research experiment in collaboration with FintechOrg's executive team and middle managers.

In practice, as I encountered a surprisingly positive response to the experiments among the executives and managers during the fieldwork and experimentation process, I decided to let myself be absorbed by the process (Steyaert, 2012) in order to explore where that might lead my research. As a consequence, the tool-dropping workshops became a vital part of the study and the empirical material.

1.3. Results and contributions

My research interest and the call for innovation in general, and in the field in particular, contributed to creating a cross-disciplinary theoretical framework. This is woven together in a concluding discussion of my reviews of the literature. Central for this framework is the different research traditions' underlying subscription to or abandonment of an underlying subject-object dichotomy. This has two main consequences, according to my analysis of the literature: first, I found that the literature on design thinking in the management discourse alludes to the ability to constitute a capacity to connect fields of research across ontologies, which is being challenged; second, distinct inventions become easy to abandon, because they are clearly singled out as something people can decide either to realize or to abandon. Further, from a theoretical point of view, subscribing to a subject-object dichotomy worldview makes the experience of disruptive incidents more likely. I suggest that such a mechanism is to be found in a focus on what *is*, while a process ontology makes it easier to be open to change.

Theoretically and empirically, the concept of design thinking in the management discourse did not stand up to inquiry. The literature on the concept reflects an approach to organization and management that belongs to scientific management and modernity (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2008b, 2011), and according to my analysis, it further aims at connecting theories across ontologies, albeit tacitly. Still seeking a theoretical framework to apply on the empirical material for the purpose of answering my main research question, I found it necessary to return to the source of design practice – the preindustrial artisanal making, which is not burdened by modernity or industrialism.

The idea that preindustrial artisanal making can revitalize design thinking in the management discourse is supported by Austin and Devin's *Artful Making* (2003), which proposes artful making as an alternative to industrial making. In order to establish that connection, I draw a line from design researchers' references to Pragmatism and further on to artful making. Since both the Pragmatists, whom design researchers traditionally invite to inform the theoretical understanding of design practice, and Austin and Devin (2003) explore the artisanal making tradition, I find it reasonable to establish this connection. Additionally, Austin and Devin's perspective on

management enables an ontological correspondence between management and artisanal making, because they explicitly aim at developing an alternative to scientific management.

While Austin and Devin (2003) focus on how artful making can be connected to management from an OMS perspective, I find that the organizational scholar Karl Weick, with his position in OMS and his focus on the internal organizational life, contributes to expanding that perspective even further. Thus, by inviting Weick into the theoretical conversation, I can create a proposal for a coherent theoretical framework as an answer to the sub question: *How can different insights on the managerial aspects of innovation, design and organization form a coherent theoretical framework on organizing for innovation?* I argue that Weick's work has the capacity to connect different research fields across ontologies and thus makes it possible to form that coherent theoretical framework for the analysis of the empirical material. This is a central result of the study, based on my theoretical insights and my analysis of the literature as well as on the empirical situation and debates. I term the new theoretical framework a multi-diverse theoretical framework and consider it to be the first contribution to research on both innovation management and design management.

The result of my analysis suggests that putting innovation on the organizational agenda was counterproductive in relation to the desired goal. The innovation effort was reduced, because it simultaneously activated old managerial tools that suppressed both the results of the new innovation initiatives and the relatively successful traditional organizational innovativeness. Consequently, as an answer to the main research question *(How can we understand the practices of organizing for innovation in the context of a Nordic fintech cooperative?)* the dissertation makes the case that formulating an innovation agenda in an organization such as FintechOrg seems to be counterproductive. Additionally, while the official innovation agenda was unsuccessful, I became aware of another organizing practice that had historically improvised the development of organizational services. This practice proceeded unnoticed but, nevertheless, successfully.

The results of my analysis, based on the new coherent theoretical framework across paradigms, and the following discussion make it possible to extend that framework and propose a new

theoretical construct. I term this 'artful change agency' and consider it an alternative to the concept of design thinking in the management discourse and thus a contribution to the study of design management.

This is the second contribution of my research and should be understood as an umbrella concept that embraces several aspects of innovative organizational behaviour. Relying mainly on Karl Weick's sensemaking perspectives, it furthermore builds on critical design researchers' perspectives on embodied knowledge as an overlooked quality of design practice in the design thinking discourse; on Pragmatism offering a common foundation for, respectively, theoretical perspectives on design practice, the processual and critical aspect of organization and management studies; on Austin and Devin's (2004) concept of 'artful making', which reaches back to preindustrial artistry and making; and on the literature on the managerial aspects of innovation. The concept further contributes to literature on both the managerial aspects of innovation and the managerial aspects of design.

Based on the new concept of artful change agency I offer a detailed description of how innovation practices unfold by breaking down Weick's sensemaking perspectives into two reversed processes of deconstructing the familiar and reconstructing them in a slightly new manner (Weick, 2004b). These two phases are successively described in further detail, which brings out three aspects of the concept of artful change agency and, thus, three subordinate contributions: 1) deconstruction, described through three phases: moments of confusion, collapse of sensemaking and cosmology episode; 2) reconstruction processes, described as reaching out to cues in the periphery and, based on this, making sense together with collaborators; 3) the final process, which unfolds through six different stages of perception and construction, where small impressions beyond language occur and are construed in such a way that we end up thinking of them as discovered rather than constructed by human beings.

As a third contribution, I find that the development of the umbrella concept of artful change agency, based primarily on Weick's sensemaking perspectives, contributes to the literature on sensemaking and innovation. Despite the wider development of research on sensemaking beyond

Weick's work, research on sensemaking and innovation is still a new and emerging field (Maitlis & Christianson, 2014). By breaking down sensemaking to both deconstructing and reconstructing phases, including the additional details, as mentioned above, the theory about artful change agency contributes to the literature on sensemaking and innovation. Finally, I suggest that a part of my method of letting myself be absorbed by the process and experimenting in the field as a fourth contribution to the literature on process theory and experiments, which for instance Steyaert (2012) calls for.

The outline of the dissertation's structure further elaborates on the route to the contributions, to which I return after I have introduced the case.

1.4. FintechOrg – the case

In accordance with my aim of conducting research on design thinking in the management discourse, I considered that I would be more successful in finding a partner if I could promise a prospective collaborator to contribute to their business as well, rather than merely conducting academic research.[7] Hence, I opted for an industrial PhD and contacted a number of organizations in order to pursue my interest. This led me to FintechOrg, an organization within the industry of finance and IT technology, which, in accordance with my agreement with its executive team, will remain anonymous. In the following I thus refer to the organization as *FintechOrg*. Furthermore, I restrict FintechOrg's location to be one of the Nordic countries in which it operates. In the following I offer a short presentation of FintechOrg, its business and industry – limited to the information that is necessary for understanding the empirical setup for the research project.

FintechOrg develops and operates joint IT solutions for a number of national financial institutions. It maintains and expands a shared IT platform that processes the transactions for both smaller and larger banks as well as foreign banks' departments in FintechOrg's country of residence. On top of this platform, each bank builds its own interface for the interactions with its customers. The level of IT facilities needed today for the communication between banks

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[7] See Chapter 6 for further information about the conditions of an Industrial PhD.

and their customers, as well as for the banks handling customers' financial transactions, and moving values between bank accounts etc., necessitates collaboration through IT platforms delivered by larger providers. Consequently, the demand for IT solutions, adjusted to customers and society in general, is becoming increasingly intense and competitive, which is why only the largest banks in Scandinavia have in-house IT departments developing and securing the demands for IT services from their customers, and small banks join forces within the framework of an organization such as FintechOrg.

The case organization is not expected to generate earnings for its stakeholders. Although some income is required, it would become a challenge if it grew too high. This might seem peculiar in the world of finance; however, it is a part of the democratically constructed cooperative, in which the banks are members (some are external clients, though) and pay an annual fee for the continuous development and maintenance of the joint IT services. The member banks are the owners of FintechOrg and are supposed to generate the earnings. Additionally, they are mutual competitors. The latter could naturally cause some difficulties with regard to decision making on the board of directors; however, it is not a specific topic in the present work and will only be superficially addressed in the empirical material.

FintechOrg's annual report offers an overview of new solutions and improvements for clients, including turnover and profits. The annual reports for 2014 and 2015 show a turnover for the two years of, respectively, 1.126 billion (Nordic) kr. in 2014 and 1.211 billion kr. in 2015, while the annual result was 6.537 million kr. in 2014 and 2.674 million kr. in 2015. Thus, FintechOrg has a low profit margin during the two years; however, due to its purpose of supporting the clients' profits the preferred result lies at this level. Furthermore, the number of employees at FintechOrg grew from 651 in 2014 to 701 in 2015. This should however, be taken with a grain of salt, as it included the replacement of external consultants with permanent staff.[8]

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[8] The information about staff derives from conversations with employees and internal documents.

1.4.1. Innovation in the growing fintech industry

During the mid-1960s, several so-called financial data centres were established by the small and medium-sized banks formed by the Nordic cooperative culture. With the goal of developing and supplying financial institutions with IT, since the early days of the digitization of money FintechOrg has been one of the first organizations worldwide facilitating such a service. However, the technological development within finance has since the establishment of digitization of money increased dramatically, and today the number of businesses handling digital money increases with a variety of business models and purposes. These types of businesses, also termed 'fintechs', are a more recent phenomenon.

The fintech industry has lately attracted substantial attraction from the public. The figure below shows a Google search on the term 'fintech' that Patrick Schueffel generated in relation to a paper in which he defines the term *fintech* (Schueffel, 2016, p. 34). According to him a '[f]intech is a financial industry [or organization] that applies technology to improve financial activities' (Schueffel, 2016, p. 46). At the time when the current research project began (the blue arrow), the term was still more or less absent, as shown in the figure January 2015. Since then, public awareness and business interest have increased dramatically. Today the term is predominantly reserved for start-ups that offer financial services in addition to the banks' legal obligations and responsibilities.

Figure 1: The expansion of the public and industrial interest in the fintech industry
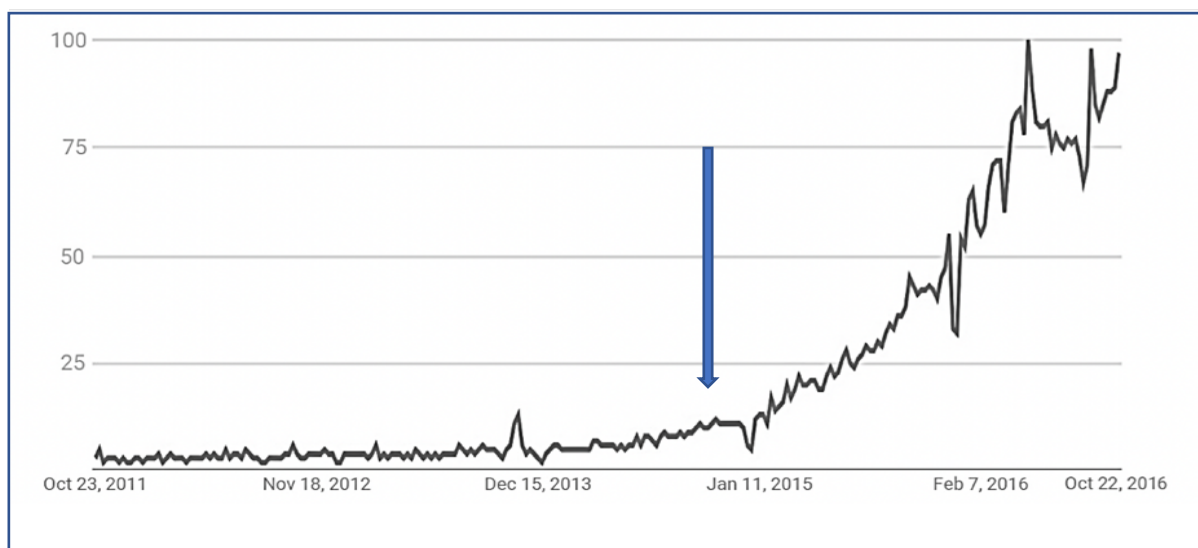
Within this rapidly growing industry, FintechOrg has roots that go back more than 50 years, and it has, furthermore, existed as the organization we know today since the early 1990s.

The decision to engage in innovation in the growing fintech industry was one of the reasons why the theme came to the fore in 2014 and 2015, as it was seen as a new growth industry threatening both FintechOrg and the banks. I have not examined the reasons behind the innovation agenda in detail and will not dig deeper into that, because it lies outside the scope of my research project.

The purpose of these opening lines about FintechOrg is to provide an understanding of the context for the project and the organizational setup. From my perspective, the many years in the market tell us that FintechOrg's adaptability and innovativeness have been relatively high, although the organization is a result of several mergers during the early years. The picture is not rosy, however, despite the attractiveness of its financial IT services. Over the years FintechOrg has faced savings, cutbacks and, most recently, the financial crisis in 2008, which reduced the number of local banks and resulted in a series of layoffs in order to adjust to the new reality. The organization was diminished to approximately half its former size, which naturally had had a negative impact on the employees' sense of job security and the atmosphere. However, this appeared to have changed January 2015.

1.4.2. The situation in January 2015: a paradigm shift in finance

When I presented in FintechOrg's reception on my first day of employment I was met by friendly and smiling people. I was surprised by the large number of people who were gathered in the reception that Monday morning on 5 January 2015 around 8.30 a.m. Admittedly, I had unconsciously imagined being the only newcomer, arriving in a fairly empty reception on this cold morning on the very first workday of the year. I was thus surprised to be one of 13 new employees who arrived that day. The reception area was occupied not only by the new employees queuing by the reception desk to be issued their entrance card but also their future colleagues or bosses, who came down the stairs to the reception to welcome them. After a while the new employees disappeared in different directions inside the building, one by one, accompanied by a new colleague or supervisor.

If I had imagined that this situation was unique, I soon became wiser. The organization continued upsizing by adding new staff. Six months later, a colleague articulated FintechOrg's situation as definitely a success, if measured by the number of new staff members. As he explained, there was a 'real job surge'. FintechOrg had hired 60–70 people last year and another 100 during the present year.

This success seemed immediate paradoxical compared to the CEO's statement during the strategy seminar about the threats and need for innovation. Nevertheless, although new jobs were established, there was apparently a need to continue to attract new clients.

The competitive situation of both FintechOrg and its clients was a topic at the strategy meeting I mentioned above. At this meeting, the CEO was the first speaker: 'How is the shape of the financial institutions?' he asked rhetorically as his opening remark and then continued by outlining his view of the threats to FintechOrg's clients (the financial institutions), including that commercial IT providers competed with the three national fintech cooperatives (of which FintechOrg was one), both on price and on IT functionality, and that some banks might wish to buy services from other partners (for example, larger banks). But one thing was the competitors' activities and movements in the market, another thing was that '[t]he biggest challenge is bank customers' loyalty,' the CEO said and referred to one of the largest national banks, which had recently released a new a payment solution for smartphones, an application called 'Mcoin'. Mcoin was launched in competition with an almost identical type of application, 'Slide'[9] developed by FintechOrg for the collaboration between the member banks. Here the bank customers' disloyalty referred to their use of Mcoin although the application was offered by another and competing bank – a non-FintechOrg bank.

The increasing competition within the industry was also articulated in the press. In late 2014, for example, a news outlet published an article about 'a paradigm shift in finance'. Titled 'The money is set free', the article referred to the music industry during the 1990s – how it lost market shares

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[9] The names 'Slide' and 'Mcoin' are aliases to preserve anonymity.

at a time when the main source of turnover was selling CDs and, to some extent, LPs. Now, the MP3 format meant that all of a sudden, music could be digitally distributed, so it no longer made sense for consumers to buy CDs. This situation is fairly similar to the situation of the financial industry today, the article stated: 'We have heard about this development step by step. Digitization takes over the banks' physical presence, and the use of alternative payment solutions forces banks to fight for control over the payment transactions that have traditionally constituted their livelihood.' Or, as one interviewee in the article, the director of an IT company's division for future business, put it, 'Banks have lost their monopoly on money management. They no longer control the format. The competition can come from anywhere – from eBay, from Google, from Apple. It is suddenly a matter of the consumers' terms, not the banks,' he says.'[10]

1.4.3. The managerial focus on innovation

For FintechOrg's operational purposes, the production of IT services, the organizational setup incorporated two main departments, respectively the Development Department, headed up by Anne, and the department for Architecture and Operations, headed up by Christopher. Additionally, the executive team comprised the CEO, Hans, his secretary and the heads of the management support functions: the chief financial officer, the head of communication and HR. Due to my interest in leading innovation, I was interested in following the executive team fairly closely. Furthermore, the most relevant team members to follow were Hans, Anne and Christopher as well as the head of business development, Petter, who referred to Anne, because to my knowledge they were the ones who had the biggest say about new initiatives at FintechOrg, besides the bank representatives with whom I was not in contact. Thus, in the empirical material we mainly follow these leading figures, who serve as representatives of the managers and executives as a whole.

1.5. The structure of the dissertation

The structure of the dissertation is organized into four parts, each of which in turn consists of several chapters. The four parts are *Part 1. Opening, the study and the case setting*; *Part 2.*

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[10] A local business newspaper, 29 November 2014.

Theoretical perspectives, *Part 3. Methodology, empirical material, fieldwork and analysis*; and *Part 4. Concluding discussion, learnings and further research.*

Part 2. Theoretical perspectives. In Chapter 2 I take my point of departure in metatheoretical foundations for OMS, laying the foundation for the theoretical discussions in the Concluding Discussion of Part 2. In Chapter 3, I proceed by reviewing literature on the managerial aspects of innovation, including definitions of and perspectives on the rapidly growing competition on the global market, on radical innovation and on disruption. Chapter 4 reviews the development of the concept of design over four sections. These follow the concept from the understanding of it as visual and industrial artefacts to a concept that enters the management discourse. The chapter furthermore explores how we should interpret this design thinking as an enabling factor of organizational innovation. In the final section, the concept is revitalized via a coupling of art and management, as seen through the lense of OMS.

Chapter 5 reviews the organizational scholar Karl Weick's (2004) sensemaking perspectives related to design and management, which simultaneously extends the OMS-based position of the theoretical framework. Of particular importance is the capacity of his work to connect research literature across fields and ontologies. The latter is clarified in the Concluding Discussion of Part 2, in which I discuss the theoretical perspectives and construct a *multi-diverse theoretical framework on organizing for innovation* for a conversation between the three theoretical fields of research.

Part 3. Methodology, empirical material, fieldwork and analysis opens with Chapter 6, which explains how the study was conducted as ethnographically inspired fieldwork over a period of 18 months. I account for my methodology and ontological position as well as the amount of empirical material and how I apply it. Chapter 7 presents the empirical material and offers an impression of the atmosphere in the field at the time when the innovation agenda was launched, describes the conditions for leading FintechOrg and presents the content of the interviews about innovation, time and banking. Chapter 8 analyses the empirical material by means of the developed multi-

diverse theoretical framework and offers an answer to the research question, together with the results of the analysis.

Part 4. Concluding discussion, learnings and further research is the final part of the dissertation. It is comprised of two chapters and an appendix that shows a visual representation of the developed framework based on the concept of artful change agency: *The dynamic change and innovation model.* Chapter 9 discusses how we can characterize the new theoretical construct, artful change agency, based on the multi-diverse theoretical framework for organizing innovation. Chapter 10 concludes the study by specifying the contributions of the study to theory and practice.

1.6. Reader's guide

Before I proceed to the next part of the dissertation, I will briefly offer a guidance to the reader in terms of my understanding of some concepts, as I intend them to be read.

First, normally, we would differ between management and leadership, especially when writing about innovation. We perceive the concept of management as the controlling part of the task of heading up an organization, and leadership as the softer side – supporting and nurturing people, being a visionary and so forth. Nevertheless, I will not engage more deeply in that debate but merely signal my focus on the soft part of heading up an organization, although I predominantly use the word 'management'. Furthermore, I have observed that the literature predominantly uses the terms 'management' although writing about leading innovation for instance in line with Dodgson (2014). Weick, too, uses the term 'management' and 'managing' but emphasizes a 'soft' way of 'heading up', namely by improvising and making sense together with organizational collaborators.

With regard to the different management concepts, when writing about the three different groups of managers at FintechOrg, I will use the terms 'middle managers' (at times without 'middle', though), executives and 'general management'. The latter covers both the executives and the board of directors. Another practical point is the concept of the organization, as its

meaning depends of the ontological position of the reader or the author. While process theorists regard the organization as organizing processes, other ontological positions will – roughly speaking – recognize the organization as an entity, which can be perceived as existing 'out there', and which can be subjected to disruption and other harmful events. While as a researcher I subscribe to the former notion, I nevertheless, for practical reasons, simply write 'the organization' although I do debate the process perspective of the organization along the way.

Another practical issue concerns the understanding of the specific case organization. FintechOrg is a cooperative, which means that it is owned and primarily governed by its members, which are approximately 40 local banks. For instance, the members of the board of directors are all bank directors and thus constitute a rather homogenic group of people. Furthermore, one point of view could be that FintechOrg constitutes the collected banks' shared IT department, which also raises the question of how we can understand that particular organization and its degree of independence and autonomy, and whether the results also concern the representatives on the board. Although this might have been both interesting and relevant to explore, it is another topic I will not address in the present context but leave to further research.

I review a fairly comprehensive body of literature, particularly in Chapter 4, which deals with the managerial aspects of design. In this chapter I focus on a group of researchers who criticize the concept of design thinking for leaving out, for instance, embodied knowledge and work with materials. These are Amacker (2017), Hjelm (2005), Jahnke (2013) and Johansson-Sköldberg, Woodilla and Cetinkaya (2013), Rylander (2009). For practical reasons I have taken the liberty of referring to this selected group as, for instance, *critical design researchers*, followed by their names in brackets whenever specific references are relevant. I include the individual references depending on the topic.

Part 2. Theoretical Perspectives

Introduction to Part 2

In order to construct the theoretical foundation and analytical framework for the study and successively answer the research sub-question, we now turn to Part 2. Theoretical Perspectives. It is organized into the following four chapters: Chapter 2. Metatheoretical reflections; Chapter 3. The managerial aspects of innovation; Chapter 4. The managerial aspects of design; and Chapter 5. Karl Weick on managing as designing. Since this part of the dissertation, which presents the theoretical perspectives, involves three different research fields I have found it important to create a framework that offers a connective capacity and lays the foundation for that meeting, and which may serve as the theoretical point of departure for the study. Thus, before I review the literature in the following three chapters, the first chapter of Part 2, I review metatheoretical reflections based on debates that have taken place within the field of OMS since the late 1960s. A brief note here on what I understand by metatheory is required, because this can be understood in a variety of ways. In my interpretation, metatheoretical reflections involve considerations of both the epistemological and the ontological differences that are accepted by the researcher who constructed the theory, to whom I refer. Thus, when I speak about metatheory it should be understood as an invitation to explore the more philosophical dimensions of the underpinnings of theory: epistemological choices and ontological bases.

The study is cross-disciplinary, and in order to understand the concepts that were debated in the field – innovation, radical innovation and disruption – in Chapter 3 I review the literature discussing these phenomena. However, since I position myself in OMS, I will also review research literature on organizational entrepreneurship that shares my critical, reflexive and processual approach to the managerial aspects of innovation. Chapter 3, furthermore, describes an understanding of threats to the organization, articulated as, on the one hand, disruption, hypercompetition, postindustrial multiple becomings and, on the other, organizational resistance.

The aim of Chapter 4. Is to provide an understanding of the managerial aspects of design, of which design thinking in the management discourse is a part. Initially I provide a brief historical overview

of the concept's position in the management context, which gives rise to the concept of design thinking in the management discourse.

Furthermore, I follow scholars who criticize the concept at a metatheoretical level (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2008b, 2011) as well as scholars (Amacker, 2017; Hjelm, 2005; Jahnke, 2013; Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Kimbell, 2011) who claim that important elements of design *practice* have been left out of the design thinking discourse. The problem, as they see it, is that design thinking discourse in fact reduces the very practice that its proponents claim is the source of design thinking. Moreover, I have found it relevant to review some of the concepts of the work of the American Pragmatists William James and John Dewey, in part because design scholars often refer to the Pragmatists, who due to their interest in art are seen as important philosophers for informing design practice, and in part because Pragmatism is a philosophical foundation for OMS. Pragmatism has thus a connective capacity between design practice and OMS. Next, I draw a line between preindustrial artisanal work, and research on *Artful Making* (Austin & Devin, 2003).

In *Artful Making* I see a line from the Pragmatists' debate about art to Austin and Devin's work on managing artfully, which describes a managerial perspective on these kinds of activities. (Austin and Devin do not articulate this link, however. It is based on my interpretation of their work, which I will unfold in the chapter.) By reaching back to preindustrial artisanal making processes, we can now establish a connection between artisanal work processes and a managerial perspective. Thus, the criticism of design thinking leads back to design practice and, further, to Pragmatism, and since I am interested in the management discourse related to the source behind design thinking grounded in preindustrial artistry, I finally turn to *Artful Making* (Austin & Devin, 2003).

In Chapter 5 I review the organizational scholar Karl Weick's contribution to design and management (Weick, 2004a, 2004b), because his work is capable of strengthening the connective capacity I found in Austin and Devin (2003). A further reason for inviting him into this work is both his engagement in the debate about the relation between design and management (2004a, 2004b), and is his focus on the internal organizational processes that are also the core

topic of the present study. He moves the work of Austin and Devin (2003) further into organizational life.

Finally, for an overview of the different concepts and their meanings, Chapters 3, 4 and 5 conclude by offering tables of concepts, meanings and sources. I conclude Part 2 by discussing the reviewed theories. Here I show that, first, across ontologies the literature agrees on the innovation imperative in today's hypercompetitive global business environment. Second, I suggest that another similarity is the theories' connection to the subject-object dichotomy, either as a direct reference or as an indirect allusion, whether they reject it or subscribe to it. The Concluding Discussion of Part 2 thus also suggests an answer to the sub-question I posed initially in order to develop an answer to the main question.

Chapter 2. Metatheoretical reflections

In their introduction to *Why Philosophy Matters for Organization Theory*, a special issue of the journal *Philosophy and Organization Theory,* Tsoukas and Chia (2011) underpin the importance of metatheoretical reflections in knowledge production. The two editors introduce the special issue by throwing a glance back in history to Aristotle and state that every historical epoch has its own particular idea of what it means to know. They mention several examples, including the modern conception of knowing grounded on analysing representations and causal relations between a phenomenon and people's reactions to it. In this understanding, the ability to generate 'proof' for how things could be identified and considered true is crucial: 'Theories came to be recognized as empirically verifiable and intellectually justifiable claims regarding the nature of reality' (ibid., p. 2), Tsoukas and Chia conclude.

However, towards the late modern epoch the 'enlightened' individual could no longer rely on one 'single authoritative representation of things'; instead, we now faced increasing and competing accounts of representations and perspectives on reality, and it thus became important to *interpret* information and stories about that reality, which could not simply be verified or falsified. One source of inspiration for this turn of the idea of knowledge generation was one of the American pragmatists, the philosopher William James, to whom Tsoukas and Chia refer in their introduction. Quoting James, they argue that '[o]ur concepts are secondary information 'inadequate and only ministerial … they falsify as well as omit'' (James, 1911/1996, p. 79)' (ibid., p. 3). In other words, our perception of our shared concepts of the world are mostly stable, while they should be seen as interpretations of that 'flux and flow' (ibid.) we perceive, and, importantly, they need to be recurrently reinterpreted.

For this purpose, following Tsoukas and Chia, the philosophical foundation of our knowledge needs to be questioned and exposed to reflections. Tsoukas and Chia conclude that '[p]rejudice and subjectivity are inevitable infused into our understanding and comprehension of life and, as Whitehead points out, it is precisely the task of philosophical inquiry to engage in the relentless self-correcting of our own initial "excess of subjectivity"' (Tsoukas & Chia, 2011, p. 6) – and,

furthermore, that 'true insight and understanding' can only be achieved by confronting and scrutinizing foreign perspectives instead of avoiding and omitting them. In an earlier piece, Chia (2003) relied even more closely on James's idea about concepts being secondary information. Drawing on language research, Chia digs deeper and points out that the instigation of the alphabet, some 3000 years ago, sowed the seeds of Western civilization's atomizing view of the world and its tendency to give preference to eye and gaze and to diminish the significance of the remaining senses. According to this view, the mindset represented by the Phoenician alphabet, which was adopted by the Greeks, has been further nurtured by our tendency to chop reality into bits and pieces, bracketing out reality in small units, which we clearly 'see' and in which we strongly believe. Chia formulates this point as follows:

(…) the shift from oral to literal alphabetic culture did more than change patterns of art, politics, and commerce. It facilitated a profound shift in human consciousness, bringing about the linear, abstract form of Western logic that we take for granted today. "This ABCD mindedness" brought about by the introduction of the alphabet creates a kind of chirographic bias that subtly ranks sight above sound and the eye above the ear' (Chia, 2003, pp. 100–101)

Following Chia, thanks to this 'chirographic bias', our tendency to chop reality up into bits and pieces and favour linear logic has defined and reduced our worldview.

Uncovering foreign points of view and different ontologies in the theoretical framework encouraged me to inquire into metatheoretical foundation of the reviewed literature in order to achieve a better theoretical basis for the project and to establish communication channels (Alvesson & Sköldberg, 2009; Johansson & Woodilla, 2008b, 2011) between the concepts' underlying philosophical bases in order to increase research solidity. Hence, before delving into the literature reviews, I initially outline discussions in organization and management studies about metatheory and scientific paradigms in order to clarify what the paradigmatic challenges mean. I conclude Part 2 by discussing the relationship between the project's three fields of research at a metatheoretical level in order to establish a coherent theoretical framework for the present research project.

2.1. Debating paradigms in organization studies

In organization studies, paradigmatic incommensurability has been subject to recurring debates over the ever years since the American philosopher Thomas Kuhn published his 1962 work *The Structure of Scientific Revolution on Scientific Paradigms,* upon which Burrell and Morgan built their analytical treatise *Sociological Paradigms and Organizational Analysis* (1979). Debates about paradigms was, for instance, a topic in 1988 in a special issue of *Organization Studies* and, again, 11 years later in *Academy of Management Review*, 1999, and has also been discussed more recently (Westwood & Clegg, 2003, p. 24). Expressions such as 'battle of paradigms' (Aldrich, 1988) or 'paradigm wars' (Weick, 1999) were used to refer to debates that revolved around scientists' ability to understand each other and reciprocally acknowledge each other's research. Part of the critique goes back to Kuhn's conceptualization of 'a paradigm', which was said to be 'flawed', because 'the notion was loosely and variously defined' (Westwood & Clegg, 2003, p. 24).

Moreover, Kuhn himself repeatedly revised his work and has stated that the paradigms were developed having the natural sciences in mind. Moreover, he later replaced the notion of a 'paradigm' with that of 'disciplinary matrix'. Westwood and Clegg state that: '(…) incommensurability is a function of tacitness and of variable values, which lead scientists to have different world views and perceptions of problems' (ibid.).

While Johansson and Woodilla (2008, 2011), applying Burrell's and Morgan's (1979) paradigmatic analysis on the relationship between the two fields of 'design' and 'design management', see their contribution as an enlightening means of scrutinizing the relationship between design and management, critical voices within organizational studies are less enthusiastic about Burrell's and Morgan's work. To Holt and Sandberg (2011), who look at the organization from a phenomenological perspective, the subject-object dichotomy is a construction; this view implies that we cannot speak about the organization as something distinct from ourselves. Holt and Sandberg refer to Moran's perspective on the contribution of phenomenology to contemporary philosophy and, I will add, to organization and innovation.

'Indeed, the whole point of phenomenology is that we cannot spilt off the subjective domain from the domain of the world as scientific naturalism has done. Subjectivity must be understood as

inextricably involved in the process of constituting objectivity … there is only objectivity-for-subjectivity. Phenomenology's conception of objectivity-for-subjectivity is arguably its major contribution to contemporary philosophy' (Moran, 2000a, p. 15)' (Holt & Sandberg, 2011, p. 238).

Postmodernism has made its entry with new ways of conducting organizational research and brought in critical approaches to organizational studies (Alvesson & Deetz, 1996). Hence, the question is whether it still makes sense to claim references to the paradigm concept of the 1960s? This is discussed by Hassard and Cox (2013), who propose a 'third-order' development in organizational theory, which 'can be classified as ontologically relativist, epistemologically relationist and methodologically reflexive' (ibid., 1717). Holt and Sandberg (2011), on the other hand, are more distanced in their account of the of phenomenology to organization studies. They argue that Burrell and Morgan established a dichotomy between subjectivity and objectivity, which has resulted in what they see as favouring the objective approach to reality and research.

'As Willmott (1993, p. 682) laments, in Burrell and Morgan's paradigm map "philosophies of social science are either irremediably 'subjectivist' or 'objectivist' in orientation. Studies of organization must therefore analyze organizational phenomena either as "a hard external reality" or appreciate the "importance of the subjective experience of individuals in the creation of the world"' (Burrell & Morgan, 1979, p. 3)' (Holt & Sandberg, 2011, p. 237).

The authors state that Burrell's and Morgan's paradigm matrix 'encourages status quo and performs political functions', because as research claiming an objectivist stance can carry on unquestioned by competing paradigms and uphold a privileged status as 'objective' research while studies conducted in the interpretive paradigm 'continue to be marginalized as less worthy than the objectivists within the scientific pecking order' (Holt & Sandberg, 2011, p. 238).

Despite the criticism of the preservation of the subject-object dichotomy, a paradigmatic inquiry might play a role in the concrete research conduction. Alvesson and Sköldberg (2009), for example, suggest that researchers facing paradigmatic challenges or incommensurability should 'uphold meta-methodological ideals which imply that the researcher's own position is not totalized' (Alvesson & Sköldberg, 2009, p. 308). They recommend interpretations on a meta-methodological level in order to increase what they call 'fundamental receptiveness to critical dialogue between positions' (ibid.). That should make it possible to 'avoid a complete'

incommensurability because the metatheoretical level contributes to the construction of communication channels between paradigms.

2.2. Reflections on ontology and epistemology

Reflections on ontology and epistemology have been a substantial part of organization and management studies since the 1990s as an outcome of Critical Theory, Postmodernism and the fall of the great modernist narratives as for instance '(…) of progress and truth' as

'key ideational imperatives of modernity (Gergen and Thatchenkery, 1998). For, if reason and observation were to work in harmony, and language gave us transparent and unmediated access to an objective reality, it would be possible to objectively validate and assess the status of any truth claims' (Chia, 2003, p. 105).[11]

Contributors within organizational studies tend to remind the field on a regular basis that it has been through 'wars of paradigms' (Weick, 1999b), and that the great narratives are dead. Such a reminder can be found, for example, in Czarniawska's introduction to her *Theory of Organizing* (2008, 2014). In the first edition, she draws a line from Wilhelm Dilthey (1833–1911), 'a symbol of the humanities' resistance to the imperialism of the natural science' (Czarniawska, 2008, p. 1) to what she acknowledges as Berger's and Luckmann's influential work on *Social Construction of Reality* (1966).

According to Dilthey, she states, natural science should keep out of the domain of the humanities and social science – all (history, culture and society) that is constructed. She argues that already the philosopher George Berkeley (1685–1753) found that 'reality and human knowledge about it are, in fact, the same thing, as it is impossible to prove that anything exists independently of human knowledge about it' (Czarniawska, 2008, p. 4). Another example of this debate in organization studies is Kelemen and Hassard (2003), who find paradigm plurality in a variety of disciplines and suggest a postmodern approach to paradigm plurality, arguing for the importance of multi-paradigmatic theories. In line with Czarniawska, their rationale behind exploring scientific paradigms is that the positivist epistemology, as they see it, is not fully able to explain what goes

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[11] See also *Debating Organization* (Westwood & Clegg, 2003) or *Handbook of Organization Studies* (Clegg, Hardy & Nord, 1996) or *Critical Theory and Postmodernism Approaches to Organization Studies* (Alvesson & Deetz, 1996).

on in organizational life. Thus, further in line with Holt and Sandberg, they (2011) point to the objectivists' dichotomy between subject and object, although, contrary to Holt and Sandberg, they still argue for research within the framework of paradigms.

While Kelemen and Hassard (2003) thus suggest broadening the specific research approach to a paradigmatic plurality, John Law (2004), like Holt and Sandberg (2011), adopts a more sceptical position, albeit from a different critical perspective. To Law, Kuhn 'drove a coach and horses through the empiricists and positivists vision of science' (Law, 2004, p. 43) and thereby demonstrated that scientists approach their work with 'a whole package which he calls a paradigm' (ibid). Moreover, Law, following Kuhn, argues that scientists can be characterized as puzzle solvers, meaning that they are trained to see the environment within certain paradigmatic patterns and can only add to that paradigm or 'find' gaps or holes in the greater puzzle. Furthermore, paradigms seldom fail; instead, 'most scientists are engaged in the creative and mundane process, puzzle solving' and '[p]aradigms are tools for handling out-thereness. But they also partly enact that out-thereness' (ibid.); in other words, to Law, researchers tend to reproduce the concepts and stories of the paradigm within which they operate.

2.3. Reflexivity and research

Philosophical and sociological insights conducted in the 1960s and 1970s have indicated a path and communication channels for organization and management studies to postmodernism that reject 'any metaphysics of presence in which a knowing consciousness guarantees the meaning of any experience, utterance or text. Postmodernism is a reaction against the presumed certainties delivered by reason (the promises of modernism) and by the grand, totalizing narratives through which they were represented' (Westwood & Clegg, 2003, p. 8). Moreover, postmodernism 'problematizes philosophy and all matters of ontology and epistemology (…) and suggests that modernity, initiated by the Enlightenment project of progressive development through rationalism have come to an end (…)' (ibid).

Alvesson and Sköldberg (2009) offer some examples of the lack of communication channels between theory and metatheory. For instance, methods such as grounded theory (Glaser and

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Strauss, 1967) and ethnomethodology (for example, Garfinkel, 1988) can be seen as attempts 'to imitate the technical approach, rigour and codification of quantitative methodology' (Alvesson & Sköldberg, 2009, p. 88). Instead, as an alternative way of conducting qualitative research, Alvesson and Sköldberg point to reflexivity, where the researcher 'allows the empirical material to inspire, develop and reshape theoretical ideas' (ibid., p. 273). Furthermore, they argue that organization studies should be carried out dialectally between what they term 'D-reflexivity' and 'R-reflexivity'. The former is deconstructive, defensive and destabilizing, while the latter is characterized by reconstruction and representation. R-reflexivity means '(…) bringing in issues of alternative paradigms, root metaphors, perspectives, vocabularies, lines of interpretation, political values and representations; re-balancing and reframing voices in order to interrogate and vary data in a more fundamental way' (Alvesson & Sköldberg, 2009, p. 313).

From their perspective, the reflexive researcher should engage in a practice that moves 'between tearing down – pointing at the weaknesses in the text and disarming truth claims – and then developing something new or different, where the anxieties or offering positive knowledge do not hold the researcher back' (ibid.). Tsoukas and Chia, arguing for the value of philosophy in the study of organizations, support Alvesson and Sköldberg's point:

'The philosophy of OT [organization theory] (…) deals with the study of the conceptual problems in OT. To be concerned with the elucidation of key concepts commonly used in the practice of OT as a scientific discipline is to bring a philosophical orientation to the study of those concepts and move the discussion to the meta-level, to interrogate the very framework within which OT questions are explored' (Tsoukas & Chia, 2011).

In other words, philosophical and metatheoretical reflections challenge the framework of the research project, which we should welcome as a natural part of a research inquiry.

Concluding remarks

In order to be able to weave together a coherent theoretical framework and thus answer the research sub-question, I took my point of departure in Tsoukas and Chia's (2011) reflections on the importance of philosophy in knowledge production. They go on to criticize the Modern idea of knowledge production as grounded in analysis that could be empirically verified and considered

true. I also addressed the debates about paradigms in organization and management studies, which have only recently been considered in studies of design management and design thinking in the management discourse (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2008b, 2011). Despite the criticism of Burrell and Morgan's (1979) paradigmatic matrix as confirming the subject-object dichotomy (Holt & Sandberg, 2011), I still find it important to address this work in the context of the present study, because it is capable of shedding light on the discrepancies between reflexivity within organization and management studies and design thinking in the management discourse. Moreover, the involvement of metatheoretical perspectives in this part of the dissertation is also a response to Johansson and Woodilla's (2008, 2011) claim that communication channels are needed in cross-disciplinary research such as design management and design thinking in the management discourse. The metatheoretical framework constituted by Chapter 2 and the Concluding discussion of Part 2 is thus an attempt to create such communication channels.

Chapter 3. The managerial aspects of innovation

Innovation management is a comprehensive research field, and hence only the part that I deemed relevant for the present study has been included in the following review: a definition of innovation based on etymology and on literature reviews, and the literature's view of disruptive activities and internal resistance. I conclude the chapter by outlining the involved concepts in *Table 1: Overview of concepts of innovation, meanings and sources.*

3.1. Defining innovation

Before delving into the literature on the managerial aspects of innovation, I will first take a short detour to the etymological definition of the word 'innovation', because it plays such a dominant role in the dissertation. I further find this etymological study relevant in order to address the etymological considerations in the literature that I draw on in Chapters 5 and 6 (Karl Weick on managing as designing and the chapter on methodology). Karl Weick, for instance, has a particularly keen grasp of words and narratives in organization and management studies, a perspective that is also embraced by, among others, Tsoukas (2005) and Chia (2003). Also, as it will appear, I criticize Weick's use of the word 'design'.

The noun 'innovation' and the verb 'to innovate' can be traced back to 1548.[12] The word has a Latin origin, *innovare*, and the verb 'to innovate' means (to move) 'into the new' or 'to renew', while 'innovation' as a noun is a result of a process that has been stopped or is temporarily frozen. From an etymological perspective, the verb indicates a change or transcendence from something we know into something new or slightly different from the point of origin. To innovate signifies a movement in an unknown direction, an action within an unknown time span.

As a field of study, innovation management derives from the area of economy and engineering, which became the dominating branch of research within innovation management studies and practice. The field has grown increasingly since the Second World War (Hobday, Boddington, & Grantham, 2011), and academically, it encompasses 'dozens of scholarly journals' (Hobday et al.,

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2011, p. 7). Due to its cross-disciplinary nature, and because there is no such thing as a unified theory of innovation and innovation management (Dodgson, Cann, & Phillips, 2014), scholars from a broad variety of fields contribute to innovation and innovation management research.

In the following, I review the literature on traditional innovation management and on organizational entrepreneurship, the latter with the purpose of presenting an alternative, which shares my position in OMS.

From a research point of view, innovation can be defined very simply as 'the process of creating value from ideas' (Tidd & Bessant, 2014, p. 3) or as 'an outcome and a process, a fact and an act' (Dodgson, Gann, & Phillips, 2014, p. 5). The construction of world standard time can serve as an example of this outcome and process. A lengthy process preceded the final result, the agreement instituting on 24 time zones across the globe to replace the many different time zones in each country, which was a challenge especially for railways and other transportation systems. From a local and contemporary perspective, FintechOrg's services evolve through processes that unfold between employees, managers and clients and turn out to create value both for the banks and for the end customers.

At the level of the individual business, innovation can be seen as 'a product, process, or service new to the firm – and not just new to the marketplace' (Hobday et al., 2011, p. 6). In addition, Hobday et al. stress that the new should be seen both as innovation activities within the firm itself and its innovation activities directed towards the market. They add that this definition also encompasses 'the stream of minor innovations that follow from radical new products and processes', noting that product and organizational innovation often 'go hand in hand', and that the definition also includes 'innovation of organization, business strategy and government policy' (Hobday et al., 2011, p. 7).

Innovation can also be something new to the world or to a firm; it can be about extending a product line or improving or repositioning products. Successful innovation does not depend on whether the new is radical or incremental, but rather on the 'new value it delivers to the

customers' (Ahmed & Shepherd, 2010, p. 6). This points to the idea that we can differentiate between incremental versus radical innovation. To illustrate how the two terms differ, Tidd and Bessant (2014) distinguish between incremental innovation, which they term 'doing better', and radical innovation, which they describe as 'doing differently'; they exemplify this distinction by referring to 'improved retailing logistics' versus 'online shopping' (Tidd & Bessant, 2014, p. 26).

In line with Tidd & Bessant (2010), Salter and Alexy (2014) state that innovation mainly consists of evolutionary and incremental adaptions of existing elements, while radical innovation or radical changes are rare. Following Ahmed & Shepherd's definition of innovation, I would say that the world standard time was realized through 'a value-adding process' making trading, communication and transportation easier and that it led to 'an outcome' (Ahmed & Shepherd, 2010, p. 5) – in the first place by making a variety of societal events and value exchanges far more efficient, such as interest rates, salaries, contracts, meetings and the coordination of train departures and arrivals. Furthermore, the process created a specific organization, which over the years has developed into The International Earth Rotation and Reference Systems Service.[13] In contemporary banking industry, we can register the efficiency in the use of harmonized time in, for example, 'express transfers,'[14] which is real-time transfers of money from one account to another within a few nanoseconds.

As time went on, the establishment of coordinated standard time transformed citizens' daily experience of time chaos into harmonized standard time as a given fact. This is not to say, however, that the new standardized time in general was a positive phenomenon for citizens in the late 19th century. The relationship between time and work took a new direction, and cultural life in general was impacted, too (Kern, 2003).

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[13] The organization's 'primary objectives (…) are to serve the astronomical, geodetic and geophysical communities' by providing (in part) '[g]eophysical data to interpret time/space variations in (…) earth orientation parameters, and model such variations.' More about the IERS: https://www.iers.org/IERS/EN/Home/home_node.html (Retrieved June, 2018)

[14] See Danmarks Nationalbank's Monetary Review, 3rd quarter, 2014, for more information about express money transfers (Andresen & Jensen, 2014).

3.1.1. Organizational entrepreneurship and innovation

Yet another way of defining innovation is with reference to the field of organizational entrepreneurship, which I find I obvious to involve, since I have based the study on the critical and reflexive approach to organization and management studies (OMS). Hjorth (2012b), for example, argues that innovation equals an invention or an idea plus entrepreneurship, which he, referring to Gartner (2012), considers to be defined as organization creation. This means that the phenomenon of organization achieves a new meaning, as I will elaborate in the concluding discussion. In this context the emphasis is put on the *process* of organizing the novel, and that we will not see any kind of innovation without employees or individuals organizing around the concrete invention or idea in order to bring it to life, to production, to use and, later, to market. This perspective differs from that of the traditional innovation management literature, which has an overly managerial approach to innovation. Furthermore it tends to point out single individuals as *the* creators, as, for instance, Ahmed & Shepherd (2010) did in exemplifying different (often white male) people as *the creative innovators* over time, for instance Guglielmo Marconi, who, in their understanding, developed the wireless telegraph in 1895 (Ahmed & Shepherd, 2010).

While much literature on innovation management describes the challenges to 'manage' innovation today (Ahmed & Shepherd, 2010; Biedenbach & Söderholm, 2008; McGrath & Kim, 2014; Prahalad, 2004; Sandström, 2010), organizational entrepreneurship is occupied by 'letting go' of the tendency to control the organization. Following Hjorth (2012b), managing and controlling organizational entrepreneurship is secondary to organizational creativity, which needs to move to the forefront to realize organizations' innovation potential. He argues that organizational entrepreneurship is organization creation,[15] an achievement and an active response to the new, a preparation for the new in a way where 'the value of the new is inseparable from the new practices needed for appreciating this value' (ibid., p. 7). This means that even if a new invention or idea is absolutely brilliant, without new practices enacted by, for example, employees and customers, there will be no value, and we will see no innovation.

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[15] Hjorth refers to Gartner, 2012.

As an example from FintechOrg's industry, the increasing digitization of banking services is innovation for those who contribute to organizing around the new service. Older people, however, are often not that familiar with online banking services, and hence, that customer group behaves in a way that counteracts the intended innovation, essentially showing resistance to this form of banking. Moreover, organizational entrepreneurship is about finding a way to make sure that the new happens, and to that it has to prevail over reactive forces inside the organization. Hjorth (2012b) states that Taylor's *Principles of Scientific Management (1911)* has been influencing our way of thinking about organization and management for too long, and that it is time for a new perspective due to the changes in societies worldwide that have moved the world into 'the post-industrial multiple becoming' (ibid.), 2) or as he puts it '[t]he most important problem in postindustrial organization is how potential for innovation can be facilitated and nurtured (Austin & Devin, 2003; Hjorth, 2003a)' it is 'not a primarily problem of managerial control' (Hjorth, 2012b, p. 7).

Signs of these changes can be observed in the breakdown of traditional companies, such as General Motors or Lehman Brothers, and in the 'visions of Google, Facebook and Twitter entrepreneurs' (ibid., 1), as he puts it. Moreover, Hjorth (2012b) points to philosophy and humanities as areas where signals of societal changes are revealed. According to him, the relationship between the part and the whole turns out to be increasingly important in the postindustrial society. 'This relationship (…) has become more central – I will argue – in the postindustrial economy, as the primary challenge and opportunity for facilitating processes of collective creativity and innovation' (Hjorth, 2012b, p. 4).[16] To exemplify the relationship between part and whole he mentions the mobile phone. As a new product, it simultaneously changed

'our relationship to phoning, but also to other people, practices and to everyday life as a whole. The part (the phone) meant new relationship to other parts (home, work, family …) which changes the whole – how to communicate, relate, work, live' (ibid.).

One could add that the development has moved even further, now that many banking services can be accessed from mobile devices, which are also services offered by FintechOrg. Additionally, referring back to the homogenized standard time as an example, this can be seen as an invention

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[16] Hjorth refers to O'Donnell and Austin, 2008; Lindenberg and Foss, 2011.

that changed the whole. For example, the new time system made it possible to invent measuring devices for monitoring the efficiency of factory workers. (The standardized time changed the relationship between people and hence the organizations and their ways of organizing.) In 1883, Taylor began to observe the workers' production within a time frame measured by a stop watch, and published his findings in 1911. Kern (2003) gives some examples of the new use of 'Scientific Management', which also entered the sphere of households during that period. For example, a proponent of the new management tool stated that with the 'cronocyclegraphy', 'we can now for the first time record the time and path of individual motions to the thousandth of a minute' (Kern, 2003, p. 116).

The idea of identifying certain individual moves within a certain measured time is reflected upon by Hassard (2002) too, albeit from a different perspective. In a paper on the commodification of time, the social construction of time and the compression of time and space, he describes Taylorism as a 'highpoint in separating labour from the varied rhythms experienced in craft or agricultural work: clock rhythms replace fluctuating rhythms; machine-pacing replaces self-pacing; labour serves technology' (Hassard, 2002, p. 887). This topic engages Hjorth too: 'Individual judgment and worker agency was replaced by a system of technologies of control, standards, mechanism through which management was to become 'scientific' (...) Scientific quickly meant efficient because it is predictable and thus controllable' (Hjorth, 2012b, p. 6). Furthermore, the author states that the work of Taylor and of Elton Mayor – one of Taylor's followers – led to a control relationship between manager and worker, and as control became moved from manager to the machine and the pace of the machine. 'Time was thus economized, and normalization of work, rather than supervision, was made into the control-mechanism that was supposed to secure productivity' (Hjorth, 2012b, pp. 5–6).

The invention of scientific management simultaneously removed the workers' rules of thumb that they had traditionally relied on. Even today, this control mechanism still impacts the managerial understanding of organization, management and innovation. At the same time, we face a postindustrial development, as postindustrial businesses and ways of organizing products and services gradually replace the industrial way of understanding and practicing business and

management. This means that there is a need to let go of control in order to be better prepared for the 'postindustrial multiple becomings' (Hjorth, 2012b, p. 2). Salter and Alexy (2014) touch upon the question of the control of innovation too, stating that today's firms will seldom be able to control their own innovation fate and potential; instead, this depends largely on their ability to draw 'upon resources, knowledge and skills from others' (Salter & Alexy, 2014, p. 44).

3.2. Disrupting activities

For innovation management as an applied field Dodgson et al. (2014) outline five 'interrelated recurring and enduring challenges: 1) dealing with disruption; 2) balancing portfolios; 3) integrating organizationally, technologically, and commercially; 4) building advantage in intangible assets and activities; and 5) encouraging creativity and playfulness' (Dodgson, Cann, et al., 2014, p. 14). The authors argue that innovation management as an applied field shows an enormous amount of literature on the topic, which naturally compels writers to choose among the many approaches. In the following, I have chosen the disruption literature in order to reflect the employees', managers' and executives' registrations of what went on in the field theoretically, and hence leave out the other four perspectives proposed by Dodgson et al. (2014). The focus on disruption at FintechOrg called for actions aimed at handling the imagined threats that motivated putting innovation on the agenda and which also constituted the motivation behind the research project, as accounted for in the introduction.

Movements in a market that gradually undermine and, in the worst case, eliminate incumbents are today termed disruption. Etymologically, the word 'disruption' originates from the Latin '*disrumpĕre*', meaning 'to burst or break asunder', and can be dated back to 1646.[17] In a contemporary business context it refers to the destruction of the market of businesses and hence their basis for generating income, for offering jobs and so forth. As mentioned in the introduction, Marx and Engels described the development of new companies in the emerging capitalistic society as destructive activities without, though, using the term disruption, or as 'creative destruction', a term formulated by the Austrian-American economist Joseph Schumpeter (1943). Schumpeter viewed the phenomenon as a natural activity within the national economy, where

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[17] See OED: https://www-oed-com.esc-web.lib.cbs.dk:8443/view/Entry/55344?redirectedFrom=disruption#eid

old companies are destroyed and new ones emerged through entrepreneurship and market competition.

In the 1990s, around 50 years after Schumpeter's work, Clayton Christensen (1995, 2000) revitalized the concept of destructive activities in market places. He describes how incumbents are forced out of the market due to new technological innovations that the incumbents' management teams did not react upon in time. He argues that from their perspective, the market entrants serve low-end customers with new technologies, while the well-established incumbents target high-end customers, which in turn increases their profit. At a certain point, however, the incumbents' customers switch to the entrants' products or services, thus gradually destroying the incumbents' markets (Christensen, 2000; Christensen & Rosenbloom, 1995).

In another publication he and Bower point to the problem that managers 'keep doing what has worked in the past: serving the rapidly growing needs of their current customers' (Bower & Christensen, 1995, p. 47), because they do not 'allocate resources among proposed investments [and are thus] *incapable* of funneling resources into programs that current customers explicitly don't want and whose profit margins seem unattractive' (ibid.). Also, according to the authors, decisions about developing new technological products or services are closely linked to enterprises' investment routines, which involve the use of 'analytical planning and budgeting systems to select from among the candidates competing for funds' ibid.). From a managerial perspective, choosing among competing ideas and products from the different organizational units is challenging, both because estimating the value of new markets is difficult, and, since managers are assessed on their ability to generate profit to shareholders, it is a natural consequence that they focus on beneficial and secure markets. The latter implies that they will tend to stay close to their lead customers, fulfilling their requirements, thus reducing risk and safeguarding their careers.

Yet, disruption does not come solely from new companies entering a market. Cultural and political changes too may disrupt firms or change their market (Salter & Alexy, 2014). For instance, related to the world of FintechOrg, the European Union's new banking regulations (Revised Payment

Service Directive (PSD2)) are forcing banks in Europe to give third parties access to their customers' bank accounts if they want it, in exchange for better or new services. The purpose of the directive is to enhance competition within the European financial market and thus simultaneously undermines the banks' market.

One thing is what happens in the specific businesses' market, another thing is who bears the responsibility for the disruptive events and, of course, whether they can be prevented. According to Sull (1999) the firms' management teams are, to a large extent, the ones that bear the responsibility. For instance, he looks at managerial reactions to disruptive signs in the market and identifies their behaviour as 'active inertia.' He argues that although they may register new and potentially threatening technology, incumbents do what they have always done, just even better, and hence fail to act on the new business conditions in time (Sull, 1999). They appear to believe that customers are loyal, and that their own current products, in particular, are unique and possess a high quality that meets customers' needs. Somewhat in line with this, Henderson argues, with reference to Adner (2002), that incumbents fail because old routines and competences prevent them from sensing and acting on changes in consumer demands combined with technological progression – they fail to respond to disruptive innovations because they lack market-related competences (Henderson, 2006).

What may seem puzzling is the literature's points about incumbents' top management closing the eyes to the new players entering the market, which later attack and disrupt the incumbents' businesses; a point that relates to the call for new managerial competences (Biedenbach & Söderholm, 2008; Hjorth, 2012b; McGrath & Kim, 2014). Viewed from a societal macro-level, disruption and innovation tend to go hand in hand, and hence, what is innovation for some companies might turn out to be disruption for others. Additionally, the span of years in which certain markets exist has gradually shortened. Ahmed and Shepherd (2010) point out that, for instance, in 1715, industries for water power and textile emerged, which lasted for 130 years. What the authors term Schumpeterian waves are characterized by the emergence and fading away of industries. In this perspective, the Schumpeterian wave of steam and railways, which followed the water power and textile industry wave, lasted 75 years, while the third (electricity

and chemicals, among others) lasted 50 years, the fourth (for example, electronics and aviation) lasted 40 years, the fifth (digital networks, biotechnology, software and nanotechnology) will last until 2020 (30 years), and then a new wave is expected to take over (Ahmed & Shepherd, 2010, p. 22). Ahmed and Shepherd (2010) do not, however, mention the establishment of the new world standard time, which emerged during what they call the second Schumpeterian wave, although it played a huge role in speeding up change and innovation.

According to Kern (2003), the appearance of simultaneity gave birth to the experience of the concept of time and space, which became the foundation of a vast amount of newness and a fundamental change of Western societies. From this perspective, there is also another side of the coin, which he, among others, finds articulated in cultural production. According to Kern (2003), time, space and speed were not concepts we would find in literature and art until the time of the industrial revolution and the instigation of world standard time. Hence, one could add that as early as the 1850s the complexity of the business environment became a challenge to managers, businesses and citizens.

3.3. Hypercompetitive activities – post-industrial multiple becomings

Today's rapidly evolving business environment is also characterized as *hypercompetition* – a term coined by Richard D'Aveni (1995), who argues that management needs to understand both the dynamics and the fluidity of the global market compared with its technological breakthroughs (D'Aveni, 1995). In addition, since no organization can maintain a sustained competitive advantage, there is a need for a fundamental shift in how we understand and cope with these inevitable and recurring changes, which, as mentioned earlier, Hjorth (2012b) also argues from an organizational entrepreneurship perspective:

'We're becoming postindustrial, but more importantly, this is a postindustrial becoming. What style of thinking is then interrupted and gradually coming to an end? Various versions of answers to this question are of course found in the board rooms of GM, in the memories of Lehman Brothers, in the visions of Google, Facebook and Twitter entrepreneurs. (…)' (Hjorth, 2012b, p. 1).

In response to this, Biedenbach and Söderholm (2008) suggest that firms need to develop 'two somewhat conflicting capabilities – flexibility and controllability simultaneously'. They argue that

successful players in competitive environments constantly disrupt themselves by continuously developing new competences obsoleting the existing, and that the winners of hypercompetition accelerate the competition through speed and a high frequency of disruptive actions (Biedenbach & Söderholm, 2008, pp. 125–126).

Biedenbach & Söderholm (2008) refer to Wiggins and Ruefli (2005), who studied 40 industries concluding that 'periods of sustained competitive advantage have been in fact growing shorter over time, thus providing direct support for hypercompetition' (ibid., p. 127) and supporting Ahmed and Shephard (2010) and the idea of the Schumpeterian waves. In line with this, McGrath and Kim (2014), too, state that the lifespan of incumbents has decreased tremendously since 1955, when firms generally existed more than 60 years, which in 2010 was reduced to 16–17 years. Furthermore, they criticize colleagues in strategic management for excluding innovation from their research agenda, suggesting that the field should have a more prominent place, particularly due to the phenomenon of hypercompetition (McGrath & Kim, 2014).

Also, referring to Nag et al. (2007), McGrath & Kim criticize strategic management scholars for being too focused on the general manager dealing with 'the major intended and emergent initiatives taken by general managers on behalf of owners, involving utilization of resources to enhance the performance of firms in their external environments' (McGrath & Kim, 2014, p. 398), leaving out, for example, process. They comment that managing innovation 'has a great deal to do with process and with social infrastructure within and between organizations' (ibid., 399). The authors also criticize Michael Porter for his famous 'five forces', because, as they see it, he assumed a relatively static business environment, which in their view has been undermined by hypercompetition.

Another trend in strategic management that McGrath and Kim criticize is empiricism, which has its origins in the wake of the Second World War, when the American industry enjoyed a certain competitive advantage due to the isolated Soviet Union and the fact that Indian and Chinese firms were still absent from the international industrial competition. During these post-war conditions, the idea of using quantitative analysis to enhance business performance emerged. This

development had, among others the consequence that quantitative analyses began to replace managerial decisions made on the basis of 'long experience or learning through observations of others' situations, there were [now] analytical techniques that could be applied, yielding hopefully superior and replicable solutions' (ibid., 402) – slightly similar to the workers' rules of thumb, which were replaced by scientific management, as stressed by Hjorth (2012b). Here, too, individual skills achieved through years of training became superseded by external and somewhat authoritative forces. Out of this new analytical tradition, consultancies emerged, for instance the Boston Consulting Group and McKinsey, which sold quantitative analyses about pricing, production decisions and operations for the support of managers' decisions.

McGrath and Kim (2014) point to this consultancy offer as "new Taylorism" in search of efficiencies. All of this reinforced the idea that firms could gain from competitive advantage through analysis' (ibid.). They sum up some of the historical assumptions of the strategy literature, such as industries' clear boundaries, that competitors are to be found within the same industry, and that resources belongs to the organizations. Now, these assumptions seem to collapse due to the so-called hypercompetitive age or, where, for example, banks' new competitors enter from other industries, e.g. the tech industry, as emphasized by FintechOrg's CEO in the introduction. McGrath and Kim consider today's business environment a 'transient advantage economy' where organizations are temporary, and capabilities are 'created by individuals and loose organizational affiliations' and might be coupled to firms 'semi-permanently' (ibid.). What D'Aveni in 1995 coined 'hypercompetition' could have been articulated by Hassard as the consequences of a collapse of 'time span.' Hassard refers to Harvey (1989) in arguing that

'we are forced to alter how we are presenting the world to ourselves, then '[s]pace appears to shrink to a "global village" of telecommunications and a "spaceship earth" of economic and ecological interdependencies … and as time horizons shorten to the point where the present is all there is … so we have to learn how to cope with an overwhelming sense of compression of our spatial and temporal worlds' (1989:240)' (Hassard, 2002, p. 890).

One of his other points is that postmodern information systems make it possible for organizations 'to work in real-time "on a planetary scale"' (ibid., p. 890), and referring to Castells (1996) who proposes that 'such electronic information generates a "timeless time", in which capital is free

from the clock in that, crucially, it is shaped by such new informational systems' (ibid.). Again, this can be illustrated through the express transfers of contemporary banking.

Biedenbach and Söderholm (2008) support the need for a new approach to managerial practices in order to diminish the risk of disruptive attacks from the market. One usual way of handling organizational change is through the so-called change management programmes. However, they state that change management studies reveal a failure rate 'at about 70 %', when change programmes are undertaken and conclude that we need to search for different ways of handling change, 'especially when it comes to industries where competition is extremely intense' (Biedenbach & Söderholm, 2008, p. 124). They see the capability to carry out constant changes as 'the major organizational skill required to address change of high frequency' and suggest making innovativeness a strategic core competence of the firm (ibid., 140). The point is that decision makers are advised to respond to the progressively and instantaneously complex world – and thus reduce Tayloristic managerial practices derived from industrialization and belonging to the modern world that the postindustrial multiple becomings are coercing us away from. The idea of making innovativeness the organization's core competence was also articulated in the CEO's desire that FintechOrg should be an organization capable of serving the clients and their aim to increase their businesses.

3.4. Resisting the new

Threats to the organization do not come exclusively from outside the organization in the form of competitors' activities, they may also develop from inside. Research into organizational entrepreneurship points out that new ideas often face challenges from within and may be rejected or ignored by internal actors. Hjorth, following Aldrich (1999), stresses that '[s]pace for creation cannot be achieved against management as this will only generate stronger opposition' pointing to the 'history of organizational entrepreneurship as incubation, after dark work, skunk-work' as the kind of organizational entrepreneurship that is realizable (Hjorth, 2012a, p. 11). These points on conservatism and management's reactive behaviour to repress the new is supported by Sandström (2010), who emphasizes the key role of conservatism in incumbents' networks and the lack of business model renewal as well as internal competition for the same

resources. In addition, since organizational changes often imply a dislocation of power, innovation creates resistance.

Referring to Clayton Christensen, Sandström argues that '[i]ncumbents appear to be held captive by their investors and their most important customers. Therefore, resources are not allocated to initiatives that are initially less profitable' (Sandström, 2010, p. 10). Moreover, Sandström remarks that Christensen also points to the circumstance that 'disruptive technologies present a particular challenge for incumbents since they require managerial skills that are different from the ones needed to succeed in sustaining battles' (ibid.). Hjorth, too, observes that organizational rejection of the new – be it within the organization, in which case we might see the creation of heterotopias as isolated spaces for play (Hjorth, 2005), or as cooptation (Hjorth, 2016) – becomes a response that demands a certain amount of creativity from managers in the name of resistance. According to Hjorth, management sometimes responds affirmatively to the new; however, managers also react negatively in order to secure effectivity. This reaction might be masked as agreement.

'Philip Selznick (1949) developed the concept of cooptation to understand such negation disguised as agreement. Understanding cooptation requires that we can analyse how forces and will makes resisting part of what it is to creatively manage for the purpose of securing control. Not simply as an act of stopping, but as a *creative* act (…) as separating active forces from what they can do' (Hjorth, 2016, p. 299).

Hjorth thus argues, that management has to resist the new through an increased degree of creativity in order to maintain their known business, and that 'co-optation' is activated because it would not be appropriate to reject entrepreneurial initiatives publicly. Another form of resistance can be articulated as 'dominant logic' (Bettis & Prahalad, 1995; Prahalad, 2004), meaning that over time, successful businesses' approaches to competition may be deeply rooted in the organization, to the extent that it becomes a logic that dominates the organization. The organizational members' perception of their business turns into a filter that strengthens their current behaviour and may limit employees' and managers' capacity to innovate or to identify threats in the market.

An example of a 'dominant logic' could be the idea of innovation as driven by technology, as suggested by Alexy & Dahlander (2014). According to them, the industrial revolution has

predominantly been seen as driven by technological development, for instance, the steam engine or the spinning jenny. However, they state, it was also a result of social, political and economic changes, as mentioned earlier. They point out that viewing the economic development of that time as based on technological determinism is too simple. Moreover, since then, innovation studies have been preoccupied with what could be measured, such as research and development surveys, patents or academic publications. They argue further that an excessive focus on scientific and technological knowledge has generated 'blind spots' and conclude that technological innovation does not have primacy over other forms of innovation. Many corporations have, for example, replaced research and development departments with open and distributed innovation models, for instance, open innovation and user-driven innovation, as described by Henry Chesbrough (2003) and Eric von Hippel (1976).

The idea of the organization as a closed and stable entity might block that type of innovation, which pertains, for instance, to collaborative innovation. Collaboration as a source of innovation is defined as 'the shared commitment of resources to the mutually agreed aims of a number of partners' (Dodgson, 2014, p. 462). Moreover, collaboration in an innovation context is used to develop new markets and to gain access to production and distribution networks. We can, however, only talk about collaboration if 'all contributors commit resources to it, and mutually determine its objectives' (ibid.).

Concluding remarks

The purpose of the chapter was to offer an understanding of innovation and its managerial aspects, as it is a key term in the question I asked initially. I reviewed literature across the relatively broad and comprehensive field of research. I first defined the concepts of innovation and disruption, which led me to additional concepts highlighted by researchers as describing phenomena that characterized the global market, including hypercompetition (Biedenbach & Söderholm, 2008; D'Aveni, 1995; McGrath & Kim, 2014) and post-industrial multiple becomings (Hjorth, 2012b). The overall message is that innovation is needed in today's global business environment, and that we risk falling victim to disruption if we fail to engage in innovation efforts or to offer new and relevant products to the markets.

According to the literature, this calls for new managerial competences, which are different from the ones we needed during the industrial age (Biedenbach & Söderholm, 2008; Hjorth, 2012b; McGrath & Kim, 2014). Now, it is one thing to acknowledge the need for new competences and quite another to determine how that might be accomplished in organizational life, since, when it comes to organizational innovation, the literature points to different versions of resistance within the organization that must be overcome. This highlights the relevance of my initial question: How can we understand the practices of organizing for innovation?

Table 1: Overview of concepts of innovation, meanings and sources

Innovation	Authors / sources
Into the new, to renew	Oxford English Dictionary
A process of creating value from ideas	Tidd & Bessant (2014), Hobday et al. (2011)
An outcome and a process, a fact and an act	Dodgson et al. (2014)
A product, process or service new to the firm and market place.	Hobday et al. (2011)
New value to customers	Ahmed & Shepard (2010)
Invention + entrepreneurship as organization creation; the value of the new inseparable from new practices = innovation is enacted; the relation between the part and the whole is increasingly important.	Hjorth (2012b) referring to Gartner (2012)
Radical innovation	
Doing better vs. doing different	Tidd & Bessant (2014)
Doing things distinct from administration and management.	Hjorth (2012b) referring to Schumpeter (1943)
Organization creation is needed for radical innovation	Hjorth (2012b)
Disruption	
Destructive activities	Marx & Engels (1848)
Creative destruction	Schumpeter (1943)
Disruptive innovation	Christensen (2000), Christensen & Rosenbloom (1995)
Management's reaction as 'active inertia' (might lead to disruption).	Sull (1999)
Hypercompetition	
Inevitable and recurring rapid changes in society and business environment.	D'Aveni (1995)
Post-industrial multiple becomings	Hjorth (2012)

Tremendously decreased lifespan of incumbents.	McGrath & Kim (2014)
'Present is all there is', an 'overwhelming sense of compression of spatial and temporal worlds', 'work in real time on a planetary scale', 'a timeless time'.	Hassard (2002)
High-frequency change	Biedenbach & Söderholm (2008)
Schumpeterian waves – span of incumbents' life has grown shorter since 1715	Ahmed & Shepherd (2010)
Resistance towards the new	
Managerial resistance leading to 'after dark work' or 'skunk-work', heterotopias (isolated spaces for play).	Hjorth (2005, 2012)
Conservatism in incumbents' network.	Henderson (2006), Sandström (2010)
Lack of business model renewal, internal competition for the same resources, dislocation of power.	Sandström (2010)
Managers' negation disguised as agreement seen as a special form of creativity & termed cooptation.	Hjorth (2013)
Dominant logic refers to managers' and employees' perception of organizations through a filter blocking innovation and preventing them from identifying outside threats.	Bettis & Pralahad (1999), Pralahad (2004)
Consequences for management	
Letting go of control in order to be prepared for multiple becomings. Move and let oneself be moved.	Hjorth (2012b), Hjorth & Gartner (2012)
To draw upon resources, skills and knowledge from others.	Salter & Alexy (2014)
A broad approach to innovation and a capability to handle complexity.	Ahmed & Shepherd (2010), Salter & Alexy (2014), Tidd & Bessant (2014)
Develop flexibility and controllability simultaneously; '… make innovativeness a strategic core competence of the firm'.	Biedenbach & Söderholm (2008)

Need to understand dynamics in the global market combined with technological breakthroughs.	D'Aveni (1995)
Acknowledge that the new does not spring solely from technology but also from cultural change, politics, arts and humanities.	Hjorth (2012b), Alexy & Dalander (2014)
Acknowledge collaborative innovation as a source of innovation.	Dodgson (2014)

Chapter 4. The managerial aspects of design

Before we can understand why design as a concept has been related to the management discourse expressed as design thinking, we first need to understand the concept itself. This means that just like the concept of 'innovation' I will, first, look at the word design etymologically, and, next, take the reader back in history and outline the concept's antecedents in order to explore if we can learn something from that connection. I do not intend to write a history of design, though, but only point at what I find necessary for, first, achieving a conceptual and foundational understanding of the concept and, second, understanding the relationship between design and management and, more specifically, the development of design thinking in the management discourse as a part of the theoretical framing for the project.

Critical researchers' perspective on design in the management discourse, specifically Johansson and Woodilla (2008, 2011), point to paradigmatic incommensurability between the literature on design practice and the literature on management. Besides the criticism of paradigmatic incommensurability, the concept of design thinking is furthermore criticized for excluding important qualities of design practice. The two critical approaches to design thinking require a brief review of the key Pragmatist concepts which design researches use to inform their theoretical understanding of design practice. With this move I obtain both a foundation for paradigmatic commensurability between design practice and, as I will show later, organization and management studies and a deeper understanding of the relationship between art and design. I find important similarities between preindustrial artisanal activities and design activities. Thus, the criticism of design thinking in the management discourse causes me to turn to the relationship between preindustrial artisanal work and the task of leadership in connection with production processes that is described and discussed in *Artful Making* (Austin and Devin, 2004). In my conclusion to Chapter 4 I summarize the literature reviews in order to decide what elements to build on from these reviews. Each section of the chapter, *1) Understanding the concepts of the design discourse, 2) From design management to design thinking in a management discourse, 3) Critical design management and design thinking research, 4) Classical pragmatists concepts related to design,* and *5) Managing artfully*, is furthermore concluded by a table of concepts.

4.1. Understanding the concepts of the design discourse

Design was identified as early as 1398 as a verb and in 1565 as a noun[18] – the verb thus predates the noun form. The Latin origin *designare* means 'to mark something out' or 'to plan'; thus, the meaning of the verb 'to design' could be said to contain inherently both an intent to reach a certain target and to arrive at a stop once that target has been reached. If you design a plan, you simultaneously want to achieve something and to mark out to which point the idea of that plan goes, where you define its borders to be hence simultaneously the area outside these borders. Finally, 'design' as a noun is a result of the design process that has been stopped or is temporarily frozen.

From an etymological perspective design, indicates a transcendence driven by a deliberate intention (aiming at marking out) and a subsequent action and hence, based on the inherent imagination of a given space and vision, an intrinsic illusion of the stop. It also marks an imagined end of a given time of production. Regarding 'design' as a verb, we also find a connotation of the word 'designing' as an adjective that has decidedly negative implications, for example, 'acts in a calculating or deceitful way; having some ulterior motive; scheming, crafty, artful'.[19] Design as a concept originated long before industrialization; however, there is no doubt that industrialization increased the use of the concepts due to the rapid industrial change that has been taking place ever since.

4.1.1. A brief historical look at the origin of the design concept

Design grew out of the old profession of the pre-industrial artisans who made a living from the skills they had acquired through years of training in a specific field – furniture, shoes, jewellery, gold- and silversmithing and so forth. The industrialization process in the Western societies gradually gave rise to a distinction between artisans – as they were called – and the new invention: art. Or, put differently, when art was invented, design emerged as an industrial phenomenon, and in consequence, the artisans were transformed into design 'workhorses' in the

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[18] Oxford English Dictionary (design: http://www.oed.com.esc-web.lib.cbs.dk/view/Entry/50841 and innovation: http://www.oed.com.esc-web.lib.cbs.dk/view/Entry/96311 (accessed April 2018)).
[19] http://www.oed.com/view/Entry/50858?rskey=a6Gx42&result=3#eid (accessed August 2018).

expanding industry (Heskett, 2002; Shiner, 2001). This development made room for a new creative profession to emerge, the arts. Artists grew in social status and became simultaneously highly individualized, although the boundaries between artist and artisan remained fluid for quite some time (Shiner, 2001). Moreover, the individuals we know as great artists today, for instance the Dutch painter Rembrandt van Rijn, still worked in guilds together with groups of artisans, who typically finalized a sketch by the main name of the guild (for example Rembrandt). They worked on commissions from wealthy citizens, and only later, in the middle of the 18th century, works of art (for example paintings) were traded and sold on the evolving art market, where buyers wanted a signature of the individual artist in order to know the background of the work of art piece, which the buyer had not commissioned and hence did not know (Shiner, 2001). As we will see in the final section of the chapter, Austin and Devin (2003) also engage in this preindustrial work of the artisans before the invention of art and argue that the iterative working processes, which we abandoned with the advance of industrialism, need to be re-introduced. Via the concept of artful making, Austin and Devin demonstrate that what we might call preindustrial designers – artisans – managed their businesses in a way that we might still learn from today.

4.1.2. The extended concept of design

Our understanding of the concept of design has evolved over the decades. Some have referred to the new understanding as 'the extended concept of design', which now includes both the artefact and the processes leading to design products and services. (Buchanan, 1992; Heskett, 2002). The extended concept of design implies, for example, that interactions and services are communicated as design and thus transcend visual and physical artefact. Herbert Simon's oft-quoted sentence, 'Everyone designs who devises courses of action aimed at changing existing situations into preferred ones' (Simon, 1969, p. 111) expresses this development. Simon distinguished between natural and artificial science, where the former is concerned with how things *are*, the latter is focused on how things *ought to be* in a given future.

Rittel and Webber introduced a perspective on design as an activity concerned with solving wicked problems (Rittel & Webber, 1973). They suggested that wicked problems can only be resolved through design methods and claimed that there exists no right corresponding solution

to a given problem, only a best solution among many possible. Richard Buchanan took up the idea of design methodology as an approach to wicked problems in general, calling for design competences to handle the (increasingly) wicked problems of today (Buchanan, 1992). Moreover, he articulated the concept of 'four orders of design', viewing design as a phenomenon within the respective genres of 1) visual communication (graphic design) over 2) physical artefacts (industrial design), 3) processes (interaction and service design) and 4) thoughts, which are converted into systems and approaches to problem solving and articulated as design thinking.

Buchanan (1992, 2001) also pointed to innovation in arguing for understanding design in a framework of four orders, because he saw the new happening in the intersection between the four orders. Add, for instance, processes (3rd order) to artefacts such as music tracks (inasmuch as music can be said to be an artefact), and you will innovate the consumption of music, which we know today as, for example, the online system iTunes provided by Apple. In the case of FintechOrg's services, digital processes were also added to our bank accounts.[20] In a somewhat similar vein, John Heskett viewed design as a general human ability – 'stripped to its essence, [design] can be defined as the human nature to shape and make our environment in ways without precedent in nature, to serve our needs and give meaning to our lives' (Heskett, 2002, p. 7). Heskett described the history of design as a process of layering, in which 'new developments are added over time to what already exists,' and described the layers as a 'dynamic interaction in which each new innovative stage changes the role, significance, and function of what survives' (ibid. p. 9-10). He regards design as a layered phenomenon, where new layers of design disciplines are gradually added without excluding the existing ones. The focus moves from objects at the centre of the figurative onion over layers consisting of communication, environment, identity, and, as the final exterior layers, system and context design; the latter explained as politics (Heskett, 2002).

Heskett (2002) arrives at this decidedly generic description of design in an effort to attribute meaning to a topic that to him could really be anything – from hair design to funeral design, as he

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[20] Today, these accounts too are, of course, digital. However, they are still cultural and imaginary carriers of the physical coins and notes.

puts it. Moreover, the challenges in seeking to understand the concept increase, because 'the word has so many 'levels of meaning', which in itself creates confusion. Moreover, the field has never developed into a 'unified profession' like for instance engineering, architecture or medicine' (ibid. p. 5–6), which increases the challenges involved in understanding the concept, because, as Hjelm asks, 'if everybody designs, who is then the professional designer?' (Hjelm, 2005, p. 1).

This 'anything' in Heskett's perspective becomes a topic without a 'special subject matter of its own' in Buchanan's perspective. Additionally, he sees design problems as indeterminate and, as a consequence, wicked. He comments that

'(…) the question lies in something rarely considered the peculiar nature of the subject matter of design. Design problems are "indeterminate" and "wicked" because design has no special subject matter of its own apart from what a designer conceives it to be. The subject matter of design is potentially universal in scope because design thinking may be applied to any area of human experience. But in the process of application, the designer must discover or invent a particular subject out of the problems and issues of specific circumstances' (Buchanan, 1992, p. 16).

Buchanan (1992) and Heskett (2002) seem to agree in understanding design as extending its boundaries away from the visible and physical artefacts towards the abstract version of design as systems and thoughts. Now, what Buchanan and Heskett and before them Simon (1969) identified as design and depicted as an expanding phenomenon embracing everything that humans have touched, is criticized by Kjetil Fallan:

'[t]he problem is that a definition that does not exclude anything is of little or no use. (…) If the only differential definition design can be given is against the natural world, there is a risk of emptying the term of any substantial meaning' (Fallan, 2010, p. xvi).

On design in a historical perspective, Fallan (2010), referring to Lynn Hunt (1989), argues for the benefits of focusing on, a *cultural history* of design instead of a design history, which will help design historians to 'see design as "any other cultural phenomenon" – that is not giving privilege to the artefacts, actors, institutions and structures studied' (ibid., p. 49). Moreover, he refers to Hunt in stating that cultural history should be concerned with open-mindedness towards what academic explorations will uncover, 'rather on elaboration of new master narratives' (ibid.). Focusing on the cultural history of design rather than design history, he stresses the importance

of studying design in line with other historical foci and thus insists that design is merely cultural products rather than something intrinsic in itself. With this perspective, he points to design as 'co-production of ideology and practice' (Fallan, 2010, p. 118) or cultural modes 'defined by negotiations between design ideology and design practice' (ibid., 149).

Fallan further states that cultural history research examines, Marxism, Michel Foucault's archaeology of knowledge, and other topics, 'but it does not propose a new grand theory' (ibid.), which could be read as a comment on the extended concept of design.

4.2. Design management and design thinking in management discourse

The relationship between design and management can be traced back to development in the United Kingdom, the United States or continental Europe as the particular field of 'Design Management'. The concept and its practice developed in the wake of the industrial revolution, leading to new ways of producing goods and commodities, of managing people, processes and materials (Cooper & Junginger, 2011). However, Cooper and Junginger state that design management only interested few management researchers through the 1960s – dealing with managing marketing, strategy and new product development. After the Second World War a renewed interest in design arose, presumably due to the need for new products during the 1950s (ibid.).

The relationship between design and management has practically been related to design processes and products (or services) within the companies focusing on managing and coordinating the different design disciplines (graphic design, industrial design and so forth) within organizations (Cooper, Junginger, & Lookwood, 2009; Svengren-Holm, 2011). Cooper, Junginger and Lockwood (2011) in their introductory chapter to *The Handbook of Design Management* (2011) draw a distinction between two 'overlapping strands of research and practice [within design management]'. The former regards design management, which, as mentioned above, is an activity focusing on the 'creation of products, places and communications which involves managing the process, the people, and promoting the role of design in the creation of physical contribution to organizations' strategic goal' (Cooper & Junginger, 2011, p. 27). The latter regards

a focus on 'creating an organizational capacity to adopt and use the design approach as part of an overall response to change and external challenges' (ibid.). This strand has according to Erichsen and Christensen (2013) transitioned into a new concept: design thinking.

Erichsen and Christensen (2013) look at how design management as a subject has developed based on its occurrence in journals, including the development of the design thinking concept in the design management discourse. They find that the concept arose in the 2000s and indirectly describe a shift in the literature, preoccupied with the connection between design and management from design management to design thinking. From their result they suggest that the field of design management is in a dual transition in part from focusing on 'cost and prices' in the early days to 'innovation and business development in the later years' and in part 'from managing product design to an integrated conceptualization of design management enveloped by the terms "design thinking" and "design and business models"' (Erichsen & Christensen, 2013, p. 119).

Erichsen and Christensen (2013) still see a field of design management, though, albeit disguised under the new term 'design thinking', and thus claim the equivalence of the two concepts.

'We find that future research might benefit from a stronger focus on and new views of the concepts of business and user. We also find that a stronger awareness of the evolving orders of design (Buchanan, 2001) from a dominant product focus to a focus on interaction and systems design might spur the agenda of design management' (ibid., p. 119).

Design thinking as a concept has been brought into the management discourse as a promising vehicle for organizational change and innovation by proponents arguing that thinking like designers is an organizational resource for managers aiming to make theirs an innovative organization (Brown, 2008, 2009; Brown & Martin, 2015; Cooper et al., 2009; Dunne & Martin, 2006; Glen et al., 2014; Kolko, 2015; Martin, 2009, 2011).

Moreover, design thinking addresses 'fundamental assumptions, values, norms, and beliefs that make an organization what it is' (Cooper et al., 2009, p. 48). The authors ask 'What if an organization was a product?' (ibid.). Kolko (2015) refers to design thinking as a 'set of principles', specifically empathy with users, a discipline of prototyping and tolerance for failure' which he

sees as 'the best tool we have for creating those kinds of interactions and developing a responsive, flexible organizational culture' (Kolko, 2015, p. 4).

One of the first scholars affiliated with a business school to make that claim and to publish on design thinking and business was Roger Martin, former dean at Rotman School of Management, University of Toronto. In his book *The Design of Business – Why Design Thinking is the Next Competitive Advantage (2009),*[21] he argues that firms need to balance the exploration of new knowledge (and ideas) and the exploitation of what they already know, which in his opinion only few companies do; those doing it he recognizes as design thinking businesses. These businesses, he claims, manage to balance 'analytical mastery and intuitive originality in a dynamic interplay that I call design thinking', (Martin, 2009, p. 6). He refers to people from the American design consultancy IDEO, Tim Brown and David Kelly, and the (former) president of the Rhode Island School of Design John Maeda as some of the sources of inspiration for the book along with the American pragmatists William James, John Dewey and Charles Sanders Peirce.

Here, according to Erichsen and Christensen (2013) and, later in this chapter, Johansson and Woodilla (2011, 2009, 2008), Martin's work is an example of the exploitation of design practice in a new context in traditional management theory. Martin finds that the way designers think when working and creating the new is a way of thinking that can be a source for managers to constantly innovate their firm – not only its products and services. The organization itself can be transformed into a design thinking organization. Martin exemplifies this (among several firms) through the former CEO A. G. Lafley's success with transforming the large American firm Procter and Gamble in the beginning of the 2000s to a well-functioning innovative organization showing a huge surplus after three years of new (design thinking) leadership. In other words, Martin uses the Procter and Gamble case as a success story that explains and promotes what managers in a business context can learn from designers' way of thinking, including intuition and abductive thinking.

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[21] Roger Martin has mainly published management books and articles in *Harvard Business Review* and has therefore not been peer-reviewed in academic journals.

In a broader perspective, Hasso and Laakso (2011) have done a larger literature review of the managerial aspects of design thinking seeking to define a framework for the concept in a management context. They review around 50 articles and books on the topic, a selection that 'summarizes the elements of design thinking, and suggests a three-dimensional framework explicating the management view of design thinking' as 'practices, cognitive approaches, and mindset' (Hassi & Laakso, 2011).[22] Furthermore, they add sets 'of elements of design thinking to each dimension – methods, values, and concepts that repeatedly surfaced across the reviewed literature.'[23] In their view, collaborative work style as a form of democratic leadership is seen as important in tackling wicked problems by drawing on knowledge from many fields and disciplines and merging them in a meaningful and novel way. Moreover, the ability to adopt a holistic view plays an important role – a 360-degree understanding of the business including issues, understanding costumers' needs, end users' environment, social factors and so forth.

Furthermore, design thinking is about bringing competing constraints into a harmonious balance, and achieving a natural balance between technical, business and human dimensions and so forth. (ibid.).

Also, design thinking is associated with enjoying problem-solving and finding opportunities in places, where other people have given up. Competing constraints are accepted willingly and even enthusiastically – seen as increasing challenge and excitement, creative confidence, non-hierarchical relationships and passion and trust. And importantly: design thinking can be described as future-oriented, as the ability to visualize and anticipate new scenarios. The logic in design thinking is 'what would be?' The starting point is often a stronger vision than the status quo, and energies guiding vision-driven processes include intuition and hypotheses about the future. The authors conclude that

'(…) the elements should not be considered as separate units, but rather as forming an entity that may be called design thinking. The approach of design thinking should be seen as *a bundle of*

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[22] The paper is published via ResearchGate without page numbers; however, the citation can be found on the fifth page. (See the url of the paper: https://www.researchgate.net/publication/274070930_Conceptions_of_Design_Thinking_in_the_Management_Discourse, accessed May 2018).
[23] ibid. Second last page.

certain elements that are interlinked and manifested through practices, thinking and mentality' (ibid. p. 10) [my italics].

4.3. Managing as designing

In line with Martin's statement about the usefulness of design thinking – designers' way of working – in a management context, the two professors within management and information systems Richard Boland and Fred Collopy organized a seminar on 'managing and designing' at Case Western Reserve University in Ohio in 2002. Having the same concerns about traditional managerial way of thinking and working as Martin (2009), in 2002 they brought together researchers, artists and managers in order to discuss conditions for management and new ways of leading in the 21st century.

The contributions at the seminar at Case Western were published in the anthology *Managing as Designing* in 2004, edited by the seminar organizers, Richard Boland and Fred Collopy. In the introduction to the publication the editors draw on the well-known architect Frank Gehry's design process when he created the annex building for the Weatherhead School of Management at their university in the early 2000s. Gehry also participated in the seminar and contributed to the anthology (Gehry, 2004). Boland and Collopy were some of the first researchers who explicitly addressed design thinking in a management context,[24] albeit using the term interchangeably with *design attitude*, as pointed out by Johansson-Sköldberg, Woodilla J. and Cetinkaya, (2013).

Traditional management education is too preoccupied with teaching the students decision making, they argue, thus assuming that sufficient and proper design work has already been done (Boland & Collopy, 2004a). This leads to their conclusion that design in general is an important concern for managers. According to Boland and Collopy, managers need to learn to manage as designing, managing through design attitude, because change rather than societal stability is the norm, meaning that this design attitude supports the capability to handle change. Here 'design attitude' should be understood as perceiving each single project 'as an invention that includes a

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[24] Peter G. Rowe, professor of architecture and urban planning at Harvard University and chairman of the university's Department of Urban Planning and Design, is the author of the 1987 book *Design* Thinking, which deals with architecture and urban planning. The book did not, however, deal with design thinking in relation to management but with the process of designing within architecture and urban planning.

questioning of basic assumptions' (ibid., p. 9) and asking about 'the real problem' and 'best solution', while decision attitude 'chooses among alternatives already at hand' (ibid., p. 10). Also, a design attitude focuses on an acceptance of and comfort with a problem-solving process that 'remains liquid and open' for an unknown time (ibid.).

Twelve years later Boland repeated his points from 2004 on the difference between design attitude and decision attitude – this time under the heading "Struggle in Designing and in Managing." He states that design attitude is about realizing that we can always do better, 'not in the marginal sense of continuous improvement and commitment to more efficiency, but in the transformative sense that managers' responsibilities include reshaping the world they encounter and produce' (Boland, 2016, p. 64). Managers cannot be perceived as 'passive beings' who act in a known and familiar world, and whose task is to 'set goals for improvement' (ibid.) as for example 'financial wizards', who do not generate value but instead generate earnings for themselves by 'skimming' from the money floating through the system they are maintaining and serving. In concluding, he calls for a better, more ethical and more mature management culture and behaviour, which he proposes can be accomplished through design thinking (or design attitude).

Table 2. The managerial aspects of design, concepts, meanings and sources

Design	Authors / sources
To mark out, to plan.	Oxford English Dictionary
Preindustrial artisan work; Produced by industrial 'design work horses'.	Shiner (2003); Heskett (2002)
Physical and visual artefacts.	Heskett (2002); Buchanan (1992)

The extended concept of design

Design expands into processes, interactions, systems and politics; Anything/no special subject matter of its own;	Heskett (2002); Buchanan (2001, 1992)
Everybody designs ('who devises courses of action aimed at changing existing situations into preferred ones').	Simon (1969)
Design is about handling wicked problems.	Buchanan (1992) inspired by Rittel and Weber (1973)

Managerial aspects

Design management: Creation of products, places and communications involving managing processes, people, and promoting the role of design in the creation of physical contribution to organizations' strategic goal. Creating organizational capacity to adopt and use the design approach as part of response to change and external challenges. Focus on 'cost and prices' to a focus on 'innovation and business development as integrated conceptualization of design management articulated as 'design thinking' or design and business models'.	Erichsen and Christensen (2013); Cooper and Junginger (2011); Svengren-Holm (2011).
Design thinking: Organizational resource for managers aiming to make theirs an innovative organization.	Brown (2008, 2009); Brown and Martin (2015); Cooper, Junginger, and Lockwood (2009); Dunne & Martin (2006); Glen, Suciu and Baughn (2014); Kolko (2015); Martin (2009, 2011).
Managers working like professional designers.	Martin (2009).
Addresses fundamental assumptions, values, norms, and beliefs that make an organization what it is'.	Cooper, Junginger and Lockwood (2009)

Empathy with users, prototyping, and tolerance for failure'.	Kolko (2015)
Collaborative work style, democratic leadership, drawing on knowledge from many fields and disciplines and merging them in a meaningful and novel way. Ability to adopt a holistic view, understanding costumers' needs, end users' environment, social factors. Enjoying problem-solving, finding opportunities in places where others have given up. Accepting competing constraints willingly and even enthusiastically; increasing challenge and excitement, creative confidence, non-hierarchical relationships and passion and trust; future-oriented. A bundle of certain elements interlinked and manifested through practices, thinking and mentality.	Hassi and Laakso (2011)
Design attitude: Perceive each project as invention that includes questioning of basic assumptions; Asking about 'the real problem' and 'best solution', as opposed to 'decision attitude', which implies choosing among alternatives already at hand. Acceptance of and comfort with a problem-solving process that 'remains liquid and open'.	Boland and Colopy (2004)

4.4. Critical design management and design thinking research

As mentioned earlier, the relationship between design and management is a challenging affair due to the different epistemological and professional roots of the two fields, as brought forward by many design researchers before (Aguair, 2014; Eklund, Dell'era, & Karjalainen, 2015; Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2008b, 2008a, 2009, 2011; Rylander, 2009; Svengren-Holm, 2011). As Eklund et al. comment, due to these 'different historical roots and professional cultures as well as different educational and research traditions' (Eklund et al., 2015), the design-management relationship is not a harmonious one but 'prone to misunderstandings' (ibid., p. 14).

Johansson et al. (2009) summarize their perspectives on research into design thinking, exploring discourses related to management, innovation, strategy and design thinking. They state that while strategy is a military and economic term that has its own 'strong discourse within management', innovation derives from the field of economics and entrepreneurship and has become dominated by technology; design thinking, by contrast, has its origin in design and architecture (Johansson & Woodilla, 2009).

Cross-disciplinary research may be faced by different ontological and epistemological viewpoints. It is difficult to build a body of research on inconsistences and unclear philosophical foundations, which challenges the field of design and management in general and is discussed by, specifically, Ulla Johansson and Jill Woodilla from what I would call *The Swedish School of Critical Design Management Studies* in Gothenburg.[25] They show a possible way out of the ontological and epistemological uncertainty via a dialogue with Critical Management Studies (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2008b, 2009, 2011), and here they dig deeper into the ontological and epistemological character of design management. They

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[25] Ulla Johansson was a professor affiliated with the Business and Design Lab at the University of Gothenburg, and Jill Woodilla had previously been affiliated with the Business and Design Lab at the University of Gothenburg. They have published several papers on design management, design thinking and artistic interventions. Their work is characterized by subjecting design management and design thinking to a critical perspective inspired by Critical Management Studies. Several PhD theses have recently followed up on their work, articulating a critical stand towards design thinking (Aguiar, 2017; Amacker, 2017; Jahnke, 2013; Wetter-Edman, 2014), however not on the relation between design and management.

find that 'design theories rely on assumptions that are almost a diagonal inverse from those in management theories' (Johansson & Woodilla, 2008b, p. 15). This means that research into design practice and the field managing it relies on diagonal inverse paradigms, which makes the research contributions paradigmatic incommensurable; I will elaborate on this in the following.

Johansson and Woodilla (2008, 2011)[26] apply Burrell and Morgan's sociological paradigmatic framework (1979) on the cross-disciplinary field of 'design management' in order to clarify the different paradigmatic positions between mainstream management research, design research and design management research. They conduct a paradigmatic analysis within the context of design research and management research; finally place design management research within the matrix, too, looking for overlaps among the three fields. To their surprise, they find a decisive difference between the location of, respectively, design research and research on design management, as they find a very small overlap between the fields. In their view, most design research is conducted within the radical humanist paradigm, where reality is perceived as constructed through future artefacts and so forth. They point to unintentional paradigmatic inconsistencies within the field of design practice and design management, because much design management research (like the traditional field of innovation management research) draws on the functionalist paradigm, which is found at the intersection of the objective dimension and the regulation dimension and positioned together with 'scientific management and subsequent fads' (Johansson & Woodilla, 2008b, p. 10). The authors conclude this to be an academic problem that risks leading to 'shallow' research:

'Most design management research exists within the functionalist paradigm, relying on objectivity and regulation as foundational assumptions. It is scarcely represented in the radical humanist paradigm, where design has its base. This is surprising, because if design management is an intersection between design and management research, one could expect the paradigmatic platform to have its anchor in the paradigm where two of them overlap and thereby find some paradigmatic coherence' (Johansson & Woodilla, 2011, p. 471).

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[26] Johansson and Woodilla (2008) and Johansson and Woodilla (2011) are two versions of the same paper. The former was presented at a conference; the latter was published in *Handbook of design management* (2011) The latest paper is thus a rewriting of the first and contains some minor changes and elaborations. Despite the similarities, I still think it is worthwhile mentioning both of them. For instance, they are more blunt about their surprise at their results in the 2008 version (paradigmatic incommensurability), and the 2008 version is cited by Christiansen and Erichsen (2011).

Furthermore, in the provisional conference paper from 2008 they criticize the field of design management for having 'a comfortable place within management research, relying on mainstream, functionalist management literature and gurus such as Porter (1980, 1985) and Kotler (Kotler and Rath 1984)' (Johansson & Woodilla, 2008b, p. 18). They find this to be problematic from a design-practice perspective, since, from their point of view, it differs from rational and analytic processes. Instead, they define design practice as a holistic way of creating something new and unanticipated (ibid.), which they explain further in a piece about designers and hierarchies. Here they describe and discuss designers' way of working as being more detailed, in part using the metaphor of the *zoom function of a camera*. While working, designers zoom in and out on their work, attending to the details and adapting the part and the whole to each other along the way, they argue (Johansson & Woodilla, 2008a).

4.4.1. Designerly thinking versus design thinking

The different ontological and epistemological backgrounds between management and design is a topic the authors pursue in both earlier and later publications (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2009). In 2013 they provide an overview of the two concepts of 'design thinking' and the term originated in the research field focusing on design practice: 'designerly thinking', which they interpret as two different versions of what is conventionally characterized simply as 'design thinking'. Reviewing 168 books, academic papers and conference papers, newspapers and magazines (of which 80 percent were published after 2000) Johansson-Sköldberg et al. (2013) arrive at the two different concepts: *designerly thinking* and *design thinking*, which they further subdivide into, respectively, five and three sub-discourses. The authors see designerly thinking as 'the academic construction of the professional designer's practice (practical skills and competence)' combined with the 'theoretical reflections around how to interpret and characterize this non-verbal competence of the designers'.

According to Johansson-Sköldberg and Woodilla (2013), designerly thinking connects theory and practice 'from a design perspective, and is accordingly rooted in the academic field of design' (ibid., 123). The concept of design thinking, on the other hand, is viewed by the authors as 'the discourse where design practice and competence are used beyond the design context (including

art and architecture), for and with people without a scholarly background in design, particularly in management' (ibid.). In conclusion they suggest the design thinking concept to be 'a simplified version of "designerly thinking"' (ibid.). Regarding designerly thinking, the authors find five sub-discourses articulated by the well-known figures within classical design research, Herbert Simon (1969) focusing on the creation of artefacts, Donald Schön (1983) focusing on the designer's reflexive practice, Richard Buchanan (1992) focusing on design as problem-solving activities (based on Rittel & Webber, 1973), Brian Lawson (2006 [1980]) and Nigel Cross (2006, 2011) focusing on designers' way of reasoning and making sense of things and, finally, Klaus Krippendorff (2006) focusing on designerly thinking as creation of meaning. The authors organize the different contributions under three headlines: 1) designerly thinking in practice (Schön, Buchanan, and Lawson/Cross), 2) rationalized and systematized practice (Simon) and 3) meaning creation (Krippendorff).

The second main discourse (design thinking) revolves around design practice and competences beyond the professional design context, which means that designers' way of working is transformed to a practice *outside* design practice itself, which affects the phenomenon: 'Design thinking then becomes a simplified version of designerly thinking or a way of describing a designer's methods that is integrated into an academic or practical management discourse' (ibid., 123). In this discourse they find three sub-discourses: 1) the IDEO way of working, 2) a way of approaching indeterminate problems and so-called necessary skills for practicing managers and 3) a part of a management theory. Relevant for the topic of this thesis is the design thinking discourse, because, the focus here is on design thinking in the managerial discourse, which proponents claim increases the innovative capability of an organization. Hence, in the following, I subject the concept of design thinking from a managerial perspective to a closer inspection.

Since the beginning of the 2000s, the brothers Tom and David Kelly have widely successfully disseminated the work of the American design firm IDEO in Tom Kelly's books about 'lessons of creativity'. Later, in a 2008 book by the CEO of IDEO, Tim Brown labelled IDEO's way of working as 'design thinking' (as Martin (2009) also referred to). The message conveyed by the books and other writings is that anybody can learn their methods by following certain steps, which in

addition should be meaningful and relevant to managers pursuing the innovative organization: 'Leaders now look to innovation as a principal source of differentiation and competitive advantage; they would do well to incorporate design thinking into all phases of the process' (Brown, 2008).[27] The idea that designers' way of working is useful to managers has over the years been repeated in the Boston-based Design Management Institute's two journals (*DMI Review* and the academic *DMI Journal*). However, this is 'most often without theoretical grounding,' according to Johansson-Sköldberg et al., which is of course a problem in an academic context (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013, p. 128).

Roger Martin (2009) followed up on his previous interest in successful executives' cognitive processes and now found design practice to be an alternative to managerial thinking.

'Design thinking in this discourse is an ongoing cycle of generating ideas (abduction), predicting consequences (deduction), testing, and generalising (induction) became a way to approach indeterminate organizational problems (…)' and a 'necessary component of management education' (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013, p. 128).

Although Martin succeeds in shedding clarifying light on design practice, he simultaneously simplifies design work, as no connection has been established, whether theoretically or educationally, between Martin's version of design thinking and design practice research (ibid.).

4.4.2. Design thinking and management theory

Finally, in the perspective of Johansson-Sköldberg et al., design thinking is less thoughtful and much younger than designerly thinking and 'may be a way for managers to "understand design [practice]" in a more straight way than through the elder design management discourse (…)' (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013, p. 127).

In summary, the authors have described the two versions of design in the management discourse, of which the academic version (designerly thinking) has a long tradition within the design research

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[27] Quoted from IDEO's website: https://www.ideo.com/post/design-thinking-in-harvard-business-review (Accessed August 2018).

environment, where it has lived a rather isolated life in relation to different management research streams, for example Critical Management Studies and Organization Studies

Moreover, what Johansson-Sköldberg et al. (2013) find from their inquiry is (among other points) that the translation of design practice to a more abstract approach and way of thinking has left something out. First, they find that design thinking is often connected to creativity in general, which they find problematic, since, as they state, creativity is only a part of designers' competences and way of working. Next, design thinking is often referred to as a *tool box*, as methods taken out of the design practice context. The problem here is that removed from the context of design practice, tools, principles and methods are treated as isolated items that everybody can use, as if no prior knowledge was required. 'But the person using the tools must have the knowledge and skills – competences that comes with training – to know when to use them' (ibid., 131), the authors state, comparing design to music. It takes skilled musicians to use musical instruments to create music, just as it takes skilled designers to use design tools to create design. Amacker (2017) expresses it in a slightly similar way:

'(…) design thinking is, by and large, promoted to management in a language they understand as a structured process, a set of methods or skills, or a framework for innovation. Yet, it has been well established for some time that creativity flies in the face of systematization and management (George, 2007; Sutton, 2001). And many designers recognize the contradiction that design creativity, in whatever form, is not fixed, asserting that "design thinking is killing creativity" (Ling, 2010). Bruce Nussbaum (2011), (…) provocatively claimed that "design thinking is a failed experiment," saying that it has caused the profession to "ossify." In this case, "formalizing the tacit values and behaviors of design" (Nussbaum, 2011, para. 7) through reasonable and well-thought-out operations means taking something as illusive and unpredictable as creativity and *essentially making it rational*.' (Amacker, 2017, pp. 23–24) (my italics).

Amacker thus distances herself from the term and basically claims it to be a maltreatment of design practice, because it transmutes design practice into something rational that can be verbalized. Johansson-Sköldberg et al. (2013) nevertheless do see a possible future research into 'design thinking', which could be paradigmatically consistent, and hence linked to the 'designerly thinking' discourse, as for instance design and innovation from a hermeneutic point of view, as pursued by, for example, Verganti (2009) and Jahnke (2013), or investigating the differences and similarities between managers' and designers' way of thinking and reasoning. They conclude that

the five designerly thinking discourses are aware of each other, just as there are links between the three design thinking discourses. Importantly, however, there are few, if any, cross-references between the two main discourses, which from an academic point of view is problematic. Having awareness of the pluralistic character of the field and building on a similar ontology is a necessary condition for making a reliable research contribution, they state.

The aim of the chapter is not to draw a history of the development of design thinking as a concept; instead, the aim is to follow the development of the concept for the purpose of investigation if it can be usefully applied in the context of a management team's aim for re-organizing for innovation. Academic writings on design thinking from a perspective of management theory — according to the literature review by Johansson-Sköldberg et al. (2013) — are exclusively provided by Boland and Collopy (2004), who connect their work to the academic version of design thinking — 'designerly thinking' — by referring to Herbert Simon (1969).[28] However, in doing so, they tap into the *rational* discourse of design thinking due to Simon's approach to design practice. Hence, I will propose a position of Boland and colleagues' work (Boland, 2016; Boland & Collopy, 2004a; Jelinek, Romme, & Boland, 2008) and their label 'managing as designing' within Burrell and Morgan's *functionalist* paradigm and hence still paradigmatically incommensurable with design practice, rooted in the radical humanist paradigm. Johansson and Woodilla's paradigmatic analysis of design management (2008, 2011) does not focus on the concept of design thinking; thus, positioning it in their critical framework on design management is my suggestion.[29]

The paper by Johansson-Sköldberg, Woodilla and Cetinkaya (2013) clarifies many of the challenges we face in seeking to understand the concept of design thinking thanks to their thorough reading of the immense contributions to the concept and their effort to organize them into different categories. This leads them to reject a 'unique meaning of "design thinking"' as well as the aim of seeking one single meaning of the concept. Instead, stressing that they are not essentialists, they state that they have sought to determine where and how the concept has been

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[28] I rely the review of Johansson-Sköldberg, Woodilla and Cetinkaya, throughout the dissertation, because I have not found other contributions on the topic of the managerial aspects of design thinking and paradigmatic incommensurability since 2013.
[29] They do mention the concept, but as I see it, rather as a synonym for design than as a key concept for their article.

used both in academia and in practice and explored 'what meaning is given to the concept'. (ibid., p. 132).[30] The authors' criticism of the popular concept of design thinking in a practical management context, their effort to extract tools and methods from design practice and the lack of metatheoretical reflections related to it are echoed by other critical voices in the design research environment. Their colleagues find it particularly difficult to accept a concept of a version of design practice when materials and what they see as aesthetic and embodied qualities are left out.

In the following, I provide a review of contributions, extending Johansson-Sköldberg et al.'s criticism of the reduction of design practice, in order to understand if there is something left for managers and management students to learn with regard to leading reorganizing for innovation as originally proposed by design thinking proponents (Brown, 2008, 2009; Brown & Martin, 2015; Cooper et al., 2009; Dunne & Martin, 2006; Glen et al., 2014; Kolko, 2015; Martin, 2009, 2011).

4.4.3. More critical voices

As mentioned, the concept of design thinking and design in a managerial perspective is criticized from other angles and by other researchers. In the following, I first provide examples of the criticism from an organizational scholarly point of view and then move on to design researchers' criticism of the concept of 'design thinking' for leaving out important aspects of design practice.

Johansson-Sköldberg et al. (2013) criticize contributions to *Managing as Designing* (2004), stating that in this publication organizational scholars simply offered their usual points giving them a 'design flavour'. However, it does not quite do the contributions justice, as there are several contributions in the anthology offering legitimate critique. For example, Wanda Orlikowski points to the risk to 'succumb to the temptation to idealize it [design]' (Orlikowski, 2004, p. 90). Moreover, she points out the duality of the benefits and drawbacks of design, stating that in talking about design we experience both 'possibilities and pitfalls' (ibid.) Additionally, she states that managing and designing are not that different from each other. On the contrary, 'managing

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[30] Other researchers have done similar work; however this has either focused on designers' way of working through ethnographic fieldwork (Michlewski, 2008, 2015) or, conversely, on employees in certain companies arguing that they work within a design thinking framework (Carlgren, 2013; Carlgren, Elmquist, & Rauth, 2016).

is designing' [italics in original] (ibid., p. 91), since both design and management engage 'in production of representation', in 'constituting reality' and 'enacting reality'. Quoting Bowker and Star (1999) she emphasizes that neither subject has a reflexive practice of debating its constituting role in society 'tending to deny or take for granted embedded ideologies of instrumental or aesthetic rationality' (ibid.), which in her view is ethically 'dangerous'.

Orlikowski also refers to enactment, stating that in using the term 'design', the organizers of the workshop at Case Western mean 'creating of desirable futures' (ibid., 93), but that we should not forget that the value of design is the engagement of people. Design cannot be complete without enactment.

'Good design in this view is not an intrinsic feature, stable property, or static quality of representation (designed artefact, building, program, organization), but a recurrently enacted accomplishment provisionally and ongoing achieved by human actors trying to use the design to get something useful done.'

Orlikowski closes her chapter by stressing that if a new vocabulary of design is not sufficiently *reflexive*, the risk is to 'reinforce privileged interests and values' (ibid., p. 95).

Next, critical views of the concept of design thinking point to the reduction of the qualities of design practice by, for instance, overlooking the aesthetic and embodied knowledge, quality manifested through a close communication and interaction with materials (Amacker, 2017; Hjelm, 2005; Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Kimbell, 2011; Stigliani & Ravasi, 2012). Sara Ilstedt Hjelm (2005) was one of the first, in the mid 2000s, to claim that design practice cannot be abstracted to ways of *thinking*. She points to 'the aesthetics' understood 'in the original Greek meaning as "what meet the senses"' (ibid. p. 2), and warns against what she sees as the 'dichotomies of our time' between for instance theory and practice, body and mind and so forth. Her paper is a reaction to the expanded concept of design asking that '(...) if everything is design and everyone designs what is then the particular competence of the practicing professional in graphic, industrial or interior design?' (ibid. p. 1).

To Hjelm, 'aesthetic knowledge is based on long and deep intellectual as well as practical knowledge of the subject, and a "repertoire" of similar problems and inquiries' (ibid. p. 4). However, aesthetic knowledge is a challenge to articulate verbally and constitutes a kind of tacit knowledge, she states, concluding that 'design as profession relies on a deep familiarity of aesthetical practice' (ibid. p. 4). In a similar vein, Anna Rylander (2009) explores different constructions of knowledge in knowledge work and design thinking. She states that while knowledge workers, defined as 'primarily high qualified people to solve complex problems in a creative way' (Rylander, 2009, p. 8), generally have a rational, analytic or intellectual approach to their tasks, designers have an interpretive, emergent and explicitly embodied approach.

She also states that one of the sources producing the differences is the fact that designers are trained in studios of the design schools, '[t]heir central educational device. In a process of learning by doing, students are set a series of design problems to solve' (ibid. 10), meaning that designers are trained in a learning-by-doing mode while simultaneously having a bodily contact with materials of different kinds. She concludes that '[d]esign as problem solving is thus embodied in character and requires the ability to embrace many different kinds of thought and knowledge—art, science, and technology' (ibid.). Furthermore, she draws on Alvesson's[31] research on knowledge work, which questions the significance of knowledge in 'the functions of knowledge intensive firms' stating that the 'heavy reliance on knowledge – that is, the intellectual kind - as portrayed in the knowledge intensive firms' literature – may be largely a myth' (ibid. p. 9). Furthermore, she argues that all intellectual activity is embodied by referring to a larger body of research.[32] 'As empirical research in cognitive science has clarified, everything that we can experience, think, and know is dependent on how our bodies and brains cooperate in thinking and acting' (ibid. p. 14).

Kimbell (2011) has similar observations of the concept of design thinking as reducing the qualities of the embodied and aesthetic design practice. She, too, points to a dichotomy between design and thinking and emphasizes (by referring to Adams et al. (2010)) that the duality between

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[31] Alvesson, M. (2001). Knowledge Work. Ambiguity, Image and Identity', *Human Relations*, *54*(7), 997–1015.
[32] Damasio, 1994, 2000; Johnson, 1987; Lakoff and Johnson, 1999; Maturana and Varela, 1987; Varela, Thompson, and Rosch, 1991).

cognition and action should be avoided, 'instead they [Adams et al] propose a framework in which knowledge and skills are embedded in an embodied understanding of practice' (Kimbell, 2011, p. 296). She encourages us to reframe design thinking '[b]y focusing on situated, embodied material practices' whereby we could turn 'the conversation away from questions of individual cognition or organizational innovation. Instead, design becomes a set of routines that emerge in context' (ibid. p. 300). Hence, Hjelm (2005), Kimbell (2011), and with Johansson-Sköldberg and Woodilla (2013) question the notion of extracting the process of thinking from design practice dealing with materials and, through training, creating embodied knowledge about materials and problem-solving within the frames of dominant educational device – the design studio.

Finally, Ileana Stigliani and Davide Ravasi (2012), conducting research into design thinking in a managerial context, also argue that design thinking cannot be decoupled from the practice of design. They argue that managers need to be trained in material practices 'that complement and substantiate these different approaches to problem solving' (Stigliani & Ravasi, 2012, p. 1255). Working on a topic with material representations will stimulate managers to take an open approach to reconceptualizing products, clients and competitors, and they find that if managers are not trained in 'the material practice it may produce limited results' (ibid.). However, although arguing for socio-material interaction, they do not address the topic of embodied knowledge explicitly, in contrast to Hjelm (2005), Rylander (2009), Kimbell (2011), Johansson-Sköldberg (2013) and Amacker (2017).

Table 3. Critical arguments towards the concept of design thinking

Critical arguments	Authors
<u>Paradigmatic incommensurability</u> between design practice and design research linked to research on management risks leading to shallow research. One single link between (decades of) research on designer practice and design thinking from a managerial perspective (Boland and Collopy (2004) and Simon (1967)) reveals a rationalistic perspective on design (and hence results in paradigmatic incommensurability).	Johansson & Woodilla (2008, 2011) Johansson-Sköldberg, Woodilla & Cetinkaya (2013), Erichsen & Christensen (2013)[33]
The concept of design thinking <u>reduces design practice</u> to tools, principles and methods, leaving out aesthetics, embodied knowledge and interactions with materials.	Amacker (2017), Johansson-Sköldberg, Woodilla & Cetinkaya (2013), Ravasi & Stigliani (2012), Kimbell (2011), Hjelm (2005)
The concept of design thinking <u>produces a subject-object dichotomy</u> between body and mind.	Amacker (2017), Kimbell (2011), Hjelm (2005)
Literature on the managerial aspects of design tend to <u>idealize design; to lack reflexive practice</u> debating design's and management's constructing role in society; <u>to deny or take a given ideology for granted</u>; to overlook that there exists no design without concurrent enactment; and that we cannot speak of any intrinsic feature of design.	Fallan (2010), Orlikowski (2004), Lyytinen (2004) Hassi & Laakso (2011)
The designer as <u>controlling and omnipotent</u> vs. having an exclusively 'good' intention.	Orlikowski (2004), Lyytinen (2004)
A tendency to articulate <u>essentialism</u> and a <u>new grand narrative</u>, a risk of referring to scientific naturalism.	Fallan (2010), Johansson-Sköldberg, Woodilla & Cetinkaya (2013)
Designing as a negative process as someone who 'acts in a deceitful way, having ulterior motive'	OED

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[33] Quoting Johansson-Sköldberg & Woodilla (2011).

4.5. Classical Pragmatists' key concepts related to design

As I announced in the introduction, I will also draw on American Pragmatism since my own position in OMS as well as design researchers draw on, for instance, James and Dewey. When design researchers enquire into designers' way of working their theoretical understanding of design practice is often informed by the contributions of the Pragmatists. (Amacker, 2017; Buchanan, 1992; Dalsgaard, 2014; Dunne & Martin, 2006; Jahnke, 2013; Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Kolko, 2010, 2015; Martin, 2009; Melles, 2008; Rylander, 2012; Schön, 1983; Waks, 2001; Wetter-Edman, 2014). One of the best-known proponents of the relationship between design practice and Pragmatism is Donald Schön, who enquires into designers' way of working as practitioners *(The reflective practitioner – how professionals think in action, 1983).* According to, for example, Dalsgaard (2014), Schön's work can be understood as a way to reflect Pragmatism onto design practice. He states, for example, that 'Pragmatism (…) clearly lends backing to the iterative model of design processes (…) and that '[a]nother central tenet from Pragmatism that is now the core part of design thinking is the ongoing exchange between thought and action, which are intrinsically interrelated' (Dalsgaard, 2014, p. 150).[34]

Quite contrary to Dalsgaard, Amacker (2017) finds this exchange between thought and action problematic due to Schön's presumption 'that interpretation of tacit knowledge constitutes an experience of "thought"' (ibid., p. 41). In her PhD thesis, focusing on embodied openness and designing, she stresses that the '[c]anonical literature on designers' way of thinking and working relies heavily on observations, either describing the actions of designers from personal observations and/or from interviews with designers describing their experiences' (Amacker, 2017, p. 41). As an example of this, she refers precisely to Schön (1983), whose work, as she puts it, relies predominantly on interviews and observations. To her, this idea of reflection-in-action mirrors an assumption that we can talk about a separation between reflection and action 'by time and space.'

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[34] Dalsgaard initially declares that his interpretation of design thinking should be understood inclusively and in a broad sense. The quote here is an example of a reading of the relationship between Pragmatism and design, not as an attempt to reconsider the concept of design thinking.

Amacker's points are also brought forward in the organizational literature, for example by Holt and Sandberg (2011), including the work of Karl Weick, who address exactly this challenging dichotomy. This also adds to a critique of dichotomy in the critical design management research conducted by Johansson-Sköldberg et al. (2013), and leads to the conclusion that Schön's view on design practice might not be that well suited for establishing a link between design practice and contemporary organization and management studies as Johansson-Sköldberg et al. (2013) conclude.[35] In order to achieve more insight into how Pragmatism can inform design practice, I will, in the following, dig a little deeper into the pragmatists' work. This choice makes sense because Pragmatism has inspired organizational scholars focusing on process philosophy, which I draw on in my methodology. I have decided in particular to follow William James's and John Dewey's philosophy, because they offer specific links to organization and management studies.

As classical pragmatists, the philosophers William James (1842–1910) and John Dewey (1859-1952) founded their philosophy on the idea that theories must be linked to experience and practice (hence the name 'Pragmatism) (Rylander, 2012). James has served as an inspiration through his philosophy on the general human condition and on being in the world, while Dewey's concepts have been transferred directly to the theory of design practice. These are 1) the situation, 2) experience, 3) doubt, 4) inquiry and 5) the significance of embodiment.

A brief note related to the innovation of UTC, the work of William James and his successors of philosophy, including John Dewey and contemporary intellectuals (for example Sigmund Freud, James Joyce, Franz Kafka and Marcel Proust) expresses a cultural reaction to the new mathematical and homogenized time, which became a topic in his and others' work (Kern, 2003). As early as 1884, in an essay on 'stream of thoughts' James argued that time is fluid and not a connection of independent units. Later in 1920, in relation to time and flux, Freud stated that 'unconscious processes are "timeless," for the passage of time does not change them in any way and "the idea of time cannot be applied to them,"' quoted through Kern (2003, pp. 24–31). In this context Amacker's points about Schön's idea of separating thoughts between time and space are in line with James and Dewey and the other thinkers of that time.

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[35] See the arguments brought forward by Johansson-Sköldberg et al. (2013) p. 125.

More specifically, James claimed that human consciousness does not register 'things' as final stops. Instead, he considered consciousness a flux, which implicates our individual perception of time, contrary to the detailed, mathematical and artificial understanding and measuring of time that condition our professional life. This brief link back to the innovation of the homogenized world time is done in order to show how innovation impacts our lives, as pointed out by Hjorth (2012b). In this context, the technological development has impacted pragmatists' reflections – still based on Kern (2003). The new innovation (the instigation of UTC) prompted their philosophy and caused them to voice their opposition to the notion of time as something chopped up in seconds, hours and so forth. The Classical Pragmatists are seen as predecessors for contemporary process philosophy and thinking, which is why the thinking of, for example, James and Dewey are described in *The Oxford Handbook of Process Philosophy in Organization Studies* (Helin, Hernes, Hjorth, & Holt, 2014).

'Consciousness...does not appear to itself chopped up in bits. Such words as "chain" or "train" do not describe it fitly as it presents itself in the first instance. It is nothing jointed; it flows. A "river" or a "stream" are the metaphors by which it is most naturally described. In talking of it hereafter, let us call it the stream of thought, of consciousness, or of subjective life. James, 1890a: 239' (Powell, 2014, p. 173).

To recapitalize briefly, the assumption that consciousness flows caused the Pragmatists to distance themselves from the subject-object dichotomy between 'mind-matter, reason-emotion, theory-practice, individual-community' (Rylander, 2012, p. 3). Design researchers (Amacker, 2017; Hjelm, 2005; Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Kimbell, 2011) who were critical of the concept of design thinking also emphasized the significance of the unity between body and mind expressed as 'embodied knowledge'. As we will see in Chapters 5 and 6, this also characterizes Karl Weick's thinking, which thus points to a possible paradigmatic commensurability between the theoretical reflections on design practice via Pragmatism and OMS. In the following I unfold Dewey's work in slightly more detail in order to clarify its relevance in relation to design practice. This will then constitute a foundation for a common ground between design practice and OMS articulated through Karl Weick's perspectives on 'managing as designing' in Chapter 5.

4.5.1. Emotions and embodiment

Time is not the only factor that contributes to separating impressions and feelings from the world outside human consciousness; language similarly supports the artificial construction of our reality. Quoting James, Rylander expresses it like this:

'(...) a thought encompasses so much more; "dimly a thousand other things". This includes things known before as well as to come, like the silence accompanies the thunder. But as James notes, the *feeling* of a thunder implies that there is a certain quality to a thought that can be felt, but not named. And if it can be felt, then the consciousness is always embodied' (Rylander, 2012, p. 10).

Embodied experience produces emotions that speak to us even when we are not able to express them in words. Or the other way around: language cannot adequately represent our human reality. James's notion of stream of thought is a concept that has inspired his successors. It is directly transformed into Dewey's 'aesthetic experience as an immediate felt quality that provides unity and direction might be regarded as a further development of James' theory of consciousness' (ibid. p. 23). Also, the philosophy of Pragmatism is often referred to as encompassing a theory of embodiment, because it does not accept separations between body and mind; on the contrary, everything that we can 'think and feel or do is thus conditioned by our biological make-up' (ibid.).

Following James, consciousness flows while language deludes us by breaking our thoughts up into discreet elements, names and labels, and we are thus forced, for example, to focus on the figures in a picture (whether tangible or intangible, literary or metaphorical), because they have significant labels that can be articulated through language. This is a phenomenon that artists do not accept as shown, for example, by the cubists Braque and Picasso in the beginning of the 20th century. As a new artistic breakthrough, their cubist pictures merge figures and their backgrounds into one single surface without depth, whereby they insist that distinguishing between figure and background is an artificially acquired perspective, which they deconstructed in their work (Kern, 2003). This, I would add, aligned with James's rejection of the above-mentioned dichotomy. What is less well known is that by pushing the limits for our understanding of our surroundings the cubists contributed to the invention of military camouflage clothes (ibid.), which may thus be seen as an example of Hjorth's point about the new as being often announced by art (Hjorth, 2012b).

4.5.2. Situation and experience

Following Vo & Kelemen (2014), Dewey explores the individual felt present moment: 'The situation', which continuously changes due to experiences of the surroundings and hence forces us to reflect and examine our situation when we experience even minor changes at any time. According to Dewey, we can talk about four types of situations. The first one is a situation that is 'determinate', where humans and their environments are aligned. The second situation is an 'indeterminate' one, where the experience of being attuned with the environment is disrupted, with confusion and disorientation as a consequence.

Third, the situation can be a problem if the indetermination leads to doubt, while the final and fourth type of situation is a problem-solving activity, which transforms the indeterminate situation into a new determinate one, where doubt and confusion disappear. This will not be the same situation as the first determinate one, however; instead, it will change the individual (having perceived the first situation), who thus becomes a different person within the environment 'which has also changed due to his problem solving activity' (Vo & Kelemen, 2014, p. 239). Moreover, Dewey sees a situation as a contextual whole through which we will always experience and judge objects and events. To him they are coupled to another important concept – 'the inquiry', which is the act of leading a transition from the first type of situation through the process of inquiry to the fourth type of situation (Vo & Kelemen, 2014).

The situation is only open to inquiry when its 'constituents' do not hang together, which in turn leads to the indeterminate situation. We feel doubt because we experience our situation as uncertain, unsettled, disturbed, ambiguous and confused. The inquiry is triggered when the situation is recognized as problematic, while identifying the problem takes us half-way to solving it (Rylander, 2012).

4.5.3. Doubt, inquiry and enactment

According to Dewey, it is this doubt that leads to the process of inquiry when our anticipation of things and everyday life surprises us and becomes difficult to deal with. Importantly, however, the disrupted determinate (or the indeterminate) situation cannot be solved through habits and

routines. In order to move into the inquiry, a qualification of a problematic situation needs to be initiated. When the problem is identified, we have taken a step into the inquiry. However, the constituents in the problematic situation need to be identified, too. This process results in a 'proposal for action' (Vo & Kelemen, 2014, p. 240), a hypothesis that articulates the relationship between actions and consequences based on a hypothetical 'interpretation of what is problematic about the indeterminate situation' (ibid.).

The proposed hypothesis corresponds 'with the actual situation', if the hypothesis is acted out, and if the act has the expected result, the indeterminate situation and the inquiring process end. However, the inquiry only eliminates doubt if action transforms the current indeterminate situation into a new determinate situation. An absolute final situation does not exist, though, as the new determinate situation creates new conditions, which in turn leads to new problems. Humans are thus situated in a never-ending repetitive cycle.

4.5.4. Inquiry, learning, knowledge and habits

Dewey did not believe in general knowledge and universal understanding of the world. According to him, knowledge is the outcome of inquiry, which transacts challenges or problems between humans and their environment (Vo & Kelemen, 2014, p. 241). In Dewey's perspective a philosophical theory of knowledge 'must maintain a reasonable degree of internal consistency and respect some methods by which beliefs about the world are reached. Such methods must abandon the traditional separation of knowledge and action and instead install action at the heart of knowledge' (ibid. pp. 242–243). Moreover, this perspective calls for a 'constant and effective interaction of knowledge and action' (ibid.), which paints the human condition as being situated in a continuous flow and flux, which was also articulated by James. This notion is supported by the remark (Aguiar, 2017; Amacker, 2017; Dalsgaard, 2014) that pragmatists did not develop a theory of design practice, which also means that James' and Dewey's philosophy is as much about a general human condition and behaviour as it is a theory for design practice.

Action directed by knowledge equals methods and means – not a stop. Dewey distanced himself from the traditional ideas of learning, which could be described as 'a piece of knowledge' (Vo &

Kelemen, 2014, p. 243). Instead, for Dewey, learning is inherent in the inquiring process. He coins the concept of 'inquiry' to express 'the actual way in which one has experience and becomes knowledgeable' and talked about so-called background knowledge behind consciousness and language, like knowledge lying outside conscious awareness as a reservoir of tacit knowledge. Background knowledge usually functions 'smoothly and without deliberation' completes everyday tasks also known as habits. Although smooth, however, the process may fail: the more efficient a habit, the more unconscious is its way of operation. 'Knowledge arises because of the appearance of incompatible factors within the empirical situation' (Dewey, 1916/1989:7, quoted through Vo and Kelemen (ibid., p. 243).

Differently put, without the acknowledgement of incompatible factors, there will be no learnings. According to Dewey, learning is the combination of reflection and action, while 'habits are basic blocks of all our actions, being integral to how we think and act. Effective action whether at an individual level or collective is mediated by habits' (ibid., p. 248). This is also to say that the inquiring process cannot solve everything. We need habits in order to simplify our lives and minimize complexity – 'smoothly and without deliberation' as Vo and Kelemen point out, echoing Dewey's thoughts.

Table 4. Overview of James's and Dewey's concepts

Concepts	Meanings
Stream of thought (James, 1890)	Human consciousness flows, which we cannot capture fully in words. On the contrary, they single out pieces of the world, such as 'chain' or 'train', and hence, fluidity and continuity are key perspectives on human life.
Embodiment (James, 1890; Dewey, 1938)	Rejecting the subject-object dichotomy: no division between body and mind, which instead are seen as a single entity.
Situations (Dewey, 1938)	
Determinate situation	Humans and environment are aligned.
Indeterminate situation	The attunement with environment is disrupted and causes confusion, disorientation and doubt. This calls for a new situation in order to remove doubt and uncertainty.
Problematic situation	The situation's constituents are not cohesive. Registering, qualifying and identifying the constituents of the problematic situation prompts the inquiry.
Inquiry	Proposal for action through an articulation of the relationship between actions and consequences based on a hypothetical interpretation of what renders the situation problematic. The hypothesis is acted out; if it has the expected results the inquiry ends. Inquiry and experience lead to new knowledge.
New determinate situation	The inquiry has removed doubt and transformed the situation into a new one and changed the inquiring individual.
Habits (Dewey, 1938)	Background knowledge, which functions unconsciously, smoothly and without individuals' deliberation.

4.6. Managing artfully

The need for a different approach to management has been addressed in the literature discussed throughout this part of the dissertation, from the literature on the managerial aspects of innovation pointing to disruption and hypercompetition to the literature on design thinking in the management discourse and managing as designing. However, given the criticism paradigmatic incommensurability between design and management reduces the special qualities of design, a search for alternatives seems important. To that end, the work *Artful Making – What Managers Need to Know About How Artists Work* by Robert Austin and Lee Devin (2003) is worth examining. Like Boland and Collopy (2004), Austin and Devin stress that in today's information economy management should be different from the kind of management that was appropriate for industrialized production. With this they emphasize that the word 'manage' implies a 'not too narrow' understanding of the term. They argue that we should draw inspiration from collaborative artists – a managing style they term 'artful making' and explain as follows:

'Artful because it derives from the theory and practice of collaborative art and requires an artist like attitude from managers and team workers. Making because it requires that you conceive of your work as altering or combining materials into a form for a purpose.' (Austin & Devin, 2003, p. xxii)

In defining the term 'making' the authors refer to Aristotle, who 'applied it to unique products composed of interdependent parts: handmade, unique things, in other words' (ibid.). This insight leads them to state that this understanding of 'making', as handmade unique things, has been pushed into the background while industrial mass production moved into the foreground.

4.6.1. Preindustrial iteration processes

In order to clarify what they mean by 'artful making' they take the reader back in time, to preindustrial history, a time when goods were manually adapted to each individual customer – a production approach we would now call 'customization'. Unlike today, however, this involves the expensive making process of, for instance, heating metal and hammering it into shape. Austin and Devin exemplify this understanding with a story about the (fictive) owner of a small guild, who provided the king with armour and spent a great deal of time on reconfiguration and exploration during the manufacturing process. Thus, every production process was different from the

previous one, particularly with regard to configuration and exploration, since the persons who were to wear the protective garb all came in different shapes and sizes. The result of this business process was that while the value for the customer was high, the value for the maker was the same each time.

Now, due to increased technological development, production gradually evolved into industrial mass production, which had no room for the preindustrial iteration processes of reconfiguration and exploration. It is this iteration process Austin and Devin suggest to bring back in today's production processes, inspired by their own experiences from software development and play production. One and of their arguments is that in today's information economy, which relies to a great extent on knowledge work, iterations are much cheaper than during the preindustrial production process of 'heating metal and beating it into shapes' (ibid. xxii). The reason is that they involve, for example 'strategies, product design, or software – new things groups create by thinking, talking, and collaborating' (ibid.), but

'(…) we don't yet really know how to think about the evolving nature of work. We still base our framework and metaphors solidly on learning from the previous era. We know our industrial age thought patterns intimately. We're comfortable with them. We love them because they are so successful for us as we strive to work and manage well, to create economic value, wealth, and improved standards of living.' (Austin & Devin, 2003, p. 1)

Their aim is to show that 'theatre practices, agile software development, some new methods of strategy making and project management' (ibid., p. 3) all have something in common. However, as they stress, they need an 'alternative metaphor' (ibid., p. 2) to describe managing through iterative processes, the approach that they suggest characterizes the American design consultancy IDEO's way of working. Their considerations result in the term 'artful making' for this way of managing processes.

Furthermore, Austin and Devin state that 'artful making' is not a new invention. On the contrary, artful making has been a way of working and behaving 'since the first hunting dance or primitive ritual'. Now, they argue, we have the possibility to return to artful making because knowledge work and new technology is enabling reduced costs during the processes of reconfiguration and exploration. However, artful making is not always the answer to managing the business, the

authors explain, and present a model specifying three situations where artful making is appropriate: when the cost of iteration is low, when there is a need for innovation and when reliable iterations are in place.

4.6.2. Reconnecting with employees' resourcefulness

In line with statements in Chapter 3, Austin and Devin argue that we need to invent a new type of management that is different from Taylorism, which drew a 'sharp (…) distinction' between two types of workers: blue-collar and white-collar workers, the latter forming a new class that became the 'backbone' of scientific management.

'By distinguishing between "working" and something else, the division of white from blue collars had the effect of dehumanizing the blue collars. The new scientific managers increasingly conceived of "workers" as material on which they could perform money-saving and profit increasing operations. In thinking this way, they lost access to the worker's skill, experience, and resourcefulness. As managers embraced and developed Taylors' ideas, they went awry.' (Austin & Devin, 2003, p. 75)

Instead of continuing to exploit workers as 'material', Austin and Devin argue that we need to reconnect with employees' resourcefulness, accept that employees are smarter than managers and thus manage our businesses differently through 'artful making', for instance by letting people work in parallel and iterate, although this may look chaotic and unstructured to an outside observer. They further argue that while the main focus during the age of industrialization was on the production of things, in today's information economy the focus is instead on experiences, on the interaction between things and customers. This further leads to the point that customers are a part of successful making as 'co-producers', which is why '[t]he artful maker never stops reconceiving the product because he or she includes an ever-changing customer as material and as part of the process' (ibid., p. 111).

'A play's director manages the *convergence* of vague ideas into less vague ideas of available materials into an emerging form. The rate of convergence is a primary concern. As the play-to-be moves toward performance, it inevitably takes on greater regularity, a persistent, increasingly recognizable shape. The actions of the emerging play become more and more similar from iteration to iteration.' (ibid., p 162)

Managing this process successfully requires striking a balance between the time spent on iterations and the time spent on rehearsals. If the process moves too fast, the actors will not be able to explore the many possibilities of their roles and collaboration, and if it proceeds too slowly, the play will not be ready for opening night. Another argument is that after an unknown number of iterations, the final (right) version will be obvious for everybody involved. When to stop the iteration processes can then be experienced as a collective decision

4.6.3. Four qualities of artful making

In conclusion, Austin and Devin outline four qualities of artful making: release, collaboration, ensemble and play. These are not independent but interdependent qualities, which the authors only conceptualize individually in order to describe and explain the concept of artful making. They point out that work that does not contain these qualities cannot be called artful making. The four qualities should be understood as follows:

Release

Despite the difference between artful making and industrial making, the former defined as iterative and sequential processes and the latter usually associated with control of production, 'release' too is about control. Release 'allows artful makers to gain access to original ideas and outrageous thoughts (...) [and] moves a person beyond vanity toward a new willingness to express strange, new ideas, to collaborate freely and thus discover a new range of responses to the work of others in the ensemble' (Austin & Devin, 2003, p. 169). Furthermore, artful making lets the individuals balance on 'their edges', act outside their comfort zone and rest in that discomfort this creates without responding to unpleasant emotions, and to differentiate between 'edge discomfort and injury pain'. A part of the ability to embrace balancing on the edge is the ability to focus 'attention' for the benefit of the end performance. Experiencing the quality of 'release', performers will collaborate, which is the second quality of artful making.

Collaboration

When collaborating performers – be it actors in a play or creators of a business plan – act they reconceive the existing instead of replicating it, which characterizes industrial making (mass

production). Instead of replicating and carrying out what Austin and Devin call 'the political technique of compromise' (ibid.), performers reconceive the issues they face and perceive collaborators' contributions as material, which they creatively combine with their own ideas and input to create 'new unpredictable ideas' (ibid.) and thus contribute to something bigger than each of them. In doing so, they perform an ensemble, the third quality of artful making.

Ensemble

An ensemble is a group of people working together in what Austin and Devin call a secure workspace, which has room for a trial-and-error approach. Failure creates insights, information and learnings, which in turn creates the basis for new initiatives and actions. The authors draw a parallel to the Toyota Production System, stating that

'When a worker stops the line and the team leader and others converge to help solve the problem, the group must be prepared to address predictable problems, and also to improvise solutions to problems no one has foreseen. If the team is well cast and has worked together for a while, they will work as an ensemble and be capable of amazing things. Their collaboration becomes, in the moment, an end in itself.' (Austin & Devin, 2003, p. 170)

An important point here is that ensemble 'doesn't appear magically as result of sentimental incantation' (ibid.) but is the result of collaborative people's hard work and made possible through 'release'. Furthermore, the product of the ensemble is the play – the fourth and last quality of artful making.

Play

A play is characterized by the process of making itself. This making process *is* the play. Moreover, the authors remind the reader that in the experience economy this is 'increasingly true for business products too' (ibid.). As an example of this they refer to car making, which has changed from an emphasis on the physical product – the car – to the total interaction between the maker and the customer, and which may furthermore be extended to a series of new cars for the same customer. They also advise businesses to redefine their products to include the interaction with the customer, because this interaction contributes to the customer's experience, which gradually changes over time. A play is thus both an experience for the customers and, simultaneously, the process of making. 'This emphasis on process clarifies the artful making shift away from rigid plans

and prescribed goals, toward deep preparation and improvised collaboration. The product of an artful making process develops during that process. It's a result, not a goal' (Austin & Devin, 2003, p. 171). The authors suggest artful making to be a way to reframe knowledge work and thus replace 'industrial making' as the definition of work, as if it were exclusively conceived to match a factory context.

Table 5. Overview of the concepts and meanings related to 'artful making'

Concepts	Meanings
Artful making	Understand managing 'not too narrow[ly]' and inspired by collaborative artists.
	The preindustrial iteration processes of reconfiguration and exploration (today's customization) in contrast to 'industrial making'.
	Not a new invention, cf. hunting dances and primitive rituals.
	Reconnecting with employees' resourcefulness.
	Continually reconceiving the product to match an ever-changing customer who is perceived as material and as a part of the process.
	Managing the process from vague ideas into less vague ones into emerging form.
Prerequisites for artful making	Low cost of iteration, a need for innovation and reliable iterations in place.
Artful	Derives from the theory and practice of collaborative art. Requires an artist-like attitude.
Making	Altering or combining materials into a form for a purpose.
Four qualities of artful making:	
Release	Facilitating individuals to balance on 'their edges' and act out of their comfort zone; focusing 'attention' for the benefit of the end performance.
Collaboration	Reconceiving the existing, perceiving collaborators' contributions as material and combining it with one's own ideas -> creating 'new unpredictable ideas'.
Ensemble	A group of people who work together in a secure workspace.
Play	The process of making itself, also true of business products, an experience for its customers *and* the process of the making.
Industrial making	Sequential processes; mass production

Concluding remarks

The purpose of Chapter 4 was to provide an understanding of the concept of design thinking in the management discourse, since I planned a deductive move following the initial inductive fieldwork. I reviewed the selected literature in four sections, from the understanding of the source of design thinking (Amacker, 2017; Hjelm, 2005; Kimbell, 2011; Rylander, 2009) over the emergence of the managerial aspects of the design (Cooper & Junginger, 2011). However, I found that this meeting between design and management was considered paradigmatically incommensurable (Johansson & Woodilla, 2008b, 2011), a finding that recurred when the concept of design was integrated into the newer concept of design thinking in the management discourse. Since this concept is also contained paradigmatically inconsistent I found it necessary to trace metatheoretical debates concerning the concept via Pragmatism, because Pragmatism covers the theoretical information of design practice and is integrated into my own theoretical position (OMS). In extension of the relationship between design practice and Pragmatism, in the last section of the chapter I turn to research that I find has succeeded in connecting what I see as the design activity, preindustrial artisanal work and a managerial approach to it (Austin & Devin, 2003). This is more in line with the theoretical position grounded in Pragmatism, such as my own position in OMS. In summary, the reviewed literature in Chapter 4 makes it difficult to take the concept of design thinking in the management discourse further, while I still find the activity itself and the managing of it, as proposed by Austin and Devin (2003), interesting.

Chapter 5. Karl Weick on managing as designing

In this chapter I turn to reviewing parts of the work of organizational scholar Karl Weick, who has been widely regarded within the field of social science since his first, pioneering publication in 1969. Of course, there are also critical views of his work. However, since one of the main focal points in the present project is that of design thinking in the management discourse, I will not engage in Weick's work in general but focus solely on what I see as his contribution to design and management. Thus, after a brief introduction to his work I go on to review his two pieces in the Boland and Collopy publication from 2004, which are of particular relevance to my study.

5.1. Introduction to Weick's work

In 1969, and again in 1995, Karl Weick acknowledged a question that has 'haunted' him throughout his professional life: 'How can I know what I think until I see what I say?' To Weick, the sentence is a recipe for 'sensemaking' (Weick, 1979, 1993b, 1995a, 2001, 2009; Weick, Sutcliffe, & Obstfeld, 2005). The quote represents a relational and processual perspective on being in the world, and in Weick's reference to it, it represents a fundamental turn in organization studies and the underlying ontology. Czarniawska offers an account of this in her reflections on Weick's concepts and writing style:

'Organization theory was (…) a theory not of action, but of a unit existing 'out there'. (…) The mainstream conceptual apparatus of today's organization theory was created in the 1950s in an attempt to apply systems theory to what used to be the object of administrative theory. "Organization" was formerly employed as a noun denoting a state of being organized (…)' (Czarniawska, 2005, p. 267).

This shift in the understanding of the organization, will be in focus in the following, in particular because I see Weick's writings on managing as designing as closely connected to his perspective[36] on sensemaking.

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[36] Whether Weick's writings on sensemaking in organizations can be called a theory or not is up to the individual researcher. See, for example, Maitlis and Christianson's (2014) literature review on sensemaking. Weick himself argues that his work offers *perspectives* on sensemaking rather than a sensemaking theory (Weick, 2017).

Weick is widely known for his process perspectives on organizational life (Bakken & Hernes, 2006; Czarniawska, 2005; Gartner, 2012; Steyaert, 2012) and has written a large body of literature on the topic, which was introduced to organization and management studies in 1969[37] and unfolded in his second publication, entitled *Sensemaking in Organizations* (1995). Since then, Weick has continued his work on organizational processes and sensemaking, which take place concurrently among individuals in small and large groups and in what we usually term 'organizations'. Expressed in Weick's own words 'sensemaking is about such things as placement of items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding, and patterning' (Weick, 1995a, p. 6). If this seems to be everything, then, Weick suggests that sensemaking is defined by what it is *not*, which include, for instance, interpretation, which he instead regards as a sensemaking component. Furthermore, he states that interpretation is usually described as focusing 'on some kind of text'; however, 'what sensemaking does is address how the text is constructed as well as how it is read. Sensemaking is about authoring as well as reading' (ibid. p. 7). Much more can be said about sensemaking, as it has branched out in many directions and appears, for instance, in the comprehensive literature review by Maitlis and Christianson (2014) 'Sensemaking in Organizations: Taking Stock and Moving Forward.'

Much of the current research project relies on the work of Karl Weick, who (along with other scholars, including Robert Cooper, Robert Chia and Barbara Czarniawska) has played a main role in the development of the process study of organizations (Steyaert, 2012). His seminal work, *The Social Psychology of Organizing* (1969/1979), introduced process thinking to organization studies, and his second book, *Sensemaking in Organizations* (1995), followed up on the study of organizational processes. As Steyaert states, since then, process theorists 'are oriented around sensemaking' which is 'an ongoing process' (Steyaert, 2012, p. 151).

Organizational scholars referring to Weick's seminal work often simultaneously mention the slightly identical book published only three years earlier – *The Social Psychology of Organizations*

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[37] Weick introduced process perspectives to organization studies in *The Social Psychology of Organizing* in 1969. The second edition of the book, which was published 10 years later, is the one I refer to here.

(Katz & Kahn, 1966). Instead of referring to the organization through a gerund (organizing), as Weick does, they refer to the organization as a stable unit through the noun 'organization'. It lies outside the scope of this dissertation to cover sensemaking fully; however, it offers an important perspective on organizations, to which I return continuously when needed, both in this chapter and in the following chapters. The process approach to organization studies was new when Weick published *The Social Psychology of Organizing* (1969), where, as stated by Czarniawska (2005) above, the typical way of understanding organizations (and organizational design) was via the images of boxes connected through lines indicating units in a hierarchy. In his effort to develop an understanding of organizations, Weick has persistently confronted a static understanding, as demonstrated, for instance, in 'Organizational redesign as improvisation' (Weick, 1993a) and 'Organization design: Organizations as self-designing systems' (Weick, 1977). He thus understands design the same way as mainstream management research, towards which he positions himself by deconstructing the static understanding of the organization. We can only talk about organizing. His profound impact on organization studies, is for example, referenced by, Tsoukas and Chia (2011):

'Weick's ontological move from organizations to organizing has revealed a hitherto almost invisible (in theoretical terms) world: a world of constrained yet evolving interactions, feedback loops, relationships and double interacts. He has brought to our attention the circularity that characterizes much of human action: individuals and organizations partly grapple with problems of their own making. Rejecting the entitarian image underlying the ontology of traditional OT [organizational theory], Weick has enabled scholars and practitioners alike to pay closer attention to questions of novelty, process and agency' (Tsoukas & Chia, 2011, p. 8).

Tsoukas and Chia point to this invisible world of interactions for which Weick has created a language and thus made it possible to relate to the 'novelty, process and agency'. It is both the deconstruction of the understanding of the organization and the language describing interactions among agents related to the managerial aspects of design and innovation processes that make Karl Weick's work interesting from an innovation perspective.

First, in spite of the decade that has passed since 2004, when *Managing as Designing (2004)* was published, and Weick entered the debate on design thinking in the management discourse,[38] to my knowledge, no research has been published that reflects in depth on Weick's two contributions to that publication. The present chapter is thus an attempt to do that.

Second, the research community focusing on design and management has been introduced to Weick's perspectives through the workshop at Case Western (and the following publication); hence researchers in this field will be aware of his contributions as an organizational scholar. I thus consider that my treatment of Weick's work as well known in general makes good sense. His introduction of the concept of *thrownness* (2004a) has, for example, been integrated into Boland and Collopy's suggestion for 'a design vocabulary for management' in *Managing as designing (2004)* in which their aim is to support managers with a design vocabulary aiming at supporting the managerial practice with a new relevant vocabulary distilled out of design practice.

Third, Weick has studied accidents and disasters for many years, and through his research in a variety of fields he has demonstrated recurrent patterns of behaviour that lead to tragedies (accidents or catastrophic outcomes within medicine, American wildfires, air traffic and NASA) (Orton & Weick, 1990; Weick, 1993b, 2003b; Weick & Sutcliffe, 2001).[39] In relation to business disruptions, which was debated in my case organization and described in the innovation literature (Chapter 3) (Biedenbach & Söderholm, 2008; Christensen, 2000; Christensen & Rosenbloom, 1995; D'Aveni, 1995; McGrath & Kim, 2014), firms' diminished lifespan (Biedenbach & Söderholm, 2008; McGrath & Kim, 2014), and resistance to the new (Bettis & Prahalad, 1995; Hjorth, 2016; Prahalad, 2004; Sull, 1999), Weick's description of how disasters unfold offers a processual and sensemaking perspective on the same phenomenon. His work is thus relevant in relation to the above-mentioned business circumstances.

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[38] Weick does not use the term 'design thinking' himself, but of course, when he uses the concept of design he taps into the design debate without, however, fully clarifying the difference between his own understanding of the concept and Boland's and Collopy's understanding.

[39] These are just a few examples. Additionally, since he coined it, Weick's concept of 'cosmology episode' has been subject to research focusing on the details of the concept and how it has branched out into other fields, including, for example, resilience (Orton & O'Grady, 2016).

Throughout his writings, Weick both describes sensemaking processes during disasters and disruption *and* possible actions and behaviour to be taken by managers and individuals in order to avoid the disruptive incidents – be it in everyday business procedures or management behaviour. Finally, a fourth argument for choosing Weick's work in the project, as mentioned earlier, is its connective capacity across ontologies. Although I engaged in debates about paradigms earlier in this part of the dissertation, I will here refrain from positioning Weick's work in, for example, Burrell and Morgan's (1979) paradigmatic grid. I find that such a move would be too reductive, given that Weick has reflected on ontology and paradigms for decades and contributed to the paradigm debates. Furthermore, in *Sensemaking in Organizations* (1995) Weick discusses 'ontological oscillation' and questions whether we, in studying sensemaking, can possibly be 'ontological purists', given that we as humans have 'multiple identities and deal with multiple realities' (Weick, 1995a, pp. 34–35); additionally:

'If people have multiple identities and deal with multiple realities, why should we expect them to be ontological purists? To do so is to limit their capability for sensemaking. More likely is the possibility that over time, people will act like interpretivists, functionalists, radical humanists, and radical structuralists' (Weick, 1995a, p. 35).

Weick thus positions himself against Burrell and Morgan's (1979) paradigmatic mapping and division of research. Nevertheless, cf. the paradigm discussion, from my point of view paradigms are still important in cross-disciplinary research in order to strengthen the quality of the research work.

In the following I review Weick's two contributions to *Managing as designing* (Weick, 2004a, 2004b) and outline the two specific design processes and the involved concepts. We need to understand these concepts in order to explore how Weick's work can contribute to a perspective on design thinking in the management discourse. The following concepts are described first by following the sequence in the two pieces in *Managing as designing* (Weick, 2004a, 2004b) and next by drawing on the famous Mann Gulch piece (Weick, 1993b). At first glance, it might seem difficult to establish a connection between design and the Mann Gulch disaster; however, in the present context, and bearing in mind the discussions about disruption in Chapter 3 and the aim of inquiring into change and innovation *today* as underpinned initially in Chapter 1 due to the

increased industrial competition, it makes good sense, as I will show. The two topics describe, on the one hand, the reconstructing process – the positive process of building and creating – and, on the other, the deconstructing process.

5.2. Two concrete design processes

The first of the two chapters in the Boland and Collopy publication 'Rethinking Organizational Design' (Weick, 2004b) revolves around two concrete design processes: the world-known architect Frank Gehry's way of working when he designed the Lewis Building at Weatherhead School of Management, Case Western Reserve University, and when he designed his own private home in 1978; and Dee Hock's design process when he and collaborators developed the VISA Credit Card in the late 1970s. In the other chapter, 'Designing for thrownness' (Weick, 2004a), Weick describes what he sees as the designer's work as mitigating our experience of being thrown into the world through what Weick terms *thrownness* – a concept coined by the German philosopher Martin Heidegger, which he introduced into his sensemaking perspectives as early as 1995 (Weick, 1995a, p. 44). The two cases differ from one another. While the Gehry case shows the process of designing physical artefacts (such as houses), Hock's case depicts organizational interactions as organizing. In the following, I review both chapters in order to create an overview of Weick's contribution to the field.

Looking at Gehry's work, Weick describes the architect's design process for his first private home, built in 1978. As Weick's sees it, Gehry removed almost every mark signalling a common cultural understanding of a house during the process. Weick points to Gehry's approach to his work as actions moving 'backward, away from reified notions of 'house' toward forms and conceptions stripped of conventional relationships and names' (Weick, 2004b, p. 46). From Weick's point of view, Gehry redesigned and rebuilt an old house by applying his own ideas about how people should live in their houses. Weick (2004b) stresses that during the process, Gehry explored how much of the original house he could remove before one could not see a house anymore. A visitor had, for instance, asked him, if the 'peeling paint was intentional', to which he remarked that '[t]hat's what was strong about it. You were never sure whether I meant it or not. It looked in

process. There was something magic about the house. And I knew that the thing a lot of people hated or laughed at was the magic' (1999, p. 57) (Weick, 2004b, p. 46). In Weick's view, this shows

'designing as a deliberate effort to question reifications, a deliberate effort to restore unnamed zones of focus and a deliberate effort to invite redifferentiation. I labelled this reverse progression as "decisive grounding" for a good reason. To ground anything is to cut through accumulated labels, and schemas, and stereotypes, and to move back toward original, natural, coherent wholes' (ibid.).

Weick further draws a parallel to Dee Hock's and his collaborators' design of the global VISA Credit Card in the late 1970s. What Gehry did to his house – stripped it of solid concepts – Hock did to the international bank community, to the network around the new, cross-national payment system. In both Gehry's process and the VISA case, Weick identifies the deconstruction process *before* reconstructing the new house and the transnational payment solution, meaning the deconstruction of physical artefacts such as houses or places to teach, learn and work (at Case Western Reserve University) as well as immaterial ideas such as those of a banking system. He does not, however, articulate the deconstructive behaviour as 'deconstruction'. This is my analysis of what is going on.

The Visa Card was invented by Bank of America in 1958 for national American payment transactions and turned in to the global BankAmericard in 1978. Dee Hock describes the process in his book *The Birth of the Chaordic Age* (1999), which Weick reads as a design process; the story goes that after two years of negotiations, the group of bank representatives only had a small number of challenges left to sort out, and Hock aimed at finalizing the agreement about the new international credit card. He did not succeed, however, despite his best efforts. Then, in a new attempt to resolve the final outstanding issues, he invited all the members of the organizing committee to dinner, and at the end of this social event, he had arranged for each member of the committee to receive a present. They unpacked the gift and found a set of golden cuff links, each containing half a globe with a stamped phrase – 'the will to succeed' and 'the grace to compromise'. After a while he asked the committee to gather next day, when they were to discontinue the effort to develop the common credit card, since they obviously could not reach a consensus. He asked them to show up after considering whether they would wear the cuff links

in the future to be reminded of how they succeeded and had the grace to compromise – or as reminder of the opposite.

The committee members were quiet for a while, Weick writes, quoting Dee Hock (1999). Then one of the members 'exploded, you miserable bastard! The room erupted in laughter' (Weick, 2004b, p. 38). The story got a happy ending thanks to Hock's extraordinary and artful approach. The next morning, everybody wore the cuff links, the final issues were solved, and the global VISA Credit Card was realized. As Weick sees the constraints to realizing Hock's dream of the international credit card, the powerful banking industry had applied their own names, concepts, labels and reifications on the original purposes and principles of making payment transactions smooth and convenient. They defined a certain reality and had thus seized control over the less powerful and taken advantage of their power. Weick interprets Hock's tactic as an attack on powerful structures in banking and a successful alternative design of 'a community of semi-autonomous equals who now collectively manage global transactions that involve $ 1.5 trillion a year' (ibid., 46–47). From my perspective, Hock thus also deconstructed the established ideas about the banking industry before he invited the collaborators to reconstruct a new collective understanding of collaboration within their common industry.

5.2.1. The microcosm of design

Focusing on the process of establishing the VISA Credit Card, Weick concludes that the case shows a 'microcosm of design' and lines up seven reasons why. One regards 1) social relations, because as he suggests, designing is limited by 2) complex relationships, as illustrated in the VISA case. The many people involved in the project complicated the goal at reaching a final and joint solution. Furthermore, designing is also about 3) agreeing, which in turn is about ambiguity, different points of view, conflicts and desire for reconciliation. Further, it is about 4) identities and structures reified into solidity; 5) about making do, improvising, patching a bricolage; 6) about flow, motion, dynamics; 7) about feeling, intensity, passion, cunning, exploding. 'It is about heart as much as head' (ibid., p. 39). To overcome the kind of situations Hock faced before the final dinner requires 'social pressure or power or attractive alternatives' (ibid., p. 38). In order to succeed with his grand project, Hock was forced to put pressure on the group of bank

representatives and thus presented them with two alternatives, one of them more attractive than the other, based on 'the will to succeed' and 'the grace to compromise'.

Weick assesses the constraints as the committee members' understanding of themselves deriving from their identity as employees of independent banks. As members of the international committee for establishing the credit card system they had actually the possibility to act differently, as Weick points out. However, they only chose to act collaboratively and constructively after heavy pressure from Dee Hock and his manoeuvre with the golden cuff links as a tangible (cuff links) and simplified manifestation and a creative answer to complexity. The bank representatives clung to their known social structure, which Weick sees as an example of *dangerous design*. In Weick's interpretation of the story about Hock and the VISA Card, Hock saw another possible future due to his ability to look outside the existing concepts of the world, where he found a dream for which he fought. In the story we follow Hock's struggle for the new, for his dream of making sense of the new and realizing that the present situation (bank customers struggling with time-consuming and, to some extent, bureaucratic transnational money transfers) had become obsolete.

Weick's purpose of describing the two cases is to show how he sees the designing manager and demonstrate that it is possible to look beyond the fixed and taken-for-granted world that we are all too familiar with. Now, before I dig in to the details of Weick's version of designing, creating compounded abstraction, dealing with shareability constraints, designing the charm of the skeleton, designing for thrownness and distinguishing between handrails to the new and too-fixed design, I will briefly review Weick's perspective on the traditional view on organizational design, which I also touched upon in the opening of this part of the dissertation.

5.3. Recasting organizational design

Weick, quoting Butler (1995, p. 384), opposes to the traditional understanding of organizational design as 'the choosing of structures and associated managerial processes to enable an organization to operate effectively' (Weick, 2004b, p. 40). To Weick, this definition inserts obstacles and limits into our understanding, because they

'restrict attention to such features as unchanging elements, the presumption of a central designer, alignment with formal authority, the organization as a material entity, details and constraint, the prescribed rather than the emergent, and choices rather than construction. These are all issues we put back into play, if we want to reanimate the topic of design' (ibid.).

Following Weick, we do not need 'managerial expertise' to handle 'command-control systems'. Instead, as Dee Hock puts it, we need 'to understand and coordinate viability, complexity, and effectiveness' (ibid., p. 47), and to that end, as I understand Weick, managers have to organize for continuous deconstruction and reconstruction, which will be 'best achieved if design is recast as designing that uses transient constructs, bricolage, and improvisation' (ibid.). In this context, Weick refers to design as the classical management literature's conception of the organization as outlined above. The way to achieve this 'recasting' is through what he terms 1) 'compounded abstraction', 2) 'shareability constraint' and 3) 'the charm of the skeleton' (ibid.). All these concepts reveals a rich understanding of organizational life – as Tsoukas and Chia consider in the quote above 'a hitherto almost invisible (in theoretical terms) world: a world of constrained yet evolving interactions, feedback loops, relationships and double interacts (…)' (Tsoukas & Chia, 2011, p. 8). This 'almost invisible world' has not, to my knowledge, been articulated by scholars in the context of the managerial aspects of design, which points to possible new insights into this cross-disciplinary field.

5.3.1. Compounded abstractions

The phrase 'compounded abstraction' expresses a development of concepts beginning with perceived stimuli (also termed 'details'), which are gradually developed as we move through sensemaking processes. Weick refers to the artist Robert Irwin, who coined the phrase and also described the compounding process itself. He divides it into six stages: *perception* (undifferentiated sensations are perceived synaesthesia); *conception* (the second stage, in which perceptions from the first stage gradually begin to emerge into meaning, 'where people isolate unnamed zones of focus' (ibid.)); *form* (the third stage where the zones from the second stage are gradually named, little by little). In the fourth stage, *formful*, the named things are deployed relationally and arranged according to dimensions, such as 'hot/cool, loud/soft, up/down' (Weick, 2004b, p. 41).

In these first four stages, the process is characterized by some degree 'of fluidity (…) and some possibility of reversing and redoing and relabelling' (ibid) still exists. However, in the two next stages people will begin to act *as if* they perceive the extrinsic and imposed labels as 'immanent and discovered.' In the fifth stage, *formal,* Irwin sees 'patterns of relations' beginning to be 'reified into the more formal relationship of superior/subordinate, master/slave' (ibid.). Finally, in the sixth stage, *formalize*, we now *believe* in the extrinsic and imposed reifications. Turned into taken-for-granted fixtures, they now prescribe behaviour, and we organize our activities around those fixtures. In a later publication (Weick, 2010), the reversed reification process is described as noun-making or as transforming 'airy nothing' into nouns. In my interpretation, Weick furthermore describes the deconstruction of the familiar:[40, 41]

'Furthermore, when nouns and noun-making processes dissolve, they may do so with a reverse progression: first the name goes, then the location, the shape, the form, and finally the imagining itself. Imagination bodies forth enacted sense which eventually reverts back to airy nothing' (Weick, 2010, p. 105).

The process of transforming the original perceptions into reified taken-for-granted concepts is important to understand, because it will offer a possible understanding of the occurrence of the cosmology episodes or disruption processes. The six-phase process moves from perceptions to formalizations away from details, which Weick sees as concrete stimuli, while the reifications and labels, from his perspective, are abstractions or symbols of those details. Importantly, Weick states that we should understand 'details' as configurations or gestalts instead of 'elements' (Weick, 2004b, p. 50).[42] This means that the details contain much more information than we are able to transform into communicable language, which is why they are abstracted into reifications and labels. However, in this process we finally believe in the labels and reifications as real details.

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[40] In using the expression 'noun-making' Weick refers to Hernes and Bakken (2006).
[41] The expression 'airy nothing' stems from Shakespeare's play *A Midsummer Night's Dream, in which Theseus says: '(…)* And as imagination bodies forth, The forms of the things unknown, the poet's pen, Turns them to shapes and gives to airy nothing, A local habitation and a name' (Weick, 2011, p. 8).
[42] Here Weick refers to note 7.

Moreover, the more concrete our anticipation of the world gets, the more foreclosed the options for design become. Thus, Weick turns our perception or idea of reality upside down. Usually, we would propose abstractions to be the undifferentiated perceptions, and the detailed to be the concrete. According to Weick (and Irwin), however, this anticipation emerges due to Irwin's six phases of compounded abstraction that collapse sign and symbol – the latter understood as the abstract reified concept.

'When perceptions become formal, formalized and reified in conceptions, people treat their labeled conceptual summaries as if they were perceptual details. (…) They forget that the map is not the territory and instead, treat the map as the territory. (…) If we focus attention away from design toward designing we begin to drive a wedge between maps and territories)' (Weick, 2004b, p. 50).

This means that we need to differ between what constructs our environment and how we articulate that environment. In conclusion his discussion about this process of compounded abstraction Weick argues that managing as designing revolves, in part, around 'the monitoring, containing and reversing of compounded abstraction' (ibid., p. 41),[43] which is also to say that the designer deconstructs the familiar. As touched upon in the introduction to this part of the dissertation, James noted that our concepts falsify as well as omit. Weick is thus in line with James in that respect, which is not accidentally, since James is the first of 55 persons on Weick's list of people who have inspired his work on sensemaking (Weick, 1995a, p. 65).

Weick views the concept of 'managing as designing' as the individual manager's ability to return to the original perceptions, details, figurations, gestalts undoing abstractions and from here compound new abstractions. The undoing of abstractions requires 'situational awareness' creating access to stimuli in our environment. Moreover, Weick considers the questioning of labels or the 'taking labels more lightly' as 'a crucial moment in designing' (Weick, 2004b, p. 41). These points about handling compounded abstraction through designing by *questioning* what he also calls 'labeled conceptual summaries' are important, when the focus is change and innovation, because the questioning, in my viewpoint, will feed a potential dissolution of our taken-for-

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[43] Weick's image of maps and territories stems from his particular piece 'Substitutes for Strategy' (Weick, 2001) in which he criticizes the idea of strategy and replaces it with making sense of our constantly changing surroundings, thus providing a link to his sensemaking perspectives.

granted perspective of the world. As we will see later, this questioning is also articulated as tool-dropping. However, as I will argue, it is slightly different from what often is stressed as questioning assumptions as a part of the design work.

5.3.2. Shareability constraint

Next, Weick connects the ideas of compounded abstraction to the complexity of organizational life through the concept of a 'shareability constraint.' With this, he refers to the social psychologist Reuben Baron, who supports Irwin's version of the process of transforming perceptions through six stages until the final sixth formalized stage. Here the terminology is 'perceptually based knowledge' versus 'categorically based knowledge' due to the need for coordination of perspectives of our world. In this process, we will see each other as 'roles and stereotypes (…) Concepts become simpler and more general in the interest of transmission' (Weick, 2004b, p. 42).

The price for the coordination is a loss of perceived details, expressed through the reversal of a phrase formulated by Irwin: '[P]eople who coordinate tend to remember the name of the thing seen' instead of 'seeing is forgetting the name of the thing seen' (ibid.), in other words, when we forget the term of things in front of us, which has run through the process of compounding abstraction, we will strengthen our ability to see anew, we will get access to perceive new details. Additionally, this means that when people are too coordinated, the risk is that they might be caught unprepared '[i]f crucial events occur that are beyond the reach of labels that smooth social life, then coordinated people will be the last to know about these events' (ibid.).

Under such circumstances, we can speak of 'dangerous design' smoothing social life by causing us to rely on shortcut perceptions, which we normalize into too-fixed labels, concepts, reifications – respectively, Irwin's 'formalized' stage and Baron's categorically based knowledge. This leads to our potential entrapment in the taken-for-granted, a disadvantage, Weick adds, because the highly coordinated groups are the last to discover that their labels entrap them 'in out-dated practices' (ibid.). Cf. Chapter 4, this smoothness of social life might be similar to what Dewey describes as habits. The organizing activities have become out-dated and turned into the highly

coordinated routine activities 'smoothing social life' (Weick, 2004b, p. 42). The highly coordinated groups will now be the last to register that organizing around the old invention might be meaningless and obsolescent.

In a design perspective, this entrapment of the highly coordinated groups is challenging and requires 'perceptually based knowledge' to be mixed into the 'schema-driven coordinated world' (Weick, 2004b, p. 42). A combination of people who have, respectively, perceptually based knowledge and those who have schema-driven knowledge will limit entrapments of the too-fixed labels and so forth, as Weick puts it. The advice to the schema-driven, highly coordinated groups is to achieve a limited need for coordination.[44] Such a relaxed approach to coordination is also referred to as 'the charm of the skeleton'.

5.3.3. The charm of the skeleton

According to Weick, design should not be too finished; instead it should be held loosely in order to retain vitality. Whether a designer shapes organizations or physical structures, 'the trick is to add density to a skeleton while retaining the vigor, quirks, and visual charm of that skeleton' (Weick, 2004b, p. 43). Also, in his perspective, this 'vigor' is best achieved if the design is unfinished and incomplete, as for example Gehry's first house. Here, the walls being raw and unfinished and the Chinese fish painting consisting only of a single brush stroke meant that people doubted what they saw. This in turn meant that they did not know exactly how to label it, which is precisely the point about holding labels lightly – making the audience – and I would add: employees and collaborators – doubt and then decide for themselves what they see. Accentuating the organizational design, Weick refers to Dee Hock saying that having put purpose, principles and people together, this was all he could do; for the rest one had to rely on people's 'self-organizing', whereby '[h]e underspecifies the structure and allows others to add density' (ibid., 44). The charm of the skeleton should thus be understood as organizing in such a way that makes room for people to interact and make sense by themselves without interference from the manager.

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[44] 'Limited need for coordination' is the same phenomenon Weick (and Orton) work with in other connections, also known as 'loosely coupled systems', which have a high degree of self-organizing among the involved people or employees (Orton & Weick, 1990; Weick, 1995a).

5.3.4. Thrownness and handrails

Weick subscribes to James's philosophy that consciousness flows, and that perceptions and stimuli of all kinds face us concurrently. To describe this flow of perceptions and stimuli he refers to the term 'thrownness' – a concept developed by the German philosopher Martin Heidegger (1889–1976).[45] Thrownness is a translation from the German 'Geworfenheit' (a noun transformed from the verb 'werfen', to throw, hence Geworfenheit/thrownness, to be thrown). Weick dedicates a whole chapter the concept in his piece *Designing for thrownness* (2004), and is briefly mentioned here because, as he sees it, designers have the capability to mitigate the consequences of thrownness through the creation of 'handrails', a concept that he borrows from Frank Gehry. The term refers to designers' expertise in making sense of the new by guiding the users from the unfamiliar to a platform of the familiar. I return to the idea of handrails later and here focus on what it means to be thrown.

Weick, quoting Winograd and Flores (1986), lines up six properties of thrownness. 1) We are forced to act, and even when we do nothing we act, which has consequences. 2) Stopping and reflecting is not an option, '[y]ou are thrown on your intuitions and have to deal with whatever comes up when it comes up' (ibid., 75). 3) Prediction of future events is excluded, meaning that rational planning is 'not much help' (ibid.). 4) A stable representation of a situation is an illusion. 5) An objective or right interpretation of a situation does not exist as '[e]very representation is an interpretation'. (ibid.) And finally, 6) 'Language is action' and thus describing something will be the same as to do. According to Weick, for example, the circumstances for a commander in a wildfire[46] is quite similar to that of a chairperson, a designer or a client.

'In situations such as these, designing unfolds in a world that is already interpreted where people are already acting, where options are constrained, where control is minimal, and where things and options already matter for reasons that are taken-for-granted. These taken-for-granted reasons are lost in history and hard to retrieve, if retrieval was even an issue. The question '[w]hy

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[45] In *Sensemaking in Organizations* (1995) Weick refers to Heidegger by paraphrasing Winograd and Flores (1986), who described 'situations of thrownness in terms of six different propositions' (Weick, 1995a, p. 44). Moreover, Weick reflects on his work in a paper from 1999: 'That's moving: Theories that matter', *Journal of Management Inquiries 8*(2), 134–142. In the 2004 chapter, he assumes that the reader knows Heidegger. The original source (Winograd and Flores) of these six properties of how it feels to be thrown has receded into the background, however, in the 2004 explanation of thrownness.

[46] Weick often refers to wildfires, especially the one in Mann Gulch, as mentioned earlier.

are we doing this' seldom comes up in the mood of thrownness because acting with what is at hand is primary and detached reflection secondary' (ibid., 76).

To Weick, the human condition involves being perpetually faced with thrownness, which in his perspective makes us depend on designers having the power to modify this experience; since we are forever subjected to thrownness, the handrails created through design hold significant importance to us. Weick refers to Frank Gehry, who uses the concept of 'handrail' as a metaphor for the relationship between the user and the new in describing the impact of his design: 'Another way to describe support [of good design, which reduces the feeling of thrownness] is in terms of what Frank Gehry calls "handrails"'. Before illuminating the meaning of 'handrails', I will just briefly account for why I will *not* explore the concept of thrownness further despite our immediate understanding of Weick's intention for describing our fundamentally human to cope with the eternally changing surroundings and unknown becomings.

First, I find that the reference to James's idea of pure duration, flow and cognition is sufficient for us to understand why we need handrails to the unknown. The description itself, without referring to what it means to be thrown, seems to me to be sufficient. Furthermore, for example, following the reading of Heidegger by the American philosopher Katherine Withy (2014), I doubt that the concept fits Weick's process perspective, since the word 'thrownness' simultaneously implies a (static) place from where we are thrown, as we are moved from one (static) place to another. '(...) the claim is (...) that we are thrown *into* something delivered over to something, given over to something from which we have to start and with which we must deal' (Withy, 2014, p. 62). Withy wonders, if this implies a starting point, and if this seems to be a determination and a constraint, the question is 'what is this finitude?' (ibid.).

I have not studied Heidegger and can thus not assess whether thrownness implies a finitude or confirms James's idea of 'pure duration', which Weick also relies his work on. His understanding of Heidegger's concept of thrownness goes through Winograd and Flores *(Understanding Computers and Cognition (1986)),* who did not write their book about computers and cognition on a background of process philosophy but on the basis of *cognition* and *phenomenology.* Hence, taking over a concept developed in one context and using it in another with different purposes

might not necessarily match Weick's own writings on organization, process and sensemaking.[47] As the aim of this project to examine the practices of organizing for innovation, going forward I will exclude the concept of thrownness. This is not to say that I do not find the feelings and experience it describes relevant; in fact, quite the contrary.

5.3.5. Handrails and dangerous design

Creating handrails contains an inherent risk for the new that the handrail guides to become too fixed and thus becoming what Weick (2004b) terms 'dangerous design'. Designers create 'handrails' for users as a wayfinding aid in the journey to the new, as a guide to a new platform of meaning. In this phase, what he calls 'zones, forms, perceptions and relations' are explored. In other words, handrails can provide a smooth transition to the new, cover the gap between the known and the new. Handrails are important; if they are too thin or invisible, or if people, for some other reason, cannot follow the handrail, they might miss the new, stay away from it, refrain from organizing around it and so forth. Following Weick's argument about the handrails, it seems we cannot talk about radical innovation, since every new vision, dream and product stems from a known platform of meaning, from where the sensemaker moves on to new improvised constructions of the world, building on current knowledge that is put together in a new way in a sort of a bricolage. The above-described perspective on managing as designing summarize Weick's explicit reflections on designing and the work of the designer, which I address critically later. In the following I proceed to a part of his work that I find relevant for the managerial aspects of innovation.

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[47] A remark to this is that one important condition for understanding Weick's texts is to comprehend his somewhat 'fuzzy' style of writing as a deliberate effort to avoid making his points crystal clear in order to encourage the reader to also read between the lines, so to speak. Naturally, this fuzziness adds to the challenge of reading his texts. We can read them over and over again and still have the feeling that we have not quite understood the many words with potentially different meanings from the ones we are used to. Hammer and Høpner (2015) support that interpretation. They state that '[s]ometimes we think that we finally have a good grip of his theories and see everything in a fresh light, only later, nevertheless, to be surprised and perhaps question some of his arguments' (Hammer & Høpner, 2014, p. 13) (my translation). I think however, that there is a limit for using other authors' concepts in one's own context, and I find that using 'thrownness' without a deeper engagement would be going too far.

5.4. From cues to unexpected events

One of Weick's classical texts on change and organizing is 'The collapse of sensemaking in organizations: The Mann Gulch disaster' (1993). The article deals with American smokejumpers' battle with a wildfire in the American state of Montana in 1949, where 13 out of smokejumpers were trapped and killed in the fire. Through the tragic story Weick describes the process of sensemaking and specifically the *loss* of sensemaking among the smokejumpers when the fire evolved unexpectedly, which in his view led to the tragedy. When they suddenly realized that the fire had grown to a degree that they were not able to fight it,[48] they experienced what he calls a 'collapse of sensemaking' followed by a 'cosmology episode', the final disruption of the whole project: extinguishing the fire and the fatal outcome. By this expression he means that the smokejumpers were no longer able to make sense of what they experienced during the fire when it suddenly reached an overwhelming and deadly level, and they were, furthermore, split up as a group and acted like independent, fleeing individuals.

Weick has several observations on why this happened. One is that the smokejumpers were caught by the fire as a consequence of a message on their way to the site, which expressed an interpretation of the characteristic of the fire they were to put out. The story goes that they on their way to the site in a C47 transport before they parachuted into the gulch, the 'spotters' on the plane told them that the fire seemed to be 'a 10:00 fire', code for the assumption that they would most likely be able to extinguish it before 10:00 the next morning. This message (and further details) made it difficult for the smokejumpers to make sense of their situation when the fire suddenly gained power. Instead, their reaction was confusion followed by panic, which made them flee up hill. Tragically, they could not reach the ridge at the top of the 76-degree slope in time, and they were trapped in the flames.

Weick's text about the disaster in Mann Gulch 1949 (Weick, 1993b) is rich on details about sensemaking and interrelated actions in groups. It has a certain position in his work on sensemaking as one of several articles analysing accidents and disasters, as mentioned above,

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[48] Weick interprets the situation on the background of the book *Young Men and Fire* (Maclean, 1992) published a year before he published his Mann Gulch piece.

and, importantly, in his own words, disasters such as the Mann Gulch fire are not that different from disorganization and crashes in organizations in general, which is why they are interesting in this context of disruption, management and innovation:

'The recipe for disorganization in Mann Gulch is not all that rare in everyday life. The recipe reads, thrust people into unfamiliar roles, leave some key roles unfilled, make the task more ambiguous, discredit the role system, and make all of these changes in a context in which small events can combine into something monstrous. Faced with similar conditions, organizations that seem much sturdier may also come crashing down (Miller, 1990; Miles and Snow, 1992), much like Icarus who overreached his competence as he flew toward the sun and also perished because of fire' (Weick, 1993b, p. 638).

Here, though, I will concentrate on three concepts that describe the social processes during the development of disruption. From an experience of stability (when the smokejumpers landed in the gulch and expected they were about to fight a 10:00 fire) over the confusion about the unexpected development of the situation and lack of understanding of it to the final vu jà dé, as he puts it, turning dé jà vu 180 degrees around. This means 'I have never been here before', and nothing in the universe fits together anymore. Although this chapter is dedicated to Weick's perspectives on 'managing as designing', we need a brief introduction to three concepts from the Mann Gulch case, because they play a role in the cases about Hock and Gehry, which he draws on in his discussion of design and innovation, and which I also draw on in the following analysis of the empirical material. The concepts are 'moments of confusion', 'collapse of sensemaking' and 'cosmology episode'.

5.4.1. Moments of confusion

Cues might create confusion for people engaged in concrete projects, which in Weick's understanding means people who are engaged in their daily life at work or in their personal life. People are always engaged in projects, which constitutes their centre of awareness and engagement, while cues are signals from our context.

'Under conditions of high arousals occasioned by interruptions, attention is deployed towards that which is perceived as psychologically central and away from that which is perceived as peripherical (Mandler, 1984, 256). That could prove troublesome for sensemaking. Recall that sensemaking is about context. Wholes and cues, documents and meanings, figures and grounds, periphery and center, all define one another' (Weick, 1995a, p. 104).

When cues do not fit our expectations, they are either ignored or create confusion. In the case of Mann Gulch, the smokejumpers wondered, for example, why some of their crew members were taking pictures of the fire, while they themselves felt they were facing a serious situation. But as the others took pictures, and, furthermore, the commander and one other firefighter sat down to have lunch, they concluded the situation really could not be that serious, as Weick's interpretation goes. In this case, the context is the intensely increasing fire, which impacted the senses of the crew; however, they ignored it (but were confused) as the commander and the most experienced smokejumper did not react to what they felt, but instead focused on the initial project – extinguishing a 10:00 fire. However, closing the eyes to what is going on in the periphery or, as Weick puts it, 'to lose the periphery is to lose the context for the center' (ibid.). Additionally, 'if cues in the periphery were crucial contextual cues for the center, then the loss of those peripheral cues may mean that the person doing the project gets better at performing something that now makes no sense to continue performing' (Weick, 1995a, pp. 104–105).

Later, however, the commander did react to what he perceived as another cue: the fire jumping across the gulch close to the group of smokejumpers. Now he realized that the context had changed. Unfortunately, this turned out to be too late, in part because he was not able to communicate sufficiently well with the crew, who did not understand that their expectation (the 10:00 fire) was violated. In the 2004b piece, Weick, in an important note – the last one (25) – mentions the expression 'moments of confusion' in referring to his story of the horrible events in Mann Gulch as the starting point of the disaster that led to a 'cosmology episode'. The note refers to a paragraph in the text saying:

'In a true upending of organizational design we find ourselves engaged, not in uncertainty absorption but in uncertainty infusion. We give up clarity and take on confusion, we give up anticipation and take on resilience' (Weick, 2004b, p. 48).

The following note 25 accompanying the paragraph reads, 'This circumstance resembles what has been described as "cosmology episode" (Weick, 1993), suggesting that a moment of confusion can lead to a failure as at Mann Gulch or as a success as at VISA' (ibid., p. 52). The note condenses both the significance of cues, which in this context, and in my interpretation, are referred to as

'moments of confusion', and the fact that a 'cosmology episode' might as well be interpreted as positive, although much of Weick's authorship in general revolves around the negative consequence of a variety of accidents. Hence, in this note, many of his sensemaking perspectives are condensed into a single sentence, which reads something like, *be sensitive to the context (cues), or you might lose sight of the meaning of your life (right now) and be unable to avoid a cosmology episode.*

The latter should be read as disasters as well as successful accomplishments like the one in the Hock case but also in small cases, such as an academic expecting a rejection of a paper submitted to a journal and then surprisingly having it immediately accepted instead of either receiving a rejection or being forced to subject the paper to several subsequent revisions. This example, too, would constitute a positive 'cosmology episode' (Weick, 1995). I have not seen the expression 'moments of confusion' elsewhere in Weick's work. In my interpretation of note 25, the moment of confusion makes up the emotional reaction to cues that violate one's expectations of a given situation that might develop into a cosmology episode, unless they are addressed adequately. Now, before I proceed to the third concept – the 'cosmology episode', I take a closer look at the second experience of a situation that leads to loss of meaning – 'a collapse of sensemaking.'

5.4.2. Collapse of sensemaking

As mentioned earlier, Weick understands sensemaking as a process which is grounded in seven so-called properties: 1) the construction of identity, 2) sensemaking is retrospective, 3) sensemaking is enactive, 4) sensemaking is social, 5) sensemaking is ongoing, 6) focused on and by extracted cues and finally, sensemaking is driven by plausibility instead of accuracy (Weick, 1995a, p. 17), or in short 'The basic idea of sensemaking is that reality is an ongoing accomplishment that emerges from efforts to create order and make retrospective sense of what occurs' (Weick, 1993b, p. 635). When sensemaking collapses, some or perhaps all of its properties collapse, so that, for example, the involved individuals' identity, time (the retrospective property), mutual processes (the ongoing or/and enactment) and focus on cues collapse, and one could say that they do not work anymore and leave the individuals in a state of panic and emptiness.

Weick is interested in sensemaking as an alternative to traditional managerial decision making, which is also shown in 'Rethinking organizational design' (Weick, 1993a) and views decision making as an accomplishment that does not fit real life.

'The world of decision making is about strategic rationality. It is built from clear questions and clear answers that attempt to remove ignorance (Daft and Macintosh, 1981). The world of sensemaking is different. Sensemaking is about contextual rationality. It is built out of vague questions, muddy answers, and negotiated agreements that attempt to reduce confusion. People in Mann Gulch did not face questions like where should we go, when do we take a stand, or what should our strategy be? Instead, they faced the more basic, the more frightening feeling that their old labels were no longer working. They were outstripping their past experience and were not sure either what was up or who they were. Until they develop some sense of issues like this, there is nothing to decide' (ibid., p. 636).

In summary, collapse of sensemaking occurs when the context produced by cues does not fit the constituents of sensemaking – identity construction, ongoing processes between individuals and so forth. Depending of the context, such a collapse can be deadly, as in Mann Gulch and in the many other accidents Weick has studied. However, as he remarks in the 1993 paper, 'The disaster at Mann Gulch was produced by the interrelated collapse of sensemaking and structure. If we can understand this collapse, we may be able to forestall similar disasters in other organizations' (ibid., p. 634). These insights from disasters and major accidents are thus also relevant to contemporary postmodern businesses in hypercompetitive global environments.

5.4.3. Cosmology episode

The third concept I find relevant to mention is the 'cosmology episode', which I later will describe as disruption. The 13 men died in Mann Gulch, when the situation developed into what Weick terms 'a cosmology episode.'

'Cosmology is the ultimate macro perspective, directed at issues of time, space, change, and contingency as they relate to the origin and structure of the universe. Integrations of these issues, however, are not just the handiwork of philosophers. Others also make their peace with these issues, as reflected in what they take for granted. People, including those who are smokejumpers, act as if events cohere in time and space and that change unfolds in an orderly manner. These everyday cosmologies are subject to disruption. And when they are severely disrupted, I call this a cosmology episode' (Weick, 1985: 51-52).

In the above paragraph, Weick describes a process from stability which is affected by cues (small changes in the periphery) over the collapse of sensemaking (a sudden loss of meaning) to a cosmology episode, where everything seems to end for the involved individuals, the deep feeling of a loss of the 'rational, orderly system' (ibid.). Moreover, the experience of the breakdown of the universe becomes 'shattering' because the 'sense of what is occurring and the means to rebuild that sense collapse together' (ibid.). Put differently, the idea of what is up and what is down dissolves, and only panic is left. This is not to say, of course, that all disruptions are cosmology episodes in that sense, which means that I will modify the concept when necessary when I use it in the following.

Concluding remarks

The purpose of this chapter was to offer an overview of Weick's work related to design and management from the perspective of OMS, because it digs deeper into the organizational life than the previous reviewed literature. And following the main research question about understanding practices of organizing for innovation in the context of a fintech cooperative, we needed a deeper insight into organizational life. The chapter furthermore makes up the primary foundation for the analytical framework, although this will also involve the previously reviewed theoretical aspects. Initially, the chapter reviews Weick's influence on OMS, thanks to which we can now talk about how groups of people are working together in organizing processes articulated as 'sensemaking', in contrast to the idea of the organization as a static unit. The chapter goes on to focus on Weick's work related to design and management (Weick, 2004a, 2004b) in which he applies his sensemaking perspectives to the process of designing. Via two examples of designing he shows the multiplicity of internal organizational processes. What I highlighted in this context is what I see as deconstructing and reconstructing as phases of his sensemaking perspectives as a way to renew and innovate the familiar through improvising processes. The two phases of sensemaking were further broken down into several stages. First, three stages of disruptive processes and experiences – moments of confusion, collapse of sensemaking and cosmology episodes – were described; second, the reconstruction phase was described as reaching out for cues in the periphery combined with the artist Robert Irwin's description of six stages of the

process of constructing. The review also touched upon the emotional aspects of experiencing cues in the periphery and threats to the familiar.

Table 6: Overview of Weick's concepts related to design and designing

Weick's concepts	Meanings
Organizational design	Organizing.
Sensemaking	'Placement of items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding, and patterning'; Authoring as well as reading.
Microcosms of design	<u>About social relations</u>; limited by complex relationships; agreeing, ambiguity, different points of view, conflicts and desire for reconciliation; identities and structures reified into solidity; making do, improvising, cobbling a bricolage together; flow, motion, dynamics; feeling, intensity, passion, cunning, exploding.
Microcosms of design	<u>Building handrails</u> through a sequence of six stages (inspired by the artist Robert Irwin).
Microcosms of design	Undoing abstractions, monitoring, containing, reversing of compounded abstraction.
Compounded abstraction	Perceptions turned into concepts through the handrail building process or Robert Irwin's six stages: *perception, conception, formal, form, formful and formalize.*
Too-fixed design, dangerous design	Conceptually based knowledge, conceptual epistemic and schema-driven mode of perception, which need to be unravelled in order to avoid cosmology episodes.
Moments of confusion, collapse of sensemaking, cosmology episode	The process of destruction from bodily registering unexplainable small cues sparking confusion or emotional arousal, over sudden meaninglessness to the final breakdown. If moments of confusion (small cues) are reacted upon, the next two phases might be avoided.
Decisive grounding	To cut through fixed labels and concepts.
Shareability constraints	The sharing of perceptions reduces the individual perceptually based knowledge in

	the interest of coordination, the shared concepts are simpler and more general in the interest of transmission between people.
The charm of the skeleton	'Unfinalized' organizational design, organizing in order to make room for people's self-organizing.
Designing	Understood both as improvising the new and as a process of unravelling or dissolving a reified design in order to renew the understandings of the periphery. The concept appears ambiguous.

A multi-diverse theoretical framework

Having outlined the ontological foundations for the project in chapter 2, I successively reviewed three different research fields in the following three chapters: 1) the managerial aspects of innovation, 2) the managerial aspects of design and 3) organization and management studies in order to anchor the project in theory, guided by the initial research question. Based on different ontologies, the three research fields challenge the construction of a coherent theoretical framework. Yet, as Tsoukas and Chia (2011) state, referring to William James (1911/1996), 'true insight and understanding' can only be achieved by 'confronting and scrutinizing foreign concepts and perspectives instead of avoiding and omitting them'. In this concluding discussion of Part 2, I will thus seek to establish a multi-diverse theoretical framework across the three fields of research by bringing together different perspectives that inform the present study theoretically. The following research question is pursued: *How can we understand the practices of organizing for innovation in the context of a Nordic fintech cooperative?*

Since several theoretical perspectives are involved in the study, I have added a sub question: *How can we construct a coherent theoretical framework, drawing on management of innovation, design, and organization studies, that enhances our understanding of organizing for innovation?* I will seek an answer to the sub-question in this concluding discussion of the theoretical perspectives, by exploring where the different research perspectives can meet and complement each other in common research insights despite their different ontological backgrounds. 1) The starting point will be a discussion of 1a) the understanding of design and innovation across ontologies and 1b) the description of design thinking in the management discourse as a driver for innovation as i) a grand new narrative or/and ii) an unarticulated attempt to connect theories across ontologies.

2) Next, I examine what I see as the literature's two common denominators: 2a) a collective statement across ontologies that innovation is imperative in today's competitive global business environment, and 2b) what I have identified as a subject-object dichotomy theme. The subject-object dichotomy leads me to discuss i) the three research fields in an ontological light and ii) two themes emerging from this cross-ontological discussion related to reorganizing for innovation:

'collaboration', 'organization and disruption' and to analyse potential consequences of the subject-object dichotomy. 3) Finally, I will suggest how we may understand a connection between ontologies, discussing, on the one hand, 3a) 'problems and habits' and, on the other, 3b) 'embodied knowledge'. The discussion concludes with a summary of the cross-disciplinary theoretical discussion in order to settle the theoretical framework to be applied on the empirical material for the analysis. Along the way I suggest a reading of the articulated and unarticulated subscription to ontologies.

1. Understanding design and innovation across ontologies

While the proponents for the benefits of design thinking in the management discourse (Boland & Collopy, 2004a; Brown, 2009; Martin, 2009) see design as a concept deriving from either the art-based design schools or product development, organization and management scholars' conception of design derives from the concept of *organizational* design in the traditional management (research) context. This view is based on an understanding of the organization as a clear and fixed phenomenon – a notion that is rejected by Weick, as pointed out by several scholars of organization and management studies (Bakken & Hernes, 2006; Czarniawska, 2005; Gartner, 2012; Steyaert, 2012; Tsoukas & Chia, 2011) who also embrace his perspectives.

Etymologically, design means 'to mark out' or 'to plan', as mentioned earlier, while innovation means 'to renew' or 'into the new'. In other words, both words deal with novelty. However, the meaning of the word 'design' can be interpreted as an intentional process aimed at an end, a conclusion, an implication that is absent from the word 'innovation'. The understanding of design as physical and visual artefacts, frozen or stopped phenomena, equals the traditional management literature's view on the organization as a stable entity, a phenomenon 'out-there' (Czarniawska, 2005) which in turn may be subjected to disruption. This distinction is important, since, as mentioned earlier, organization and management scholars confronted this understanding of organizational design many years ago. Thus, it may seem odd in an organization and management context to return to the concept of design as something new or special, as proposed by Boland and Collopy (2004) and Boland et al. (2016), among others, and rejected by, for example, Orlikowski (2004). Although Weick (2004b) does not reject the definition explicitly,

his concept of design must be regarded as aligned with the traditional notion of organizational design. He furthermore turns the manager into 'a designer', and his or her activity into 'designing', without, however, any links to art-based or industrial design, due to his pioneering work on the processual perspective on 'the organization'. He does, though, in some of his writings refer to art (e.g., literature, theatre and jazz music) and creates several change figures, as described in Chapter 5. One example here is the 'change poet' (Weick, 2011). However, historically, the design *activity* can be traced back to the preindustrial artisans (Heskett, 2002; Shiner, 2001), who during the age of industrialization began to work in factories, and whom Austin and Devin (2004) refer to as inspiration for their development of what they term, metaphorically, 'artful making'.

1.1. The status of design thinking?

According to Johansson and Woodilla (2008, 2011), the more than 100-year-old scientific management theory runs like an invisible stream beneath the concept of design thinking in the management discourse. This has influenced the use of concepts such as 'strategy' and 'competitive advantage' in the design thinking discourse (Brown, 2008; Brown & Martin, 2015; Martin, 2009, 2011) in a fusion with design practice based on the radical humanist paradigm (Johansson & Woodilla, 2008b, 2011).

1.1.1. A new grand narrative?

Now, following, for example Hassi and Laakso's (2011) description of design thinking, we find a focus on variety of characteristics that do not belong to the functionalist paradigm; quite the contrary. Among these characteristics are 'people's fundamental assumptions, values, norms, and beliefs, empathy with users, accepting failure, collaborative work style, democratic leadership' and others (Hassi & Laakso, 2011, p. 5) . These are not phenomena 'out there' to be measured but refer to the complexities of human life, such as habits and a fluid culture. This view of design thinking thus stands in contrast to scientific management, for example, with the former's inclusion of democratic leadership. Hassi and Laakso's work shows the design thinking literature's endeavour to articulate design thinking as an overarching tool for business and management in pursuit of the innovative organization and organizational sustainability. This can furthermore be seen as an attempt to institute a new grand narrative (Fallan, 2010; Orlikowski, 2004) or

essentialism (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013), which research in sociology, philosophy and the humanities confronted during the 1960s and 1970s and still does not accept today (Czarniawska, 2008; Holt & Sandberg, 2011; Tsoukas & Chia, 2011). Within the design (thinking) discourse, Fallan (2010) and Johansson-Sköldberg et al. (2013) also question our need for such a new grand narrative.

As an example of this, Roger Martin (2009) argues that design thinking is the new competitive advantage, while simultaneously criticizing the modern idea of 'strategy based on rigorous, quantitative analysis' or 'mastery through rigorous, continuously repeated analytical processes'. This seems somewhat self-contradictory, since he, on the one hand, abandons the modern idea of quantitative analyses and analytical processes while, on the other, referring to concepts such as strategy and competitive advantage, which belong to that very tradition. Hence, while Johansson and Woodilla (2011, 2008) point out the lack of communication channels between design practice and design management, and, I would add, design thinking, in a management discourse, I find a lack of communication channels between the latter and organization and management studies.

Critiquing the very idea of gaining competitive advantage, McGrath and Kim (2014) see modern ideas of quantitative analysis and so forth as problematic today, as in their assessment these ideas reflect a managerial mindset deriving from the American post-Second World War period. They argue that the global market is different today, that it is impossible to achieve a competitive advantage without confronting the traditional understanding of strategy. In other words, they are more in line here with Tsoukas and Chia (2011), referring to the modern concept of knowing based on analysing representations and causal relations, the ability to generate 'proof' and to identify and consider phenomena as true. During modernity '[t]heories came to be recognized as empirically verifiable and intellectually justifiable claims regarding the nature of reality' (Tsoukas & Chia, 2011, p. 2). However, although McGrath and Kim (2014) criticize the strategy literature for its failure to involve processes and human infrastructure, they still operate with the organization as a fixed entity.

Further, in criticizing Boland and Collopy's version of design thinking as being linked to Simon (1967), Johansson-Sköldberg, Woodilla and Cetinkaya (2013) point to a rationalistic perspective on design practice, which reveals traces of modernity and the era of industrialization. Furthermore, the work of Boland and Collopy (2004) and Boland et al. (2016) may also be seen as an example of support for a new grand narrative. They seek a better, more ethical and more mature management culture and behaviour, which, they argue, can be accomplished through a design attitude or design thinking.

1.1.2. An attempt to connect ontologies?

While Johansson and Woodilla's (2011, 2008) criticize the lack of communication channels between paradigms within research into design practice (designerly thinking) and, as I suggest, into design thinking in the management discourse, I propose another view of this perspective, namely that literature on the managerial aspects of design (including design thinking in the management discourse) attempts to *bridge* these ontologies and epistemologies, however unarticulated. This would involve registering capabilities in one ontology (or paradigm) and incorporating them into the other in order to make use of these qualities. However, the establishment of communication channels will support this purpose as suggested by Johansson and Woodilla (2008, 2011). I will thus attempt to establish such communication channels by applying the Weickian sensemaking perspective in detail[49] to the case as my analytical framework, as it can contribute to articulating those channels or that missing link between design practice and organization and management studies. Now, before discussing Weick's version of managing as designing, I will identify what I see as some common denominators between the ontological foundations of the literature that informs my dissertation. Based on these common denominators I will seek to establish some common ground between these ontological foundations.

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[49] By 'in detail', I refer to Weick's sensemaking perspective containing both the deconstructive phase (moments of confusion, collapse of sensemaking, cosmology episode) and the handrail-building or reconstructive phase described through Irwin's six stages, from perception of cues in the periphery to the last, formful stage, which to Weick equals the too-fixed design.

2. Establishing common ground

In the introduction of the second part of the dissertation, I referred to Tsoukas and Chia's (2011) criticism of modernity's concept of knowledge, in which they state that today, we can no longer rely on what they call 'authoritative representation of things'. Instead, we may speak about an *interpretation* of reality. Referring to William James, they argue that our concepts are secondary information and, as such, both falsify and omit phenomena of reality. They stress that our construction of reality simultaneously excludes a large part of that reality and renders it unseen, unarticulated, impossible to register.

The notion that things exist 'out there', independent of human existence, characterized as a subject-object dichotomy (Holt and Sandberg, 2011), seems to divide the reviewed literature. As Tsoukas and Chia (2011) stress, James problematized this division between subject and object. The point is further unfolded in an earlier publication by Chia (2003), who refers to research on language history and the story about the Phoenician alphabet as a key source of Western society's general assumption that things exist 'out there' and can be grasped as something intrinsic, an assumption that gives language and visual perception precedent over our other senses. With this, and later together with Tsoukas (2011), he positions himself in the interpretive paradigm, which stands in contrast to the traditional management paradigm – the functionalist paradigm. Together with Weick and other organization and management scholars included in the literature reviews, the work of Chia and Tsoukas constitutes part of contemporary organization and management studies, subscribing to an ontology abandoning the subject-object dichotomy, while much of the innovation management theory subscribes to that very dichotomy. In the following, I will show some examples of the different viewpoints of the literature with regards to ontology and the subject-object dichotomy.

2.1. Across ontologies: innovation is imperative today

Across the literature's ontological and epistemological stances, research contributions collectively point to the fact that the disruptive activities that characterize today's post-industrial societies and the increasing complexity of the global business environment make innovation a condition for running a business. Although articulated in a variety of terminology, the literature agrees that

this calls for new managerial competences and managerial practices (Austin & Devin, 2003; Biedenbach & Söderholm, 2008; Boland, 2016; Boland & Collopy, 2004b; Hjorth, 2012b; Martin, 2009; McGrath & Kim, 2014). Specifically, innovation requires a distinction in managerial thinking and actions between controlling the business and letting go of control and being prepared for 'multiple postindustrial becomings' (Hjorth, 2012b; Hjorth & Gartner, 2012), accepting two competing managerial stances, 'flexibility and controllability', making innovativeness the enterprise's core competence (Biedenbach & Söderholm, 2008), differentiating between decision attitude and design attitude (Boland, 2016; Boland & Collopy, 2004b), differentiating between decision making and sensemaking (Weick, 2004b) or differentiating between industrial making and artful making (Austin & Devin, 2003).

2.2. The subject-object dichotomy

Besides identifying the need for an ambidextrous approach to managing organizations today, I have additionally identified the literature's articulated and unarticulated reference to the subject-object dichotomy, regardless whether it subscribes to or abandons the dichotomy. I discuss this in the following. In continuation of the dichotomy perspective I discuss the three research fields in an ontological light and also explore three different themes emerging from the discussion related to reorganizing for innovation: 'collaboration', 'organization' and 'disruption' and finally analyse potential consequences of the subject-object dichotomy. On the basis of that discussion, I will seek to bring together, on the one hand, the managerial aspects of innovation and organization and management studies, and on the other, the managerial aspects of design and organization and management studies.

2.2.1. The managerial aspects of innovation and OMS

In short, as an expression of the subscription to the subject-object dichotomy, the focus of, for example, the traditional innovation management literature contributes with quantitative data regarding the occurrence of disruptive events, for example in the form of technological innovations or new patents as well as the duration of enterprises' lifespan (Biedenbach & Söderholm, 2008; Bower & Christensen, 1995; Christensen, 2000; McGrath & Kim, 2014), organization and management studies contribute to knowledge about organizational life. As

Kelemen and Hassard (2003) and Czarniawska (2008) state, the positivist epistemology cannot fully explain what goes on in organizational life. On the other hand, organizational scholars who denounce the subject-object dichotomy and points derived from quantitative methods may miss out on data that might support their own arguments and, potentially, a better understanding of their own research.

The fact that no unified theory of innovation management exists (Dodgson, Cann, et al., 2014), naturally leads to a plurality of ontological foundations guiding an individual project's research methodology. The literature presented in Chapters 3, 4 and 5 reflects this plurality. Ahmed and Shepherd (2010), for example, focus on the span of incumbents' life having grown shorter since 1715, a phenomenon they refer to as 'Schumpeterian waves'. McGrath and Kim (2014), along with Biedenbach and Söderholm (2008), support this perspective, articulating it as the lifespan of incumbents having decreased dramatically, from an average of more than 60 years in 1955 to 16–17 years in 2010. As I will show later, this has consequences for the view of the organization and disruption.

This focus on measuring organizations' lifespan can be understood as an authoritative representation, based on the notion of fixed objective phenomena 'out there' separated from human interpretation. Another example of 'out-there-ness' is Tidd and Bessant's (2014) idea that a single person – the lone heroic inventor – creates an invention or comes up with a new worthy idea on his or her own. Besides being an idea created by one person alone, it is also now seen as a crystallized frozen idea to be picked up and exploited by others. This contradicts both ethnographic studies documenting that successful inventions (including design) are not conceived by any one person alone but, on the contrary, depend on contributions from multiple individuals in a 'co-production of ideology and practice' or 'negotiations between design ideology and design practice' (Fallan, 2010, p. 149) and are, furthermore, continually enacted (Fallan, 2010; Orlikowski, 2004). Both Fallan and Orlikowski thus position themselves in opposition to the idea of 'out-there-ness', and in extension of this, both 'design' and 'inventions' are simply dead, worthless ideas or things without the organizing and enacting activities and processes.

The latter point is in line with Hjorth (2012b), who emphasizes the relationship between the 'part and the whole' and focuses on organizing, rather than on the crystallization of an idea or invention that is viewed as an independent entity. The key point is that this understanding also implies the rejection of the idea or invention as a pre-existing phenomenon 'out there'. The invention will not 'become' without organizing or organization creation (Hjorth, 2012b; Hjorth & Gartner, 2012). This perspective corresponds with the etymological origin of the word 'innovation', meaning 'into the new' or to 'renew'. In other words: the etymology of the word 'innovation' reflects a process perspective – something which becomes.

2.2.2. The managerial aspects of design and OMS

Johansson-Sköldberg and colleagues (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2008b, 2011) are to, my knowledge, the first scholars to elucidate the metatheoretical perspectives of the managerial aspects of design. Metatheory has been debated in organization and management studies continuously since the 1960s and 1970s (Alvesson & Sköldberg, 2009; Gioia & Pitre, 1990; Kelemen & Hassard, 2003; Law, 2004; Weick, 1999b; Westwood & Clegg, 2003). According to Johansson and Woodilla (2011, 2008), such debates have remained outside the field of the managerial aspects of design. The description of design thinking in the management and consulting literature thus seems to reproduce the scientific philosophy behind what Burrell and Morgan (1979) characterize as the functionalist paradigm, contrary to the radical humanist paradigm in which Johansson and Woodilla (2008, 2011) position design practice, the practical and professional foundation for design thinking. This points to the claim that an unarticulated stream of scientific management runs beneath the literature on design thinking in the management discourse.

Scholars criticizing the way in which the literature on design thinking reduces design practice to tools, principles and methods, while ignoring aesthetics, embodied knowledge and interactions with materials, often refer to Pragmatism as a theory that can be used to inform design practice (Amacker, 2017; Hjelm, 2005; Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Kimbell, 2011; Rylander, 2009). One example of this is James's claim that human consciousness does not register 'things' as final stops but, on the contrary, flows, and that language furthermore misleads us by

breaking our thoughts up into discreet elements, names and labels. The above-mentioned scholars thus agree with scholars subscribing to the processual approach to organization and management studies that rejects the subject-object dichotomy (Hjorth, 2012b; Holt & Sandberg, 2011; Tsoukas & Chia, 2011; Weick, 2004b). In Weick's view of managing as designing we see the agent as both improvisor and dissolver of reified design seeking to renew the understanding of the periphery. Furthermore, as mentioned in Chapter 5, Weick operates with a variety of constructed figures, to whom he attributes deconstructive and reconstructive capabilities – among them, the bricoleur, the change poet and the jazz musician. These figures transcend the known, the fixed, the taken-for-granted and so forth and may be seen as incarnated rejections of the subject-object dichotomy.

Artisans and OMS

According to Weick (2004), the sensemaking process leads to reified labels and concepts – a process that turns the new into a frozen condition, which we now believe in and regard as a phenomenon 'out there'. Consequently, we focus on, for example, figures in a picture due to an expectation that significant and labels can be articulated through language, a phenomenon that is exemplified by the work of certain artists, for example cubists Braque and Picasso, as mentioned earlier. Their artworks fuse figure and ground into a single depthless surface, thus positing the division between figure and ground as an artificial construct (Kern, 2003), which may be seen as a comment to modernity's ontological world view. Braque and Picasso thus reject the subject-object dichotomy, as do Austin and Devin (2004), albeit without articulating this position explicitly. By pointing to preindustrial artisans as a source of inspiration for their metaphor of 'artful making', and further by positing artful making as an alternative to industrial making, they also implicitly reject the subject-object dichotomy. Referring to preindustrial artisans' iterative practice and comparing this practice to theatre performances, where performers use and integrate fellow performers' actions into their own performance, is thus, in my interpretation, actually dissolves the subject-object dichotomy.

Also, by showing how a theatre director pushes performers to 'their edge', the authors simultaneously allude to a unity of mind and body and articulate this specifically as a looser, 'not

too narrow', managerial perspective on individuals. This looser view also includes managing the process of making from what they call 'vague ideas into less vague' to a point where their own and the actors' work emerges into 'a clearer form'. This expresses an understanding of the individuals' mental borders as being simultaneously fluid and merging.

It seems to me that Weick (2004) and Austin and Devin (2004) agree that during change processes we transform 'the vague to the less vague'. Weick takes this one step further by formulating how the vague transforms into reified objects 'out there'. Referring to Irwin's six-phase process, he explains how perceptions or 'airy nothing' move(s) to formalizations away from the specific stimuli and are ultimately turned into reifications and labels or 'compounded abstractions' (Weick, 2004b, 2010). This results in 'dangerous designs', which needs to be unravelled in order to avoid sudden deconstructive events – moments of confusion, collapse of sensemaking and cosmology episodes. Weick's work thus also eschews the subject-object dichotomy. However, I also see it as reaching out for the ontology of innovation management, as he dives into the everyday practical life of firefighters and managers and turns his idea of cosmology episode into the concept of business disruption. This implies that he accepts a business as an entity and thus transcends his pioneering process perspective.

2.2.3. Understanding collaboration

Another theme mentioned in the literature reviews with regard to innovation is collaboration as a source, defined as 'the shared commitment of resources to the mutually agreed aims of a number of partners' (Dodgson, 2014, p. 462) about collaboration if 'all contributors commit resources to it, and mutually determine its objectives' (ibid.). Collaboration articulated as activities taking place 'across organizational borders' may simultaneously be seen as expressing a view of organizations as fixed entities and thus also as an example of a subscription to the subject-object dichotomy. However, the 'shared commitment of resources to the mutually agreed aims of a number of partners' (Dodgson, 2014, p. 462) is close to the understanding of collaboration that Austin and Devin (2004) argue for when they point to (theatre) performers using each other's material and integrating it into their own individual performance, which co-performers may then, in turn, integrate into theirs. However, while Dodgson (2014) views the organization as a fixed

entity, I understand Austin and Devin's (2004) points as implying an unarticulated rejection of the subject-object dichotomy. While Austin and Devin (2004) show that they accept a fluid individual identity, Weick sees the organization as organizing, sensemaking and processes opposing to the traditional innovation management perspective represented by for example Dodgson (2014). However, this distinction between the literature on innovation management and organization and management studies is not always crystal clear.

As described in Chapter 3, McGrath and Kim (2014) criticize strategy scholars for excluding processes from their research. They also point to Porter's famous 'five forces' as an example of a static perspective on the world, which in their opinion has lately been undermined by hypercompetition. Further, they argue that the literature's assumptions about clear boundaries between industries seems to be collapsing in the age of hypercompetition. They furthermore characterize this as 'a transient advantage economy', where organizations are temporary, which again raises doubt about the understanding of collaboration. To me, this may be seen as unspoken doubt about the subject-object dichotomy and thus also impacts the idea of collaboration as interactions between fixed entities.

2.2.4. Understanding organization and disruption

Viewing the organization from a phenomenological perspective, what we regard as phenomena 'out there' is seen as constructs, meaning that we cannot 'split off the subjective domain from the domain of the world as scientific naturalism has done' (Holt & Sandberg, 2011, p. 238). This furthermore means that we must understand subjectivity as 'inextricably involved in the process of constituting' and thus not as something outside the perceiving individual. This has consequences for our understanding of disruption, which, if we look at the organization from, for instance, Holt and Sandberg's (2011), and Hjorth's (2012) perspectives, would be nothing but interactions between people. An interpretation of their points could then be that we will find *no* organization to be disrupted.

While the innovation literature (Chapter 3) (Biedenbach & Söderholm, 2008; Christensen, 2000; Christensen & Rosenbloom, 1995; D'Aveni, 1995), describes disruption as firms' diminished

lifespan and, in addition to proposing the concept of hypercompetition also articulates the idea of the organization as a fixed entity which may be threatened externally, and the idea of resistance to the new (Bettis & Prahalad, 1995; Hjorth, 2016; Prahalad, 2004; Sull, 1999), Weick's account for how disasters unfold offers a process perspective on the phenomenon that is parallel to the idea of a fixed entity, as mentioned earlier. From this process perspective, disruption appears merely as a stop to organizing in a specific area between specific people around specific objects, followed by organizing in a new area in which people then become engaged. Or, as Hjorth (2012) writes, the relationship between the part (the new idea or invention) and the whole means that new products and services lead to new behaviour, and that we organize our lives differently. Consequently, we abandon old parts, around which it no longer makes sense to organize. From the subject-object perspective, Ahmed and Shepherd (2010) see this new organizing practice as an example of the continually shortening Schumpeterian waves.

If we now focus on our known organization in the real world, for example FintechOrg, we will naturally seek to secure that organization in order to, for example, preserve jobs and hence need to reorganize and innovate in order to survive by continuously creating new market value or make innovativeness the organization's core competence' (Biedenbach & Söderholm, 2008).

2.2.5. Consequences of the subject-object dichotomy

From a perspective that includes a subject-object dichotomy, the fear of disruption could be interpreted as individuals' view on the organization as a fixed entity, boxes in a hierarchy, as criticized OMS scholars (Czarniawska, 2005, 2008; Tsoukas & Chia, 2011). Based on Weick's work, for example, the Mann Gulch piece (Weick, 1993b), I would argue that this perspective actually seems to increase the organization's vulnerability and its risk of being subjected to disruption. I would propose that a subject-object dichotomic perspective limits the scope of our thinking about the organization and its opportunities, in the same way as the firefighters' thinking was limited to the concept of the ten o'clock fire. Their initial idea that they were facing a small fire which they assumed would be extinguished by next morning limited their ability to appreciate that they were in fact facing a different reality and were thus unable to confront it and put out the fire. From Weick's perspective, people generally act 'as if events cohere in time and space and that change

unfolds in an orderly manner, and thus risk exposing themselves to disruption (Weick, 1985: 51-52)' (Weick, 1993b, p. 633).

This further implies (again, according to Weick) that time and space play a role in what scholars in innovation management see as a complex hypercompetitive global business environment (Biedenbach & Söderholm, 2008; D'Aveni, 1995; McGrath & Kim, 2014). From a process perspective we would appear to have fallen victim to that very fluid reality described by James in the 19th century. By maintaining an understanding of the organization and its environment that includes a subject-object dichotomy and by treating time and place as separate phenomena, we risk intensifying business disruption. In extension of this point, sequential and industrial thinking thus reduces our performance, our ability to reorganize in accordance with the changes happening in the surroundings, because we subscribe to the idea of a fixed world and a similarly fixed personal and organizational identity. While Weick sees this as the behaviour of 'highly coordinated people' focusing on the existing and known, and thus ignoring small cues that do not fit their perception of the world, researchers subscribing to the subject-object dichotomy point at this mechanism too, although they understand it differently. According to, for example, Bower and Christensen (1995), disruption occurs because resources for new initiatives are not allocated, for example because current customers 'explicitly do not want them' or, following Henderson (2006) and Sandström (2010), because incumbents are 'held captive' by their investors and customers and thus fail to allocate resources to less profitable initiatives.

From a Weickian point of view, disruptive threats produce doubt and generally uncomfortable and negative emotions that threaten a loss of identity. The struggle of holding on to a certain identity can also be seen as resistance and cooptation (Hjorth, 2016), a dominant logic (Bettis & Prahalad, 1995; Prahalad, 2004), active inertia (Sull, 1999) or a too-fixed concept (Weick, 2004b) that blocks change and innovation and thus threatens the organization from 'inside' or, from a Deweyan perspective, as a struggle to preserve a certain identity by means of 'habits'. Furthermore, a perception of the organization as a fixed (organizational) design may also be understood as an expression of modernity's understanding of design as an end. Although we may identify a design process that leads to the final design, from a perspective that includes a subject-object dichotomy the process stops there, and we register the final, solid entity as a piece of

industrial design that is visible (this also includes service design, interaction design and systems design as the newer disciplines mentioned by Heskett (2002) and Buchanan (1992)) and which can be identified via language. Process scholars (Gartner, 2012; Helin et al., 2014; Nayak & Chia, 2011; Steyaert, 2012; Weick, 2010) on the other hand, point to organizing processes that take place invisibly, continuously moving forward, and Weick (2004, 2011) stresses improvisations by continuously incorporating cues in the periphery to the existing.

With regard to design thinking in the management discourse, the concept has entered the organization and management research field from the field of production of artefacts and industrial products without the insights into organization and management studies articulated in postmodern debates and so forth, instead invisibly carrying the traces of scientific management (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013; Johansson & Woodilla, 2008b, 2011). This, then, results in a static view on the organization as something that may be 'saved' by the achievement of strategic advantage through design thinking (Martin, 2009) or design attitude (Boland & Collopy, 2004a) and thus paradoxically may be counterproductive.

Weick (1993b) suggests an interpretation of what happens within the organization, or between individuals in a group, when the organization collapses. From his perspective, sensemaking stops, or time and space no longer 'unfold in an orderly manner' (ibid.). While the field of OMS does not, to my knowledge, include research into the phenomenon of disruption, Weick stands out with his studies of disasters. In my analysis of this perspective, disruption is based on a *deconstruction phase* within individual and collective perceptions. More specifically, the *deconstruction phase* is articulated as 'moments of confusion, collapse of sensemaking and cosmology episodes' (Weick, 1993b, 2004b). While other authors focus their contribution on what I term the *rebuilding* phase, albeit articulated as, for instance, 'design thinking driving innovation' (Brown, 2009; Martin, 2009), 'artful making' (Austin & Devin, 2003), 'innovation' (Tidd & Bessant, 2014) 'managing as designing' (Boland, 2016; Boland & Collopy, 2004a), the activity still concerns the creation of the new in contrast to articulating the deconstruction process, the process of dropping old tools, worldviews and so forth. Based on a process ontology, Weick offers a view on disruption that the literature in the functionalist paradigm is not capable of, because it does not work with the

'invisible internal organizational life', which was articulated by Weick (Czarniawska, 2005, 2008; Tsoukas & Chia, 2011).

As a condition for avoiding disruption, Weick points to the need to learn to identify and drop tools, such as, for example, dangerous designs, in a deliberate act to deconstruct existing ideas of the known, lest disruptive events catch us unprepared. Taking his point of departure in the Mann Gulch story, where firefighters were killed, in part, because they failed to drop their concrete tools, he encourages managers to learn to drop tools as a deliberate act in order to be able to meet disruptive threats (Weick, 1996, 2007).

3. Connecting ontologies

I propose that Weick's work has the capacity to connect ontologies – more specifically between process perspectives and the subject-object-dichotomy perspective, because he embraces the idea of organizing as a process approach to organization and business life which also articulate disruption of businesses and thus accepts the subject-object dichotomy. This, as discussed above, predominantly belongs within the traditional innovation management literature, which subscribes to the subject-object dichotomy. This is, in my assessment, one of the strengths of Weick's work and is most clearly expressed in the Mann Gulch piece:

'[f]aced with similar conditions [as the group of fire workers], organizations that seem much sturdier may also come crashing down (Miller, 1990; Miles and Snow, 1992), much like Icarus who overreached his competence as he flew toward the sun and also perished because of fire' (Weick, 1993, p. 638).

As mentioned earlier, although Weick distances himself from the subject-object dichotomy and stresses that we cannot understand organizations as static entities 'out there' but should view them as organizing, he does not see himself as one of the 'ontological purists' (Weick, 1995). While he is predominantly occupied by processes between people in smaller or larger groups, he also addresses the disruption of businesses, as exemplified above in the 1993 quote and, again,

in his work with Sutcliffe in, for example, *Managing the unexpected* (Weick & Sutcliffe, 2015).[50] Further in relation to disruption, some of Weick's ideas in combination with parts of the reviewed literature are highlighted in the following. This includes both Dewey's perspective on 1) problems and habits and design researchers' emphasis on of 2) embodied knowledge in the process of making.

3.1. Problems and habits

Weick describes disruption as the ruined process of continual sensemaking efforts between individuals in a group, which may even lead to deadly events, as in the Mann Gulch case as a result of 'moments of confusion, collapse of sensemaking and cosmology episode' (Weick, 1993b, 2004b). Furthermore, I propose that Weick's concept of dangerous design in an organizational context corresponds to what Dewey (1916/1989) terms 'habits' which contribute to smoothing social life and thus improve our ability to avoid the emotions that would be associated with the act of braking away from habits. According to Dewey, habits function as unconscious background knowledge, smoothly and without deliberation. This is, in my view, another way to refer to taken-for-granted or dangerous design, which simultaneously reduces agility and strengthens resistance to change. Dewey's concept of habits can be compared to Weick's (2004b) concept of dangerous design, which risks blocking the process of unravelling 'labels, reifications, compounded abstractions', while the 'felt quality' is comparable to what Irwin registers as perception and conception. At the stages of perception and conception, nothing is visible, nothing can be verbalized; what happens is only vaguely perceivable and emotionally registerable. Furthermore, in the Weickian vocabulary, the process of these stages is prompted by 'cues in the periphery'.

This is challenged by Austin and Devin (2004), who focus on bringing performers out of their comfort zone, which, in my view, equals habits and dangerous designs (such as, e.g., identity) – in other words, making performers reach out for and accept emotions of varied qualities. Regarding habits and dangerous design, we find similar implications – namely that habits and

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[50] To my knowledge Weick does not refer to the well-known disruption literature reviewed in Chapter 3, including, for example, Christensen (2000), Christensen and Bower (1998), which nevertheless to me seems to support his points. However, in the 2015 publication he describes disruption of a variety of businesses and organizations.

dangerous design 'smooth social life' and make us feel comfortable and secure, thus increasing the risk of disruption. The two phenomena can be explained as a frozen stage of the construction process, which has now turned into a taken-for-granted idea, artefact or identity.

As mentioned earlier, in the design literature, Dewey's inquiring and iterating processes have become closely connected with design practice. Dewey's philosophy (and pragmatists' philosophy in general) is known as a *philosophy of embodiment*, for example expressed via an 'immediately felt quality' (Rylander, 2012). However, one challenge regarding innovation and disruption is that if individuals and managers do not *feel* a problem, would they then initiate an inquiry? Much design thinking literature revolves around problem-solving capability, the processes and methods of problem solving – be it articulated as 'being enthusiastic about solving problems', as identifying problems or as identifying the right problem for the best possible solution and so forth (Boland & Collopy, 2004a; Buchanan, 1992; Hassi & Laakso, 2011). This is also to say that the making processes have a *conscious* purpose of converting pieces bracketed out of reality into something new and that they take their point of departure in a concrete problem to be verbalized, identified and solved. Now, if no problematic situation is identified, there is no problem to solve and hence no reason for initiating an inquiry. If the inquiring process as a design thinking tool is transferred into organization and management studies as a tool for change and innovation, the question remains whether we would see any inquiry if managers do not feel or identify a problem.

Although Dewey's philosophy about the inquiring process is used to inform design practice and, in several cases, design thinking is used as a source for innovation, it does not describe the internal life between groups of individuals, a topic that has developed within the field of organization and management studies since Weick's two earliest works (Weick, 1979, 1995a). While tacitly subscribing to the subject-object dichotomy, the design thinking literature focuses on the enquiry and overlooks Dewey's ideas about embodiment, James's ideas about fluidity and their rejection of the subject-object dichotomy as highlighted by critical design researchers (Amacker, 2017; Rylander, 2012). Thus, the design thinking literature, like the innovation literature contributes to verbalizing and pointing out 'things out there'. The latter risks creating resistance to the new,

which may be seen as a weakness of the literature, since aiming at a certain goal may, paradoxically, undermine that same effort.

3.2. Embodied knowledge

Another argument to be made in this connection is that while Dewey speaks about identifying a problem to be solved, according to Weick, organizational sensemaking processes continue to operate, whether a problem has been identified or not. Importantly, however, if the problem is identified, it may, according to Weick, already be too late to take relevant action, because the process of perception (described by Irwin as six stages from 'perception' to 'formalized') will then have been completed. In that case the initial perception will have turned into a dangerous design that will require a more substantial effort to unravel. Thus, once the problem is clearly identified, it may, from Weick's perspective, grow even more troublesome. This implies that we need to deal with or perceive what Weick terms 'cues' before they are articulated as problems. But how can we register cues if there is no language, only perceptions? Abandoning, for now the subject-object dichotomy, viewing mind and body as one coherent entity implies that embodied experience and feelings give us signals that render verbal language needless, because we may be able to identify an 'immediately felt quality' (Rylander, 2012). This is what critical design researchers highlight as problematic about design thinking in general: that it breaks human life up into thinking and doing, leaving out important qualities, including embodied knowledge (Amacker, 2017; Hjelm, 2005; Jahnke, 2013; Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013).

The points about embodied knowledge and 'immediate felt quality' underscored by Rylander (2012) articulate what Weick does not, although he indirectly alludes to it when he speaks about the human ability to register 'cues in the periphery'. His integration of Irwin's six stages into his own work further underscores Dewey's points about embodied knowledge.

Although Austin and Devin (2004) and Weick (2004b) do not write about embodied knowledge explicitly, they do write about phenomena that can be interpreted as embodied knowledge: Austin and Devin (2004) focus on helping individuals balance on 'their edges' and to act outside their 'comfort zones'. This could be compared to Dewey's idea of embodied knowledge in the

sense that moving out of one's comfort zone is not an intellectual exercise accomplished through thinking but an act driven by courage, feelings and experiences. As I read Austin and Devin (2004), performers and actors use their body in the making process and become skilled at knowing their individual emotional borders and transcending their comfort zones. In this respect, I propose that Dewey's expression about an 'immediately felt quality' corresponds to performers' experience of 'edges' and 'transcendence of comfort zones'. And similarly, that registering 'cues in the periphery' (Weick, 1993b) and 'airy nothing' requires embodied knowledge before it can be verbalized. This seems to align with Amacker's point that 'design creativity, in whatever form, is not fixed, promoted to management in a language they understand as a structured process, a set of methods or skills, or a framework for innovation. Yet, it has been well established for some time that creativity flies in the eyes of management' (Amacker, 2017, pp. 23–24).

A further similarity between points by Austin and Devin (2004) and Weick (2004b) deals with organizing, which they underscore should be done in such a way that it makes room for people to self-organize, which to Weick would mean keeping the organizational design 'unfinalized', and 'holding labels lightly'. As I see it, the latter furthermore aligns with Austin and Devin's (2004) concept of 'release', for example to 'gain access to performers' original ideas and outrageous moves' (Austin & Devin, 2003, p. 169). The latter means that we should not, nor can we even, operate on the basis of a too-finalized manuscript for (or design of) the play, because the play performed for an audience depends on individual performers' personal contribution based on their own 'original ideas', which cannot be prescribed but must rely on the performers' willingness to share their individual material. The performer has to find those ideas and moves within his or her own invisible, individual reservoir, with inspiration from his or her co-creators and the context. In Weick's version, this corresponds to organizing as a 'charm of the skeleton' and similarly refers to a way of organizing that sets individual group members' free to engage in a personal and collaborative performance, as the leader delegates decisions to experts, relying on the 'trust, honesty and self-respect triangle'.

Concluding remarks to the discussion of Part 2

In the concluding discussion of the dissertation's Part 2, my aim was to weave a theory across ontologies since I seek a theoretical conversation primarily with three separate but related fields, which also contain ontological differences. I have thus sought to establish some common ground between theoretical different perspectives. I found this discussion necessary, as reflected in my research sub-question: *How can we construct a coherent theoretical framework, drawing on management of innovation, design, and organization studies, that enhances our understanding of organizing for innovation?*

The concluding discussion dealt with how we could understand innovation, design and organization across ontologies and with the consequences of what I identified as the subject-object dichotomy as a common denominator of the literature. In extension of this, the subthemes of 'collaboration', 'the organization' and 'disruption' also play a role, because the difference between the understanding of 'the organization' and 'disruption' can be represented as the difference between fixed and fluid. Also, with regard to disruption, I found that groups subscribing to a subject-object dichotomy are more exposed to the risk of experiencing and even increasing disruptive events. Finally, the discussion about the subject-object dichotomy also addressed the theme of embodied knowledge. I proposed that Weick's work has a capacity to connect the different theoretical perspectives by reaching out to the 'real world' of disrupted groups and businesses. In doing so he links OMS with the subject-object dichotomy perspective and with qualitative research. His work thus makes it possible to bring together the three parts of literature such that a new theoretical framework is possible. The aim in this concluding discussion has been to establish that common ground by articulating a coherent multi-diverse theoretical framework.

Part 3. Methodology, fieldwork, empirical material and analysis

Introduction to Part 3

Having outlined the study and the case in Part 1, the theoretical perspectives in Part 2, I now proceed to the methodology and fieldwork, the empirical material and the analysis of it. Part 3 is thus structured into three chapters: *Chapter 6. Methodology and fieldwork, Chapter 7. Innovation practices at FintechOrg,* and *Chapter 8. Handrail-building processes and dangerous design.*

The overall aim of Part 3 is to convey how I conducted the research and what results I achieved. Thus, I first reflect on the kind of methodology that is required to conduct fieldwork, why I have chosen to present it in the way that I do, and what persons and events the text revolves around. Chapter 6 also describes the tool-dropping experiments, which led to an interesting reorientation of the study. These experiments are further elaborated in Chapter 7, in which I describe the specific engagement with executives and employees in the tool-dropping sessions. Chapter 7 moreover provides insights into the daily life at FintechOrg through interviews, observations and fieldnotes. The empirical material is analysed in Chapter 8 in light of the multi-diverse theoretical framework that was developed in Part 2 and framed by the main research question: *How can we understand the practices of organizing for innovation in the context of a Nordic fintech cooperative?*

Chapter 6. Methodology and fieldwork

The present research project is organized and carried out as an industrial PhD project. This means that a specific organization or company allows a researcher to enter its field and carry out a certain task, which both parts have agreed on. Thus, the researcher and the organization have a collective interest in the common project. However, in terms of realizing the project the organization plays a dominant role, partly because the project takes its point of departure in the organization's specific needs and problems, and partly because the organization pays the researcher's salary. The researcher, on the other hand, is responsible for writing the application to the national foundation that co-funds the project and for making sure that the particular research challenge contributes with something new to the particular research field. In this case, the organization's problem was how to handle the innovation challenge, an issue that the executives put on the agenda precisely at time when I entered the field; my research interest, meanwhile, as stated in the application, was 'design thinking as a driver for innovation'. The project is thus conducted in a close collaboration between the private organization, FintechOrg, and the university (Copenhagen Business School, Department for Management, Politics and Philosophy). As part of my preparations for undertaking the PhD project, I had sketched out the content for a possible organization. In this phase, the outline of the project was rather broad in order to make it possible for a future collaborator to tap into it, influence it, and leave its own stamp on it. Having formulated a project on 'strategic innovation' (rather than 'strategic design', which I was not sure was a part of the local business language, and which might therefore not be immediately understood), I contacted both public organizations and private companies. And after a while I chose to focus on finance, because I assessed that there was a greater interest in innovation in an industry that, according to the press, was facing challenges due to increasing competition.

In summer 2014 I received positive feedback from one of FintechOrg's executives. After three meetings with, respectively, the customer director and the director of the development department we were able to close the agreement and finalize an application to a Nordic Innovation Fund, which subsidizes industrial PhD projects. Representatives from FintechOrg's team of executives were involved in writing the application and thus had the opportunity to be

more deeply involved in formulating the project. However, a small research project in a large private organization with more than (at that time) 600 employees naturally does not occupy much of the executives' awareness nor time. Indeed, there was no deep involvement in the content of the project from the executive team, although, theoretically, there might have been.

Also, the application to the Innovation Fund is handled by an IT system, in which the applicants create an account. This can only be done through the company requesting the subsidy. Thus, officially, the host organization is the one applying for funding, and the person who is responsible for the project (also known as the business supervisor) is the one handling and processing the application. In practice, however, it is the future PhD fellow who handles the process and uploads the documents before deadline, which was also the case here.

6.1. Getting to know the field

The project was approved by the Nordic Innovation Fund on 8 November 2014, and shortly after I had a meeting with two executives and one of the middle managers at FintechOrg in order to meet, initiate the collaboration, and adjust our expectations in relation to the new mutual project. At that meeting I learned, among other facts, that the organization's mean age was around 47 years, which was considered rather high by the executives, and maybe even too high. 'Imagine that the executive team was out for some unknown time, the organization would carry on by itself. This is both positive and negative, of course,' one of the participants in the meeting stated.

Although I had planned to adjust expectations, that was not really an option. When I met my new collaborators for the first time, we only had an hour together in a meeting room at FintechOrg, and the top priority was to discuss the process more in depth in addition to simply getting to know each other as future collaborators. At the outset of a three-year project, there seems to be plenty of time, and thus, not everything needs to be said and discussed in the first meeting. Moreover, as I was invited onto the site for one hour a late afternoon, I as a guest did not feel it was appropriate to ask for more time, even though we did not get to discuss our common expectations. The meeting had a 'soft' character, with a focus on getting to know each other, and it would have seemed inappropriate, perhaps even impolite, to insist on an agenda that I had

prepared. However, the meeting was held in a positive and optimistic atmosphere with a sense of mutual excitement about the approved project. As we were about to depart, I was invited to attend a strategy meeting for a larger group of managers on 8 December; an invitation I was happy to accept.

6.2. A study unfolding 'in between'

Along the way, as the research project unfolded, I gradually felt that I was conducting a study 'in between' established research fields. Along the way the study has – as is natural for a research project – been subject to critical inquiries at department seminars, PhD courses, seminars, and academic conferences. Now and then, I was surprised when listening to reactions to my aim of investigating design thinking as an enabler for innovation in a specific organizational setting. Some research colleagues found it too normative an approach for an empirical field study. At conferences, my presentations and papers were seen as 'outsiders', for example, at a conference on *Critical Finance Studies*. Here the design and innovation focus inquiring into FintechOrg's innovation capabilities stood out from most of the contributions as somewhat thematically misplaced, as the conference was more occupied with criticizing the financial industry and did not focus on innovation in finance, as my project did. On another occasion, when I presented some initial experiences at a seminar on design and management, the participants' focus unexpectedly turned to some very concrete issues in my fieldwork regarding the executive team's relationship to the employees' working conditions and the trade union. In a managerial practice, however, this is a natural topic to deal with, which was why I did not pay much attention to it myself.

Yet, in that academic setting, this small empirical aspect turned the academic discussion away from my own focus and the material I had hoped to get feedback on. Here it seemed that the colleagues were provoked politically by the referenced debates in the field. At another conference, *The First Annual Toronto Fintech Conference*, we were only a few participants conducting an organizational study among approximately 150 colleagues presenting technological projects within the realm of the product development area. Thus, here too, the project was a kind of an outsider. In navigating research fields within finance, IT, management, leadership, organization, innovation and design, I had to choose among a broad range of

literature, methods and moments of fieldwork to follow and dwell upon, interpret, listen to colleagues and FintechOrg's employees, let things pass and first and foremost find a way to proceed.

In summary, during the research period, I often felt this not-fitting-in-ness' of the project in academia, and in many ways I found myself being positioned 'in between'. When it was all happening, I was not that aware of it, but it becomes clear retrospectively, when I reflect and recall my impressions of the different locations and situations as part of the writing process. However, I am convinced that this 'in-between-ness,' the 'not-fitting-in-ness,' has strengthened the results of the project, because it has forced me to make sense of what came up while building bridges to other fields and communities in order to create a platform from which to operate.

6.3. Research approach

The point of departure for the research focusing on design thinking as a vehicle for an executive team's innovation endeavour through active engagement with the field was modified and moved in new directions. Inspiration from many contributing voices in academic seminars and in the literature, from utterances during events in the field supported by a reflexive research approach (Alvesson & Sköldberg, 2009; Czarniawska, 2016b; Weick, 1999b, 2002) and from a process approach to research conduction made me feel comfortable within an ontology of becoming (without, however, making me an ontological purist (Weick, 1995a)). Steyaert (2012) relates Weick's sensemaking perspectives to the field of process theory and advocates for experimenting and theorizing when conducting research in organization studies. I share Steyaert's inspiration from Weick, who combines a processual perspective of organizing with reflexivity about theorizing (Weick, 1995b, 1999a, 2002, 2011, 2017), and have also taken up the encouragement to experiment in the field.

6.3.1. An ontology of becoming

Weick encourages theorists to engage more deeply in process and reflexivity, and he 'undercut[s] many of the holy cows of methodology including the whole idea of validity (…) in essence, Weick approaches theorizing as a form of sensemaking following his evolutionary model of organizing'

(Steyaert, 2012, p. 153). Drawing on Czarniawska (2003), Steyaert stresses that Weick sees organizing as 'an allegory for writing' and equally points out that 'writing is organizing' (ibid.). To Weick, language influences and limits our perception of concepts expressing it as, '(…) nouns being unwound and set in motion as verbs being wound into slower motion as nouns' (2010, 110). Concepts and nouns signal a reality, which we automatically believe in and take for granted. They are, however, only small pieces of reality, bracketed out and turned into concepts via flux and hunches.

Weick suggests that we listen to both Heraclitus – we can never step into the same river twice – and Shakespeare's character *Theseus* in the play *A Midsummer Night's Dream* – who talks about imagination and the poet creating (something) out of 'airy nothing' (Weick, 2010, 2011) – and transform those two sources of inspiration into 'you can't step into the same process twice nor the stepping itself remain the same' (Weick, 2010, p. 109). The 'process thinking' in Weick's own work is not articulated as such. Hence, it is only in hindsight that we can look at his authorship in relation to process thinking and acknowledge him as a 'process theorist'. Weick points that out himself while emphasizing the difference between a process *practitioner* and a process *theorist*.

'I am in Hari Tsoukas's words a "process practitioner" (…) That's different from a process thinker. When I look back at what I've said, I see process thinking ('how can I know what I think until I see what I say?') This means that the concept of process is as much an ex post as it is an explicit guiding principle' (Weick, 2010, p. 103).

Thus, in line with Tsoukas, Weick interprets his own previous work as *process thinking*, while in these writings he thought and wrote in opposition to the prevailing understanding of organization as a fixed and almost tangible unit. Then, supported by Tsoukas, his view of his own organizing and sensemaking perspective retrospectively becomes process thinking in a practitioner's version (Weick, 2010).

Steyaert (2012) states that Weick 'underline[s] the emotional side of theorizing. For instance, he says that theorists should be "pleased", when assumptions are disconfirmed, as a "disconfirmed" assumption is an opportunity to learn something new, to discover something unexpected (…)' (ibid., p. 153). Moreover, Steyaert, referring to Weick's inspirations from the two philosophers

Søren Kierkegaard and Martin Heidegger, points out that he 'suggests (…) a classical interpretive and phenomenological move to relate the everyday-worlds of those (humans) one studies, people who should be given a voice in scholarly representation' (ibid., 154-155). Differently put, Steyaert defines Weick's way of relating to research as interpretive, thus giving it a hermeneutic label, while he himself moves on to a more radical approach to research into organization studies.

6.3.2. Organizing a story versus writing performatively

From the above understanding of Weick, Steyaert expands his approach to organization studies to performativity including non-humans, because to him 'it is not enough to sketch or to interpret the life-world of humans; instead theorizing is a practice that adds to the world through relating to focus of desire and affect' (ibid., 155). While Steyaert continues in a direction towards process studies and organization focusing on non-representational theory (Thrift, 2007) and experimenting as theorizing and organizational and entrepreneurship research, I stay with Weick. Thus, I stay with the concept of sensemaking and writing a story, or should I say *organizing* a story, about my experience and the events in the field while staying away from writing experiments and creating figurations (Sigurdarson, 2016; Steyaert, 2012). I did, though, carry out experiments in the field, as I will show later. However, they will be integrated in my story as a whole.

A critical stance to process studies, it would be toward the idea of process *thinking* in characterizing Weick's work with a focus on the processual approach to organizations, cf. the previous debate about design *thinking* and the concept's inherent dichotomy between thinking and embodied knowledge. Both the design literature (Amacker, 2017; Hjelm, 2005; Johansson & Woodilla, 2011; Kimbell, 2011; Rylander, 2009, 2012; Stigliani & Ravasi, 2012) and the phenomenological perspective on organizations (Holt & Sandberg, 2011) stress the need to eliminate this dichotomy, which has haunted human life and ideas since Descartes. I agree with this point and find that process studies could benefit from avoiding the dichotomic language that has characterized design management and design thinking. Specifically, when we talk about 'emotional resonance' or being part of the flow as a researcher, writer and reader – a concept that both Steyaert and Weick refer to, and, as we will see later, Czarniawska and Law do too – characterizing it as 'thinking' seems contradictory.

Consequently, I will hold on to the terms *process approach* and *process perspectives.*

With regard to my own text, the aim is to offer a clear description of my impressions of and experiences in the field, to single out flux and hunches (Weick, 2011) and weave them into a coherent story – albeit, admittedly, one that freezes processes and flow in the field and which, due to a process perspective, will only give an impression of a limited time in the past. I feel, though, that such a text will best serve and make sense to the people in the field who might not have the time and energy to learn about or tangle with process theory and figurations as written performativity. I will hence make an effort to provide 'handrails' (Weick, 2003a, 2004a) from my insights and learnings to the reader while sharing and making sense of my story. It will of course be a story told from my particular perspective. I will, however, do my utmost to allow multiple voices to speak and influence the story. This also means that my text about the field will perform in many ways depending on the individual reader. Or as Helin et al. (2014) put it, drawing on Nietzsche and Whitehead:

'A processual way of relating to the world is revealed already here: how something becomes determines what it is (i.e. that it becomes). It therefore never 'is' in a fixed way. Its being is its becoming' (Helin et al., 2014, p. 12).

This means that we might say that we are, but a process approach to life will say that we are always becoming, regardless of the words we use to describe our existence. For the reading of my story, this means that while I think and feel that I am making sense of things, I can only do that for myself in offering a snapshot of organizational life, bracketing flux and flow at a certain time in history. Although I will strive to make sense for the reader by keeping the reader in mind as I write, I cannot be sure that the reader will catch my story the way I intended. The reader may thus make his or her own stories out of my text. This is beyond my control – out of my hands. Or as Helin et al. (2014) state:

'(...) Nietzsche stressed that whilst he had his way, all others must follow theirs, recognizing that your thinking is part of the world and its becoming, that you are following things in life, that you want to actively participate in moving human life beyond its inherited boundaries, and all this requires a different gaze and the courage to make your way' (ibid.).

From a writing and reading perspective, this means that the reader makes his or her story out of the text at hand. When the words have flowed out of my pen, I can reflect and rewrite, but, again, with regard to the present text, I cannot be sure that the reader will experience and interpret my words the same way I did when writing and as I wanted them to be read. 'Projects at the top and bottom differ dramatically, as do readings of the same events'[51] (Weick, 1995a, p, 27). Hence, according to Weick, an author cannot expect his or her words and story to be understood in the same way and with the same intention as it was written.

6.3.3. Making sense of this text

Another source of inspiration for Weick's process and sensemaking perspectives is William James' concept of 'pure duration', which supports his account of how sensemaking works and how it has implications for identity. 'Pure duration' can be described via James' 'image of "stream of consciousness"' in line with Alfred Schutz, who states that pure duration is 'coming-to-be-and-passing-away (…) [and] has no contours, no boundaries, and no differentiation" (Schutz, 1967, p. 47)' (Weick, 1995a, p. 25). To Weick this means that we, for instance, cannot speak about experience in plural, as that would imply that the way we are (becoming) in the world is chopped into pieces – and as he remarks: '(…) pure duration does not have this quality' (ibid., p. 25). Hence, experience only exists in the singular form – the only way to get the impression of experience 'is by stepping outside the stream of experience and directing attention to it. And it is only possible to direct attention to what exists, that is, what has already passed' (ibid), which again means that reflections and meanings are and can only occur retrospectively. This, as we will see later, is in line with Tim Ingold (2014) and John Law (2004).

Weick also states that speaking of a sensemaker in the singular form is a trap, because we have many identities, as expressed in Pablo Neruda's (1968) poem *We are many* (Weick, 1995a, p. 18). He brings this up when he refers to the rhetorical question, 'How can I know what I think before I see what I say?' stating that this sentence contains four pronouns pointing to *the* sensemaker, although he or she must by definition be interpreted as *four* sensemakers. Furthermore, when

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[51] Weick refers to Gephart (1992, pp. 119–120), who studied how accidents have been investigated. Here he found that top management's interpretation differed from that of the 'operators themselves' (ibid.).

we make sense of what faces us, we engage in a process that will always be grounded in our identity.

This point of view has consequences for language, organizing and making sense of writings and readings (as well as the organization). As a writer I might strive towards a coherent story, but I might simultaneously overlook one or more of my 'mes' – both in interpreting my empirical material and in writing about it. Hence, both I as interpreter and writer and the reader may have difficulties dealing with this equivocality. As Weick puts it, 'a mutable self may cause problems for "consistency of one's self-conceptions," unless flexibility, mutability, and adaptability are themselves central elements in that self-conception' (Weick, 1995a, p. 24). Following this, my interpretation of the field, my writing about it and the reader's perception of it also depend on identity construction – how the reader understands him- or herself and his or her role in reading the text determines his or her experience of the text and the way he or she make sense of it.

I see both the writing process and the reading process as organizing a meaning that makes sense to both me as writer and the reader. However, this will be different meanings, because we have each our constructed identity and experience to connect the content of the text to. This of course also counts for my reading and analysis of the empirical material as well as writing it up. It is a sensemaking effort:

 'Although content is a key resource for sensemaking, of even more importance is the meaning of this content. And that meaning depends on which content gets joined with which content, by what connection. Content is embedded in cues, frames, and connections. These are the raw materials for sensemaking' (Weick, 1995a, p. 132)

In my story, I have joined some content with other content, making connections between it, and there will likely be some readers who are not going to see these connections, while others might see them. I think this is the fundamental condition for writing up empirical content. I must accept that I cannot control the connections the reader will make as he or she engages with the content. Consequently, this means that first, the text was developed in collaboration with the field, as we acted, moved and experienced together. As Helin et al. (2014) state, 'There is little distinction to be made between researcher and researched in a relationship that belongs to the world,

describing it carefully and without reference to an external, objective, detached "being"' (Helin et al., 2014, p. 12). Moreover, in accordance with Weick's interpretive approach to texts and language, I have focused on employees', managers' and executives' narratives during interviews and events. In Chapter 8, using examples reflected in the theoretical perspectives of the dissertation, I retrospectively show how I interpret and make sense of the stories through the narratives and language that were used. In any case, however, with regard to the present text, I will be the one tying the content together and hence also attempting to make sense of it. In so doing, though, I acknowledge that my interpretation can only represent a single brief moment of FintechOrg's organizational life, which has certainly moved on since I left. As stated by Helin et al. (2014), I can only make a short provisional imprint of world that I have studied:

'We see no point in pressing an artificial Stillleben model upon the world and examine how we can make it fit. Here we can take inspiration from Cézanne who, forever assiduous in developing technical skill and attentiveness, and who remains in amid things sur le motif, paints movement and intensity presented entire (without pre-designed, stable elements). At its own ground process research is work that transforms this world to the extent that in studying we imprint the provisional world we experience in and on our bodies and make it part of the coming to be' (Helin et al., 2014, p. 12).

I see my story as an imprint of 'the provisional world' that I have experienced in and on my body. It will furthermore be released into the world and become anew as new readers make sense of it in their own way.

6.4. The research process

There was no explicit agreement between myself and FintechOrg about me being embedded in the field exclusively as an observer. Instead, I was invited to act right away when I met the field on the site. Hence, it became immediately urgent to learn to navigate between different actors' agendas and to negotiate access to meetings and observation opportunities. As stated by Svenningsen (2002), access to a field is not a formal permission given once and for all for a given research purpose; instead, the fieldworker may need to negotiate spontaneously on the spot or in unforeseen occasions. Thus, fieldwork is also about politics and a variety of personal agendas or, as Van Maanen puts it, 'Even when studying professionals, elites, or high-ranking organizational members, the fieldworker inevitably must come to terms with the situational

dictates and pressures put on, expressed, and presumably felt by those studied' (Van Maanen, 2011, p. 220).

For example, I was encouraged to pay attention to what went on in the team of executives who gathered once a week: 'If I were you, I would take a close look at what is going on in that team right now …' This was said with a smile and in a nice way by one of the team members, while the person had one foot out the door, heading to the next meeting. I heard it as kind encouragement without any judging attitude, although the person did not follow up on this invitation later; however, I did feel a certain pressure nevertheless.

Since the aim of the project was to conduct research on strategic innovation, I was interested, among other things, in observing the executive team's weekly meetings and in shadowing and interviewing them. I understood the concept of *strategic innovation* as innovation initiatives purposely decided and led by the executives of an organization. Hence, studying and interacting with an executive team that clearly had put innovation on the agenda seemed an ideal match. The concept of *strategic innovation* was one that could be communicated to the executives; hence, I preferred it to *design-driven innovation* or *strategic design*, which would have been more in line with my research interest, as discussed earlier. On 21 April I attended the weekly meeting in the team for the first time to observe the meetings. The following six months, only interrupted by courses and the summer holidays, I attended the meetings as a participant observer concurrently with interviewing managers and employees in general.

Yet, having approached the field with insight into the tentative literature on theoretical perspectives, encountering it in real life required some reflection on the project as such and on the literature. Moreover, discussions of the project with colleagues in the PhD courses made me doubt the design approach to innovation and management in general and instead recognize the suggestion of taking a design approach to management and innovation a rather functionalist stance, an asymmetrical research approach to management and business. Hence, my motivation to continue to rely on the literature on design thinking in the management discourse disappeared

along the way, while I brought in new literature that I encountered through readings in PhD courses.

In mid October 2015, I gave a presentation to the executive team, including showing them some specific events that materialized during my observations in the field and in interviews. I also disseminated research literature on innovation, disruption, hypercompetition and organizational entrepreneurship. In order to document my observations, I had taken quite a few pictures of meetings and events, saved documents and email communications, recorded interviews and written field notes. At that time (from January to October), I had registered a number of ideas or examples of ingenuity among the employees based on what they said in interviews or what was expressed through informal emails, events or stories. Some examples minor events that occurred during a day: the entire department and I received an email from a person in the department who missed her sausages and steaks, which had been stored in a common refrigerator in the printing room in the building; another day, I encountered a display of homemade socks on a coffee table next to the coffee machine along with a list and a pen where people were invited to place an order by leaving their name, shoe size and desired number of socks and colours; also, I received an email in which the sender encouraged colleagues to act in a certain way inside FintechOrg's buildings during the annual music festival in the local area – reminding us that the baths were only for employees, that guests had to pay their own way in the canteen, and that children of employees only had access together with their parents.

I interpreted these events and utterings as platforms for creativity, as organizational interstices (Hjorth, 2005) and as a kind of cultural and creative energy. Simultaneously, in interviews one of my interviewees told a story about employees' ideas and work that needed to be 'sold' to the organization's decision makers through an external PR agency, which the interviewee found somewhat absurd. Having developed a service and tried in vain to convince FintechOrg's decision makers to put it into production, the interviewee and colleagues made a new attempt by engaging the PR agency. Thus, the organizational creative energy was dampened (from the interviewee's perspective) by an absurd filter, and although the event had occurred years earlier, it still affected him.

I connected those initial impressions of the organization into a story that I presented to the executive team. This gave them a view of organizational life that was unknown to them, or which they had not, to my knowledge, talked about before. At this meeting, besides presenting innovation literature, I also presented Karl Weick's perspective on tool dropping. The team's reaction to and discussion of the topic made me suggest that they set up a 'tool-dropping workshop' inspired by Weick (Weick, 1993b, 1996, 2007), the literature on disruption and hypercompetition (Biedenbach & Söderholm, 2008; Christensen, 2000; Christensen & Rosenbloom, 1995; D'Aveni, 1995; Henderson, 2006; Sull, 1999) and on organizational entrepreneurship (Hjorth, 2012b). From my point of view, at that time, the literature reflected the stories and observations in the field, and it could thus provide information about the research literature's perspective on the situation in the field.

After my presentation at the meeting, the following discussion with the executive team revolved around whether my presentation and the presented literature could be related to innovation. One participant felt that perhaps the project had turned away from its original topic, which was seen as technological innovation, and was now focused on leadership development. However, I had never formulated or communicated the project as focusing exclusively on technological innovation – instead I had communicated it as a project exploring the relationship between the executive team and the rest of the organization regarding innovation.[52] However, as discussed before, we cannot make sure that our readers (or collaborators) share our perception of information, texts or stories, and so I must respect and address the understanding that emerges.

As a fieldworker one sometimes simply needs to make a move because an opportunity arises or due to timing or expectations. I was for quite some time in doubt and uncertain about whether I should show the different events and artefacts I found in the field, as outlined above. My concerns revolved around the possible inappropriateness of showing socks, disappeared meat products etc. to the executive team. However, I found it interesting at the time due to what I saw as cultural energy, a courageous organizing of activities parallel to organizational purpose – to support their

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[52] In the application, the project was entitled 'Strategic innovation as the relation between design driven organizational processes and the management perspective'.

clients with IT systems. Of course, I may have provoked the team members. I was aware that naïvely reporting what I saw and heard may have surprised the team. It was not material that a HR or consultancy report would cover or, as put differently by Van Maanen:

'(…) there is a good deal of child-like if not blind wandering about in the field. Cultural oversights, misunderstandings, embarrassments, and ineptitudes are common.' (Van Maanen, 2011, p. 220)

Who was misunderstanding whom with regard to innovation at the above-mentioned meeting is difficult to assess, and perhaps it is merely an example of multiple meanings and interpretations of my initial words and texts? Nonetheless, I felt slightly child-like and blind. On the other hand, I also expected that my presentation would spark discussion. While preparing it, I debated with myself whether I should mention the emails or show the picture of the socks and the email about the missing meat products. I chose to do so because I found it a remarkable sign of a life and culture lived parallel to the formal organization and being fed by it. Also, it was an open and apparently accepted parallel organizing that, to me, revealed innovative initiatives driven by joy (the knitting of socks), utility (shopping for meat during a break [53]) and trust and courage (inviting friends to lunch and baths during the annual nearby festival). However, as parallel private organizing FintechOrg did not benefit from it, besides allowing the employees to have a good time.

After the presentation, I sensed some restlessness among the team members, and I had to argue for the project again and sort of renegotiate it, although we had agreed on it months before I entered the organization. 'We want to get as much as possible out of you,' was a statement that one of the executive team members uttered, and which I often heard repeated and absolutely understood and sought to respect. Others, though, found my presentation interesting and important and backed it up. It had not been easy to arrive at a date for this meeting where I could present my work to date. The meeting had been postponed once, because one of the six members of the team was ill that day, and another was on holiday. I discussed it with Hans who wanted all the members to be present during my presentation, and so we decided to postpone. Next time,

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[53] I learned later that at regular intervals a so-called meat-van stopped by FintechOrg for a few hours around lunch time during which time employees could buy all kinds of meat.

when I arrived at the meeting room, and everybody was gathered, I learned that on that day, unfortunately, Hans himself was ill. We nevertheless decided that I would give the presentation to the team and then to Hans another day when he was back at the office. After the meeting where I gave my presentation, it was suggested to me that I engage more deeply in 'stakeholder management.' I was not quite sure what the consequences would be if I did not do this, or if I did not do it the way they had intended.

Some weeks later, I gave Hans the same presentation. He, too, found that I should focus more on 'stakeholder management'. However, he was interested in my views on the organization and also in the proposed experiments. The feedback from the different team members (including the feedback from Hans) about paying more attention to stakeholder management led me to organize a new meeting with the team member who had expressed concerns about the value of my research for the organization. For this purpose, I conceptualized three experiments, which matched the strategic focus of the organization communicated by the executive team. I proposed three different experiments: 1) a tool-dropping workshop with the executive team, 2) a design thinking course and 3) a design thing (Bjögvinsson, Ehn, & Hillgren, 2012) – the latter a kind of a workshop where citizens, industry and bank advisors could come together, organized together with a member bank. When the three experiments were settled in autumn 2015, a new phase in the project began, and there was no need for further negotiations. The focus was now on conducting the three different experiments, of which only the tool-dropping experiment is included in the chapter.

As mentioned earlier, I had planned to conduct design thinking workshops with the executives at FintechOrg. However, this plan became increasingly pointless. In part because I had begun to doubt the concept, based on my own ontological and epistemological approach to research, and in part because it would have required an extraordinary effort from me as researcher to convince FintechOrg's executives to enter a field that was so alien to their everyday activities, despite the outspoken aim of getting 'as much as possible out of [me]'. It would have required me to push the executive team even more than I already had, both in terms of access and in terms of the time they would need to spend on presentations, meetings and interviews. Thus, when I found

that there was a much greater interest in the tool-dropping workshops, which were, furthermore, well aligned with my own research position, I chose to allow myself be absorbed by the flow, as I will account for later. The design thinking workshop that I did hold was instead targeted at employees in general. However, since my research focus is on the executive team and their decisions, I have decided to leave out the design thinking workshop from my dissertation. Instead, I considered it part of my agreement with FintechOrg, which included my commitment to provide specific contributions to the organizations during my fieldwork. The latter is also part of the industrial PhD framework, which requires the PhD fellow to teach or carry out other types of work for the organization instead of teaching at the university, which is part of a traditional PhD fellowship.

This also means that the everyday life of the PhD scholar is divided into two different kinds of workplaces, which can be demanding, as one has to deal with different cultures, different sets of expectations etc. However, awareness of this issue supports the fieldwork. Another important capacity for the researcher is the ability to establish and maintain a good working relationship with the persons in the organization that her or she collaborates and engages with. In my case I developed good professional and personal relations with the executive team, which has also, presumably, benefited my working process and thus, ultimately, the outcome. Industrial PhD scholars must have a company supervisor. In my case, one of the executives took on that role, which may have facilitated my access to meetings with the executive team. On the other hand, I am not entirely convinced whether that was indeed the case, since along the way I often had to negotiate access to meetings and interviews. In general, however, I succeeded in establishing a good relationship with the executives, which was crucial for my ability to conduct the research in the way I did. This is not to say that it has been easy! In order to gain access to various kinds of meetings, I actually had to push harder than I felt was appropriate. As a related issue, due to my relationship with the business supervisor I have not included him in interviews, since I found that this dual role would have invalidated my research process.

6.5. In the field

While the *Social Construction of Reality* (Berger & Luckmann, 1966) is a common denominator for social scientists (Knoblauch & Wilke, 2016), ethnography is a dominant method for organizational researchers, who have 'poached among anthropologists,' borrowing their research methods (Czarniawska, 2012). Ethnographers' method originated in the academic field of anthropology and may be best known as a method for the study of 'exotic natives' in unknown and foreign countries outside the boundaries of Western 'civilization.' The anthropologist Bronislaw Malinowski (1884–1942) became widely known for his field study of original peoples in, for instance, Papua New Guinea during the interwar period. His idea was that being immersed in the culture as a *participant observer* made it possible to 'grasp the native's point of view' (Sigurdarson, 2016, p. 84). His work is often expressed through pictures showing him surrounded by so-called natives – the white male among half-naked coloured people at sites and villages constructed out of natural and wooden materials. Today, however, anthropologists and ethnographers take a more critical view of researchers' ability to grasp any reality outside their own, and Malinowski's work has since been deemed imperialistic and characterized as racially prejudiced (ibid).

6.5.1. Doing ethnography

Doing fieldwork in a given organizational setting adds to the complexity of the social scientist's work, and we need to pay attention to the asymmetrical power relationship between the fieldworker and the environment's inhabitants. Tim Ingold argues that it does not make sense for social scientists to speak about ethnographic studies, as we can never grasp any so-called reality due to 'temporal distortion': '[i]t is as though, on meeting others face-to-face, one's back was already turned to them. This is to leave behind those who, in the moment of encounter, stand before. Two faced indeed!' (Ingold, 2014, p. 386). In a similar vein, Barbara Czarniawska points out that '[o]bservations can occur only at a distance, establishing distinction until they become paradoxical. Then it is time to drop the observer's stance to come closer and start acting' (Czarniawska, 2015, p. 109, 2016b, p. 616). To Ingold it is important to differ between 'intersubjectivity' and 'correspondence'. Intersubjectivity covers the condition of 'living with others intentionally', while correspondence means that relations carry on along a 'current path'

and are always in the making. To put it differently, and in line with Weick and process theorists, we are always on our way, not beings but becomings. Ingold recommends social scientists to work in the field as participant observers: (…) 'to join in correspondence with those with whom we learn, among whom we study, moving forward instead of back in time' (Ingold, 2014, p. 390). Thus, he underpins his perspective on knowledge production as co-production, where ethnography becomes educational correspondence of real life and where researchers should melt into the field and learn by, together with and in collaboration with the people they study.

John Law (2004) sees the anticipated world as divided into parts captured in ethnographies, histories and statistics; he argues that if we are able to capture parts of the world into ethnographies, histories and statistics they are 'distorted in to clarity': 'If much of the world is vague, diffuse or unspecific, slippery, emotional, ephemeral … then where does this leave social science? How might we catch some of the realities we are currently missing?' (Law, 2004, p. 2). Due to the messy 'ephemeral and elusive reality' we need to teach ourselves to think, to practice, to relate and to know in new ways. Moreover, Law offers possible new ways to approach knowledge – namely through 'hungers, tastes, discomforts, pains of our bodies. There would be forms of knowing as embodiment, knowing as situated inquiry' (ibid.).

The embodied form of knowing is accentuated by words too. Weick finds resonance for his own thinking in the work of the philosophers Søren Kierkegaard and Martin Heidegger (Weick, 1999a). The famous quote by Kierkegaard that 'Life must be lived forward but can only be understood backwards' makes Weick see and express a gap between forward living and backwards understanding.

'Living forward is a blend of thrownness, making do, journeys stitched together by faith, presumptions, expectations, alertness, and actions – all of which may amount to something, although we will know for sure what that something may be only when it is too late to do much about it' (Weick, 1999a, p. 135).

Moreover, Weick distinguishes between the stance of the spectator – as 'present to hand' – and that of the agent – as 'ready to hand'. While the spectator can only find him/herself at a distance from reality of the agent, the latter is embedded in her or his reality in an *embodied manner*.

Heidegger refers to 'ready to hand mode of engagement' in which no separation between objects and subjects exists: 'Heidegger refers to "absorbed coping" as a ready to hand mode of engagement,' Weick states and explains that this is a mode where people are aware of 'the world holistically as a network of interrelated projects rather than as an arrangement of discrete physical objects such as tools' (ibid.). Yet, if one of these 'projects is interrupted, the experience changes into an 'unready to hand mode of engagement.' Only when we step back and reflect and enter the 'present at hand mode of engagement' does what we have observed become general and abstract, turning into independent tools and artefacts, which are context-free (ibid.). This may equal what John Law (2004) observes and refers to is as 'distorted into clarity.'

There are different 'hand modes' in play here, reflecting the ethnographer's dilemma as an observer who is at a distance among the 'natives' in a 'present-to-hand mode of engagement.' The fieldworker needs to reflect, which can only be done in the 'present-to-hand mode of engagement' and thus becomes detached from the observed reality, which immediately becomes the past. Going with the flow, letting oneself be absorbed by the process, one follows the 'ready-to-hand mode of engagement,' which, however, dissolves as soon as one enters the 'present-to-hand mode of engagement for the needed reflection and, following Ingold, '[i]t is as though, on meeting others face-to-face, one's back was already turned to them. This is to leave behind those who, in the moment of encounter, stand before. Two-faced indeed!' (Ingold, 2014, p. 386).

In summary, Malinowski's idea that as participant observers we can 'grasp the native's life' has since been undermined. Instead, we can create and construct a life together with the inhabitants of our research field. Czarniawska (2015), for instance, suggests management and organizational studies to be performative. Performativity as a concept has been used by organizational scholars as a way of critically pointing at the performative impact of society of the field of economy.[54] In line with Gergen (2014), Czarniawska claims that social science should act and 'create crowded agoras where important issues can be debated' instead of holding back and simply being critical (Czarniawska, 2016a, p. 317). In line with Czarniawska, the process theorists propose a similar performative research conduct. As I will show in the following, I have taken this encouragement

[54] See for example Fabian Muniesa *The Performative Economy*, 2014.

up and performed as researcher together with employees of FintechOrg, albeit not as planned actions but following an experience of a new way.

6.5.2. Commencing the fieldwork

Now, returning to the field and the meeting for some of the managers in December 2014, to which I was invited a month before. This was my first real encounter with the organization and its employees. It took place at a hotel slight outside the city where FintechOrg was situated. The meeting was supposed to continue for a day and a half, so the employees spent the night and continued the meeting the following day at 8 a.m. I did too. On day one, the meeting began at 9 a.m. I showed up approximately an hour earlier, checked into my room and then attempted to find some of the very few people I knew at FintechOrg.

Initiating the fieldwork is like beginning on a new job, except that one does not have potential collaborators directly involved in the project, as one would in a traditional new job position. The fieldworker enjoys the privilege of entering and exiting the field according to his or her own plans, while simultaneously 'customarily act[ing] as if it is not true' (Van Maanen, 2011, p. 219). Thus, I felt more like a guest than as a new 'actual' employee, although I strove to embed myself in the field. When commencing a new job, one meets future colleagues, is introduced to the job and the tasks, and soon, one is embedded in the organization and about to take responsibility for one's new tasks, which are often somewhat similar to one's previous job. The fieldworker does not have colleagues in the field (unless, of course, he or she is part of a research team). Instead, the fieldworker is observing 'the locals', which they might notice and feel uncomfortable about.

On 8 December 2014, I sat down at a table in the hotel's dining room where I met employees, introduced myself to people I had never met before and sought simply to 'hang around' (Van Maanen, 2011). Some were curious about and interested in the research I was about to engage in, while others were more surprised. I picked up some coffee and bread, chose a table and explained my new job at FintechOrg: conducting research on 'leading change and innovation,' which entailed being in the field for one-and-a-half year, observing, interviewing employees and studying the organization and its industry; the latter through daily newspapers and similar official

publications within the financial sector. I was received positively, and some remarked that it was quite 'timely' that the executive team took an interest in innovation.

After finishing my coffee, I followed the employees (they were all employed by FintechOrg in positions as middle managers) to the meeting room, where I met one of the executives, Christopher (who was engaged in the project as company supervisor). He and Hans (the CEO) were talking, preparing the meeting for around 40 middle managers. I approached them and met Hans for the first time. He welcomed me in a way that made me feel he had a sincere interest in the project, perhaps because he took his time and listened to me, and so I got the impression that he was listening. Of course, I don't know if he really did. After a short while, everybody was gathered in the room, and the meeting began. It turned out that there were several newcomers, and that there was a tradition at these meetings of new managers introducing themselves. From this very short session, I learned that FintechOrg had hired an innovation manager, and that this was a new position in the organization.

Among other topics, the seminar had innovation on the agenda, and at this point of the agenda I was encouraged to offer a research-based view on innovation. However, I was not directly invited to speak. Instead, the introduction was more like, 'we have an expert here,' and I was told that I was welcome to add to the topic if I wished. I was a bit taken aback, since we had not talked about this beforehand, so I had not prepared anything. Moreover, I certainly did not see myself as an expert, nor did I have any confidence in the field at this very early pre-stage of the project. Hence, during the first break I approached Christopher and Hans and told them that at this very early stage of the project, I did not think I could contribute to a professional (and research-based) understanding of innovation. Moreover, I said that it would be better for the research project if I could simply be a part of the organization for a while, without giving any presentations at this early stage. Actually, I did not feel that I could present anything of interest at this time. In addition, my plan was to work inductively during the initial part of the fieldwork, so I was not prepared for engaging with the field right away. They seemed to understand and agree with me; however, as Van Maanen states '[t]here is no Archimedian point of Enlightenment – a scientific view from nowhere – to allow us to know with any certainty what others are thinking and feeling' (Van

Maanen, 2011, p. 227). Hence, I cannot know how they related to it and what they made of the incident. On the other hand, in spite of the limitations we bring to the others' field, a part of the fieldworker's job is nevertheless to 'try to understand and grasp another's perspective in and on the world(s) he or she inhibits – the so-called native's point of view' (ibid.).

Van Maanen discusses this dilemma, stating that although we as fieldworkers should not be 'mind readers', we 'do have a storehouse of raw materials – words and deeds – from which to develop a rendering of the native's point of view.' (Ibid., p.234). Moreover, he refers to Geertz (1986, p. 373), who points out that although we do not have access to someone else's inner life, we can glean it from their 'expressions.' Van Maanen states that a technique generating natives'

'point of view is by using closely edited quotations along with culturally specific and commonly used terms, slogans, labels, categories, slang, jokes, and the like to convey to readers that the view put forward is not those of the ethnographer but are rather authentic and representative remarks transcribed straight forward from the horses' mouths.' (Ibid., p. 233).

This leads me to reflections on interviewing, taking my point of departure in Helen's view on FintechOrg. The reason for that is that she draws a picture of the organization very close to the time when I entered the field. She thus represents an employee's depiction of FintechOrg at that specific time and gives us an idea and understanding of the organization I encountered. She was then one of my first encounters in the organization, and our meeting marked a sort of entrance to the interviews.

6.5.3. Interviewing

Interviewing is not a new discipline but one that can be traced back to ancient history. As a knowledge-generating discipline, it is only within the past few decades that it has grown into a research field. (Kvale, 2007).

'In a postmodern epistemology the certainty of our knowledge is less a matter of interaction with a non-human reality than a matter of conversation between persons. Knowledge is interrelational, interwoven in webs of networks' (Kvale, 2007, p. 21).

In an interview process, knowledge is composed through linguistic interaction, where the participants' dialogues, structures and effects of their discourse are in focus. The interviewer gets access to multiple local stories that open up 'the meaning of the lived world' (ibid.).

As an interviewer I cautiously paid attention to the asymmetrical relationship between myself, as interviewer, and the interviewee that naturally emerges in the dialogue between researcher and 'informant'. Moreover, I attempted to be as clear as possible about my intention, the research project and the questions in order to observe general ethical research rules of engagement. Kvale draws attention to the metaphor of the interviewer as either that of a miner or that of a traveller on a journey. While the miner carves out knowledge from a mine with certain tools and means, the traveller returns from his or her journey with a story where we as audience can clearly identify the writer. Interviews can be planned in a questionnaire format, which would be recognizable as a *structured* interview, while a *semi*-structured format is looser and more open. The latter was the format I applied in the present project. The interviews were semi-structured, meaning that I only had two main questions beforehand: first, I wanted to know how the employees of FintechOrg viewed innovation in a broad sense and, next, how they regarded innovation at FintechOrg in particular. Second, I wanted to know what they could tell me about banks or, more specifically: what is a bank?

These were the initial questions where the individual interviews (or, according to my intended symmetry, "conversations") took their point of departure and went in different directions depending on the interviewees' answers and perspectives. Some interviewees were surprised that I asked about their views of innovation instead of offering them the answer. The interviewees did, though, have a great deal to say about innovation.

During the field study, I interviewed four executives, twelve middle managers and eight employees. The interviews were conducted across the period of general fieldwork – from January 2015 until summer 2016 – and subsequently coded using the software program 'NVivo' along with other empirical material guided by the research question. In the coding process I focused for example on how innovation was understood and carried out and what I registered as innovative

behaviour, such as 'getting bank B on board', Petter's story about the mobile payment solution that failed, hiring an innovation manager and improvising – to mention a few examples. However, along with innovation themes the issue of time constraints also emerged, which was why that became a headline in Chapter 7: 'Controlling time'. Furthermore, when I got answers to my question about what constitutes a bank that I did not expect, and which made me wonder, that theme, too, was given its own headline: 'Present and future banking'. These categories sprouted additional sub-categories. Innovation, for instance, was further broken down into the subordinate themes of 'definition' and what was otherwise expressed as 'innovation inertia' and 'resistance'. As mentioned earlier, besides interviews, observations and shadowing, I carried out two experiments focused on tool dropping, which I describe in the following.

6.6. Experimenting in the field

As I have announced earlier, I carried out experiments or 'tool-dropping workshops' in continuation of the presentation for the executives in October 2015, and the following agreement about my contribution to FintechOrg, while being in the field. The aim was to explore, together with the team, what certain tools meant to them, and what would emerge from such a discussion on innovation. Below I describe the background for the experiments, while Chapter 7 demonstrates how they were carried out in the field. The idea was inspired by some of Weick's texts in which he encourages scholars to rethink management education and recommends that managers in general reconsider their tools in order to increase agility and wisdom; for example, as he puts it in 2007:

'Learning to drop one's tools to gain lightness, agility, and wisdom tends to be forgotten in an era where leaders and followers alike are preoccupied with knowledge management, acquisitions, and acquisitiveness. Nevertheless, human potential is realized as much by what we drop, as what we acquire' (Weick, 2007, p. 7).

Weick reflects on what he sees as a gap between the 'ready to hand mode of engagement' and 'the present to hand mode of engagement' (Weick, 1999a, 2002) and relates this gap to the story about Mann Gulch (Weick, 1993b), the puzzle about why the fire workers lost their lives when their tools were found so close to their dead bodies. He focuses on tools because one possible explanation that he proposes is that they might not have recognized their tools as tools, and that

their leader should have helped them look behind the project of supressing the concrete fire by suspending that project, creating a defining moment and, from here, outlining a new project. It is through this 'resetting' of the project (for example the suppression of fire) that a leader supports his or her employees (or volunteering firefighters), which implies an acknowledgement of an 'unready to hand situation.' In other words: that something important is not working anymore: 'Tragedy may occur when projects lose their form and relevancies disappear from the ready to hand' (Weick, 1999a, p. 137). In other words, it is the responsibility of a leader to stop an ongoing project, whatever that might be, and acknowledge a new situation that calls for a response.

6.6.1. Tools, small cues and signs

According to Weick, tools can be abstract as well as concrete. They may be, for example, ideas, diagnoses, treatments, routines and ways of organizing, gloves, saws, water boxes, shelters etc. (Weick, 1993b, 1996, 2007). Weick's work on tools as limitations for agile behaviour emerged through his study of the collapse of sensemaking during American wildfires, NASA disasters and accidents at hospitals. He found that things went wrong when people followed procedures and routines without reacting on small and tiny signals of change in the periphery of the ongoing project that they may nonetheless have noticed. If firefighters enter a forest to contain a fire, and they are told that this is just 'a 10:00 fire' (Weick, 1993b), they would be less likely to register the small changes that might turn a manageable situation into a dangerous one.[55]

Weick points out how 23 firefighters have died since 1990 (Weick, 1999a, p. 136) when fleeing from the exploding fire, and he discusses how astronauts have died on the NASA space programme, and how patients have received the wrong treatment due to misdiagnosis. Every professional, being convinced that what he or she sees is a normal situation, simultaneously entails a possible danger due to small cues and signs that are not noticed and thus go unaddressed. Changes in our environment may be difficult to notice if we do not pay attention to, are sensitive to or have access to stimuli outside the known world, which we are unable to see without accepting that 'things of the world go away' (Weick, 2009, p. 244) or that, 'Seeing is

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[55] As mentioned before, a '10:00 fire' is a term firefighters use to indicate that a fire would be extinguished by ten o'clock the next morning.

forgetting the name of the thing seen.'[56] However, this is indeed a difficult task. How should it be practiced in the everyday life of a business? In an attempt to explore this, I conducted experiments in the field.

6.6.2. Absorbing the flow

Two other experiments, which I initially paid much more attention to, were planned. Having completed the tool-dropping experiments, I was about to follow that plan and thus leave behind tool dropping as an answer to the utterance earlier about 'getting as much as possible out of me,' as a 'mission completed.' To me at that time, the tool-dropping experiments had nothing to do with the concept of design related to the aim of the project. However, a feeling emerged due to the resonance and feedback from the field that it might be worth devoting more attention to the tool-dropping experiments due to the immediate success and resonance. I decided to recognize the resonance as a 'defining moment' (Weick, 1999a, p. 137), which Weick describes as a turn from a given 'project' to a new one, especially because a few days later I was asked by Hans to conduct a similar experiment with the middle managers at their monthly meeting.

I was surprised by this turn myself. When it took place during spring 2016, I experienced a sudden interest and engagement from the employees at FintechOrg, which was tempting to follow and difficult to let go. These events and considerations also contributed to my decision to abandon the design thinking experiments. I chose to 'absorb the flow' (Steyaert, 2012) in an attempt at 'capturing the process' (Maitlis & Christianson, 2014).[57] In the second tool-dropping experiment the time span was reduced to two hours; however, the same method was used, although it was revised to match the setting of having a much larger group and a shorter time span. The number of tools that I allowed the team to propose were now limited accordingly. I had already introduced myself to the group of middle managers in December 2014 and in January 2015, so the middle

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[56] Weick often refers to the American artist Robert Irwin, here quoted through Lawrence Wechsler: *Seeing Is Forgetting the Name of the Thing One Sees: A Life of Contemporary Artist Robert Irwin* (1982) p. 180. (Weick, 2004b, p. 41). What Weick stresses is Irwin's capability to express the micro-processes that turn human perceptions into conceptions.

[57] As said before, I nonetheless carried out the other planned events as a part of my agreement with the executive team – a design thinking workshop with employees and a design thing experiment, inspired by Bjönvigsson (2010) with a member bank. We did not accomplish the latter, however, as the member bank withdrew from the experiment.

managers knew that research was being conducted at FintechOrg. However, as new people were hired continuously, it made good sense to be introduced once more, which Hans did before I began my presentation about the project and the following experiment. As he introduced me, Hans remarked with a smile that I was the one walking around asking what a bank was.

During the experiment, the participants were asked to write down three tools in seven minutes relating to the questions, What tools do I/we have as managers? What tools does FintechOrg have? Next, based on group discussions, the participants were asked to examine what it would mean to them to drop seven out of fifteen tools,[58] based on the following sub-questions: What do you use them for? What value do they give? How old are they? And finally, in a plenary session, each group was asked which tools they dropped, why they were dropped, and what that meant to them.

Like the executive team, the middle managers, too, engaged in the experiment without reluctance or guardedness. The hum of conversation spread throughout the room, as they worked with focus and commitment in the groups, now and then asking a clarifying question, now and then laughing, as they debated.

In summarizing conclusions from the workshops, they noted on flip-over charts that they found that emails and meetings were time-consuming and led to a rigid way of handling their responsibilities. Moreover, they would like to get rid of rigid systems and demands for documentation and control. They asked for a more trustful and symmetrical approach to employees; both being allowed to take such an approach themselves and being met in such a way by from their own leaders and by 'the system'. The difference between the tools lined up by the executives and those identified by the middle managers was that the middle managers predominantly listed and discussed 'soft' tools. This may have fairly obvious reasons: first, the executives have the overall responsibility for the organization and are thus more distanced from the employees than the middle managers; next, as the latter are the ones who are in close daily contact with the employees, they are the ones who spend most time on specific managerial. That

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[58] Five group members each wrote down three tools, which makes a total of fifteen tools for each group.

said, the same frustration with a rigid 'system' emerged in both groups. For example, 'we could drop (or cut off) all the rigid and the fixed elements – for instance documents, status reports, emails, excel files.' The time strip and the time registration procedure were also themes brought up by the middle managers. Furthermore, experience was brought up as a tool they might consider to drop based on the argument that the old experiences held by a 50-year old organization member are not always relevant for today's business.

The tool-dropping experiments were well received in the organization. Afterwards, those who had been involved in the events talked about it in positive tones, and those who had not participated said afterwards that they had heard positive stories about them. When reflecting on the events and looking back, I think that my turn towards the focus on the tool-dropping experiments is expressed in what Czarniawska says:

'I am suggesting that when reflecting only in a present-to-hand mode, we are reflecting on topics already given, and might be neglecting issues that are specific to our peculiar mode of ready-to-hand engagement with the field of management. Thus, Weick's postulate of making use of the 'unready-to-hand' mode, that is, when still engaged but momentarily at loss – not knowing what to do, and too disconcerted to lean back and reflect properly – trying to capture what it was that disconcerted us. Tricky, uncomfortable, and sometimes painful, but promising. The present 'armchair reflecting tends to leave big blind spots that might be discovered by such a reflection 'on your feet' (Czarniawska, 2005, p. 275).

This '[t]ricky, uncomfortable, and sometimes painful, but promising response' to the tool-dropping experiments in the field made me redefine the focus on design-thinking experiments because I increasingly developed a gut feeling that the tool-dropping perspective was worth pursuing.

6.7. The empirical material organized

Remaining in a field for 18 months naturally generates a great deal of empirical material, of which only a small part is ultimately used in the research project. In order to offer an overview of the empirical material generated during my fieldwork, I have organized the material into three different categories below. First, I offer a general overview of the material; next, I provide an overview of interviewees. (For the sake of anonymity, the names are aliases). Finally, I provide a

timeline of the events in the field that I have found is important to include, while the next chapter will organize the material in such a way that it can contribute to answering the research question.

1. Overview of empirical material

- 18 months of observation
- 24 interviews
- 2 field experiments
- Presentations and dissemination of literature on sensemaking (tool-dropping), innovation, disruption and hypercompetition
- Business newspapers and consultancies' reports
- FintechOrg's annual report 2013

2. Overview of interviewees in the empirical chapters

Names:	Positions:
Hans	Chief Executive Officer
Anne	Chief Operation Officer
Jan	Chief Sales Officer
Petter	Head of business development
Simon	Programmer
Tobias	Consultant
Björn	Innovation manager
Sven	Project manager
Jens	Business manager
Morten	Business architect
Per Michael	Project manager
Per	Head of customer relations
Bettina	Programme manager
Sören	Business consultant
Tina	Project manager
Johan	Business consultant

3. Timeline of events in the field

Employees at FintechOrg experienced and completed many different events, workshops, tasks, meetings, changes in practice and job descriptions, welcoming many new colleagues during my

field work period from January 2015 to late June 2016. I have selected and listed what I see as the most important events for this project in a timeline below.

Winter 2015

(including the two meetings in December 2014)

The executive team and some of the middle managers met in December, in part conducting a strategic workshop on innovation. At this meeting a new position as innovation manager was introduced, and I was introduced as a research scholar.

5 January. I began my field work, arriving at FintechOrg on a Monday together with 12 other new employees.

17 January. The participants received an email from the director of communications wrapping up on the seminar and mentioning that the new innovation manager would coordinate the efforts.

The annual report 2014. Among other topics, the new report published in January discussed new initiatives targeting the clients on innovation and banking excellence.

27 January. The messages from the meeting in December about innovation and banking excellence were repeated. At the meetings the CEO presented slides showing an analysis of the industry and, among other points, presented the innovation agenda.

10 February. In a monthly meeting for middle managers, a new organizational structure was announced, including a new (innovation) centre of excellence (Figure 3).

The interview section of the fieldwork. During April and May I conducted seven interviews, including with the CEO, the innovation manager and one of the executives. The interview with the innovation manager focused specifically on the new established Business Angel (BA) group. As we shared an office for six months, we had many daily conversations about innovation. Some

of them were stored as field notes. The remaining interviews were conducted during summer and autumn.

In mid February the innovation manager initiated various activities, including a crowd funding initiative, establishing a Business Angel (BA) group consisting of the CEO and two executive directors, who were to be able to meet spontaneously in order to evaluate specific innovation ideas, and carrying out a whole-day event with a member bank about innovation.

Spring 2015

8 April. A new initiative about digitization at the (member) banks was launched. An external consultant was leading a group of employees who analysed the potential benefits of digitization.

Migrations. Three migrations of new member banks' data to the systems of FintechOrg were to be completed. Two had already been successfully accomplished when I entered the field, and an upcoming migration was planned to take place on 'M-day', 9 May 2016. During spring 2015 I attended meetings at FintechOrg regarding two future migrations. As time went by, migration activities increased and occupied more and more of the employees' time.

2 June. Shadowing Anna from 9.00 to 17.00.

19 June. A workshop focusing on crowd-funding involving six banks and an external crowd-funding firm took place at FintechOrg, organized by the innovation manager.

11 August. Shadowing Jan from 10.00 to 17.00.

19 August. A change programme called FintechOrg 3.0 was launched supported by the consultancy group McKinsey.

20 October. I gave a presentation of my work to the executive team.

11 November. The exit of an executive team member was announced on FintechOrg's intranet.

Winter 2016

13 January. A paradigm shift was announced at the monthly meeting for the middle managers. It was named 'The FintechOrg, we want...' The following day, the group of middle managers received an email with a summary of the meeting and a Q&A about plans and intentions regarding the announced changes.

28 January. A new organizational structure for FintechOrg was announced.

4 February. The tool-dropping experiment took place at CBS Studio.

Spring 2016

5 April. The tool-dropping experiment was the theme of the monthly meeting for middle managers, in which all participants were engaged.

9 May. The migration of Bank B (M-day) was successfully accomplished.

21 June. The monthly meeting for the middle managers took place – this time about the agile FintechOrg: 'The FintechOrg, we want …'

Concluding remarks

In summary, I introduced the chapter by outlining my interest in the field of the managerial aspects of design and furthermore how I had organized the project in a collaboration between Copenhagen Business School and a Nordic fintech cooperative. I experienced the project as a study 'in between' during writing seminars and academic conferences due to the fact that I studied a field positioned in an interstice between different ontologies. The research was conducted by means of fieldwork and ethnographically inspired methods and through experiments, which resulted in a focus on tool-dropping rather than design thinking experiments.

In the chapter I clarified my subscription to an ontology of becoming, meaning that I view the conditions for human beings as becoming – situated in a world of continual flux and fluidity. That said, I also remarked that I am not an ontological purist, which is mirrored, for instance, in my writing style, as I am not writing my dissertation performatively. Instead, I am writing a story that can only present a frozen picture of the field because I find that to be the most meaningful approach for the reader in practice. My ontology of becoming has also affected my choice of activities in the field and of those I highlight as being most important, namely the tool-dropping experiments, which, although they were unexpected and unplanned for, now dominate the project. This means that part of the chapter centres on Weick's perspectives on tool-dropping, which refers to his encouragement for us to drop established ideas about our world in order to be better able to receive and react constructively to the continuously new conditions of our lives.

In the outlined empirical material, it appears that the material generated in the field, besides the tool-dropping experiments, consists of observations, interviews and readings of newspapers and FintechOrg's annual report from 2013. With regard to the interviews, I stated that they were conducted in a semi-structured format, because I wanted to know how the interviewees regarded the concept of innovation both in general and at FintechOrg in particular; furthermore, I also wanted to know how they would understand the concept of a bank.

Chapter 7: Innovation practices at FintechOrg

The aim of the following chapter, which constitutes empirical material generated during my fieldwork, is to provide an overview of the change and innovation processes at FintechOrg that I observed and took part in during my one-and-a-half year of fieldwork. Thus, in the chapter I first set the scene by inviting the reader into a meeting between the executive team and the middle managers. The meeting reveals the atmosphere at that time at FintechOrg, and a later paragraph outlines the conditions for managing FintechOrg. This first section thus introduces the reader to the organization and its managers. Next, I move on to the innovation agenda, which was initiated when I entered the field. Consequently, a section of the chapter is dedicated to this initiative, to describing certain specific activities and to discussing the understanding of innovation as a phenomenon in the field. Here, the aim is to create the basis for the following analysis of the innovation processes in the field. The third section revolves around yet another change initiative, which was initiated eight months after the launch of the innovation agenda – in fact a reactivation of one of FintechOrg's former initiatives, an empowerment initiative termed Chilli.

The purpose of offering insights into this move initiated by the executive team is to show how they sought to support the innovation initiative. This is then followed by a third change initiative, which is also announced at a meeting between the executives and the middle managers. At the meeting it is stressed that McKinsey consultants will be teaching employees to carry out their work in a new way. This particular story from the field is included to illustrate the executives' aim to reorganize for innovation. Following this, I present the tool-dropping experiments, which I described in the methods chapter. Here I describe how the experiments turned out and the following discussion of FintechOrg's tools. This section is important too, because the tool-dropping experiments give us new theoretical insights, which will be further described later. In closing, I offer insights into two specific themes that stood out from the empirical material, and which I will subject to in-depth analysis in Chapter 8. The themes are 1) organizing processes of time and 2) the perception of a bank and of banking. In concluding the chapter, I summarize the disseminated content of the fieldwork.

7.1. Setting the scene

The situation for FintechOrg in January 2015 was positive, judging from the intake of new member banks, which meant that their data were to be migrated to FintechOrg's platform. Of course, this led to more work for the organization, and hence the many new colleagues who were announced at these meetings. On the other hand, however, there was a flipside of that coin, as it put pressure on the organization in many ways. At a meeting January 2015, Hans articulated the challenges:

'FintechOrg's management skills are under pressure. The board wants something that puts them in the lead, and with certainty of success. FintechOrg must be able to deliver results regarding all processes across the banks, be more proficient businesswise, be better at putting ourselves in the client's place. FintechOrg has to operate and innovate on many different levels. Are we ready for that',' he asked, rhetorically.

Moreover, Hans stressed the importance of dialogue: 'We have to be able to engage in dialogue before there is a language,' he said. I am not quite sure if I know what he meant by engaging in dialogue. My interpretation is that FintechOrg's managers should be capable of entering into dialogue with the new clients. Another comment during his talk was that FintechOrg's culture should be secured, while at the same time FintechOrg should carry out the needed organizational changes: 'we' should work smarter, not harder. Yet, this led to a small intermezzo: 'Hans! I don't buy this at all!' a manager, Johnny, burst out. He argued that the organization was overheated, that the workload was much too high, and that the management team should stop taking on new projects.

Next, another manager put up her hand, which caught Hans's eye. He nodded and said her name, 'Gitte,' encouraging her to go ahead: 'I agree with Johnny, FintechOrg's culture is being put under pressure, everything is new to the old [colleagues] at FintechOrg.' Some of the people around her nodded, and 'hear, hear!' was repeated here and there in the audience. The CEO and an executive team member, Anne, listened to the critic. I had the feeling that they actually picked up on the criticism. They repeated what was said, and both of them in turn took a few steps out into the middle of the group. It seemed to me that they were actually able to handle the criticism, and that they took it in. Hans said:

'Okay, we won't say yes to anything [new projects, tasks or alike] without knowing if we have the staff to do the job. Thank you, Johnny; won't commit you [the others in the room] if you don't know where you'll find the people.'

Anne took the floor and explained that to her, this was also a matter of leadership. That people should be allowed to say 'no' to tasks if they felt their workload was too heavy. She explained it by relating her own conversations with her supervisor (Hans), who had asked her, 'Don't you need to spend more time on reflection? Judging from your calendar, it looks like you have too much on your plate.' By sharing her own experiences with time and workload, she let the participants know that it was okay to take care of themselves by managing their own time and accepting it if people turned projects down. Moreover, as Hans did by asking about her workload, other managers should pay attention to their employees' use of time. After the meeting, I talked to Hans about the dissatisfied managers and his own and Anne's reaction to it. His response was that 'you need to be able to take it in,' referring to the managers criticisms of his and his team's behaviour by taking new customers in without checking whether there were enough staff to deal with the new tasks. By taking in the criticism and showing sympathy, Hans and Anne recreated the calm atmosphere that normally characterized these meetings.

7.1.2. Conditions for managing FintechOrg

In April I interviewed Hans about his work as the chief executive for FintechOrg. One of his concerns regarding change and innovation was to be aware of 'movements':

'You need to know who has put things in motion and know how to get inspiration.' At the same time, he expressed a keen focus on client relations by saying that FintechOrg and its clients needed 'a common perception of the world. And that takes a lot of time,' he added.

'Internally, you have seen how we discuss things in our strategy workshops and those sorts of meetings; you have seen how we work with the understanding of future bank customers – what do we think they want, who do we think is going to be in the market? ... Let's just take Porter, a nice, excellent framework. What happens on the supply side? And how does it look in the marketplace? Do they [the banks] understand that? It's not the way it was three years ago, or a few years ago. It is completely different. This is something I really spend a lot of time on. First of all, orchestrating things so that we become one single movement. I mean, internally.'

Hans uses the metaphor 'movement' to explain that it is important that his organization and its customers have the same picture of the world, that the different entities move along together, and, moreover, that it is important to bring all the clients along on the same 'journey'.

'For some of them, we are the primary source of information and inspiration to driving innovation. Moreover, it's not enough just to transfer information. Instead they need to start with the understanding – understanding of what is going on, what is happening in the environment around us. (…) [understanding] that none of us can succeed without reaching out to each other. That's something I put a lot of effort into,'

he said and offered some examples of the different scenarios:

'Sometimes, on their boards and in board seminars. Sometimes, together with management teams and, of course, these executive committees [the five committees deciding which new projects to engage in on behalf of the collective]. The idea behind them is that we can discuss a common agenda.'

An important reason for Hans's effort to talk to all these people was that if they were to make decisions together, they would benefit from having the same picture of 'what the world looks like,' as he put it, regardless what kind of actions each member bank's management would later choose. For instance, even if they pursue different strategies, they still need to agree on where they are going to compete, and where they would like to differentiate themselves. Hence one of Hans's points was that FintechOrg's team of directors and managers should be individually available to the banks' representatives to engage in dialogue and demonstrate that FintechOrg actually was able to meet them and 'give them individual competitive power.'

In another context, I asked Hans if he saw FintechOrg as a sort of change agent for the clients. He confirmed that he did and told me that one of FintechOrg's challenges had to do with the variation in the individual clients' level of ambition and degree of business development. FintechOrg's clients are not a homogeneous group. Some are large banks, which are far ahead regarding their end-customers' future demands or their ability to respond to social trends. If FintechOrg was unable to contribute to the debate about new ways of banking, 'we would be considered antiquarian,' he said and continued the topic by turning it upside down:

'With some of the other clients, it may not be helpful for us to view them as antiquarian; instead we need to support the development that we know they are going through, but which they may not have noticed yet.'

The close relationship with the clients was a challenge in relation to innovation initiatives, which can initially be difficult to monetize. As a natural thing, he said, the banks want to see where the money is going to come from before they are going to initiate an innovation process. 'It's no wonder, they are brought up on it,' he said. Yet, if you wait too long, the risk is that others have cornered the market, he stressed and referred to the Mcoin/ Slide competition. In this case, the collective of banks that made up FintechOrg had waited too long to make decisions about the mobile payment solution, and hence were close to losing the competition. (Today, however Slide has lost out to Mcoin.)

Gaining insights

Hans also talks about the manager's need to be able to gain insight and invite to dialogue.

'It's not about winning the argument, he said. It is about gaining insight into a number of factors, including the uncertainty about the influence of different factors, and then, on a shared background, make a decision. Then, one can make wrong or right decisions, but having a shared basis [is important].'

By talking about 'not ... winning the argument,' he stressed the importance of approaching the clients with a certain degree of humility regarding our insight into their everyday life:

'For our part, we have to say that we don't know the financial institution's everyday life. We are not the ones Mrs Hansen sits down to talk to. We are not the ones that the business client visits to discuss the development of the credit line and what's going on in that particular business and so on. We have a fraction of the knowledge that is needed. The financial institutions have a different fraction. And it's all about putting these pieces together and discuss what to do.'

Moreover, he stressed that it was essential for FintechOrg to be good at putting the pieces together and avoid going off on an IT tangent driven by 'our inherent enthusiasm.' Of course, the enthusiasm should be there, he acknowledged, but it has to be connected to what it is intended to support.

Managing stakeholders and employees

The fact that a significant part of Hans's job was to be in continuous contact and dialogue with FintechOrg's clients and board members, among others, to secure that they shared a common worldview, was emphasized by two employees. One of the organization's head of customer relations, Per, (FintechOrg has several heads of customer relations) put it like this:

'It is important that Hans is always visiting them to inform them [the clients] about different initiatives. In addition, that's also what sets Hans apart from many others … He's absolutely fabulous at that. His stakeholder management is world-class. And that makes it possible to push a lot of things through that otherwise would be very, very hard to do.'

Additionally, another voice, Tobias, a consultant, offered a comment on the CEO's impact on the employees. He told me that what (among others) happened during the Chilli programme[59] was that Hans dropped by the different departments and offices in the organization and 'talked to everyone'. He said, 'You might overlook that! Because he is super … ehh … there is so much energy in him, and that's catching. He is very human, and … I consider him [to be] very authentic.'

7.2. The innovation agenda

FintechOrg's executives' focus on innovation was not quite new. According to Tobias FintechOrg the innovation agenda was necessary. Regarding the organization as being non-innovative he pointed to two reasons especially for why and told me about a report on FintechOrg and innovation conducted by IBM the previous year. According to the report, Tobias said, there were challenges with the owner structure and what he called 'not getting a free hand.'

'IBM was hired last year to investigate FintechOrg's innovation maturity. Hired in order to conduct an assessment of the matureness. It was found not particularly mature, perhaps as a result of not getting a free hand, because of the owner structure that we have. (…) We are limited due to the owner structure. It is more difficult to make strategic initiatives. The customers need to be ready for it.'

Moreover, Tobias found more reasons why the organization, in his opinion, was not as innovative as he would have liked:

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[59] In short, the Chilli programme was prompted to empower employees in the wake of the financial crisis, where FintechOrg laid off employees. I'll return to it later.

'FintechOrg has been a like a cosy club for a lot of people who liked each other. When I say a cosy club, it's about knowing the same people for many years; for many, many years. It is of course a good thing [knowing each other for many years] because it paves the way for creating something together. But what is FintechOrg then? It is the people who work together. Then we are here because we like each other. That's a good thing, of course. However, it is not the way to bring new people on board and get inspired. Also, there is this sense of: "we never used to do things this way, that's not how we do this."'

7.2.1. Organizing for innovation at FintechOrg

At the meeting in January 2015, shortly after I embarked on the fieldwork, innovation was on the agenda. Christopher, a member of the executive team, announced the new Center of Excellence: 'We have chosen to organize ourselves with the mindset of a Center of Excellence. FintechOrg builds a central unit to facilitate and anchor the innovation process at FintechOrg.' Christopher's PowerPoint slide specified that Björn S., innovation manager, and I (Dorthe Mejlhede), researcher, would make up the centre. Next, the floor was Björn's. He talked about innovation, defining it, in part, as 'fixing something'. He had picked up a light red sign from a shelf in a corridor in the main building with the text 'Out of office, back again … (please note the date).' The purpose of the sign was to let the cleaners know how long time the office would be empty and thus would not need cleaning. What the sign fixed was the need to communicate to the cleaning staff.

Figure 2. Organization diagram showing the placement of the new Center of Excellence
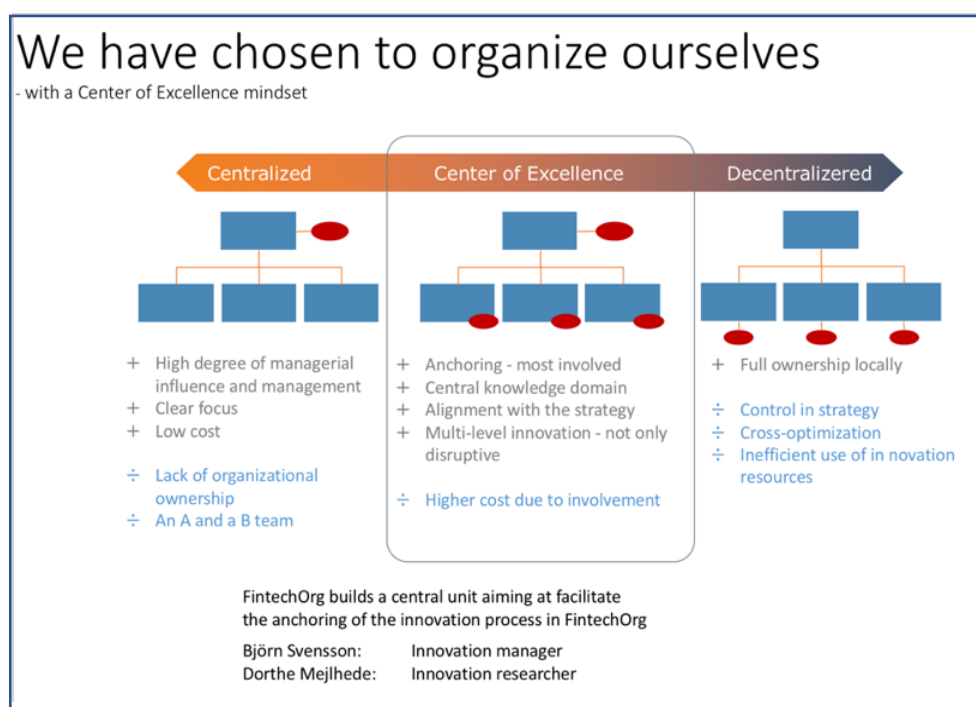
Björn also announced that the centre should be occupied with business innovation at FintechOrg's client companies. 'Yesterday,' he said, '"fast follower" was fine, but now, number two loses.' As an example, he used the ongoing competition between the smartphone apps Mcoin and Slide, alluding to the fact that Mcoin had almost completely out-distanced Slide. At the time, the competition was still not settled. Now, however, FintechOrg had initiated business innovation by establishing the Center of Excellence, which would operate across the organization, similar to the HR department, for example.

Normally, these meetings were organized around one or more presentations followed by workshops, where the managers contributed with ideas and knowledge.[60] As a follow-up on the meeting in December, the team of directors sent out an email to the participants summing up the takeaway from the meeting. The text was wrapped up in bullet points divided into 'inputs' from the workshops and subsequent 'reflection on actions' (what should be done right now?) from the team of directors.

'Takeaway from the meeting:
Inputs [from the meeting participant]:
• Scope: business innovation in FintechOrg's client companies, involving both radical and continuous innovation (incremental improvements), including adoption of technology-driven innovation. The innovation initiative revolves around the future financial institute, but it simultaneously strengthens FintechOrg's innovation capability in terms of knowledge and methods regarding innovation. The efforts take place in the clients' own organizations in collaboration with the clients. FintechOrg's contribution is paid for by the clients.
• Branding effect for FintechOrg: we will show ourselves to be an innovative player.
• We need to create a common language for innovation.
• There needs to be a clear responsibility for orchestrating the effort. The responsibility must ensure that the right roles and competencies are in play in relation to the clients.
• We must make sure not to create an A team and a B team.

What should be done right now?
Results of the team of directors' subsequent reflection:
• Clarification of purpose and effect and preparation of an activity plan for the strategic effort

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[60] At FintechOrg two similar meetings took place within two months. The first was in December 2014, where I was invited to participate in a strategy meeting, although I did not officially begin my fieldwork until January. Here, however, I combine the two meetings onto one, since the content was quite similar on both occasions, including the message about innovation from the executive team.

• Inspiration; the possibility of bringing in an external partner for feedback and cooperation must be explored
• Developing the operating model for innovation. How does business innovation function when it works?
• The team of directors must clarify how the innovation effort should be orchestrated – what roles and tasks are in play, and who ensures that the different strands are coordinated.
• The efforts are coordinated by Björn S.'

The text reflects the executive team's rather ambitious focus on innovation. The economic awareness among the participants is clear – the effort should be paid for by the clients – however, the focus is also on the branding effect and on concerns for employees, specifically the importance of developing a common language and avoiding breaking the staff up into an A team and a B team. The executives focus on overarching structural issues, such as plans, strategy, coordination and preparing the managers for collaboration with possible external partners.

Doubting the new way of organizing for innovation

The audience was organized into smaller groups to discuss and write ideas on flip charts. After a given time, each flip chart was presented by the group. During the plenary discussion, one of the managers referred to Björn's story about the red sign, saying, 'innovation is not that simple.' At my table, there was some scepticism regarding the innovation initiative in general. Some of the reactions were:

'if ideas are collected from employees, they will expect something to come out of it. Björn should not be the one to judge the ideas. How should the traffic between inventive employees and Björn be handled? And what are they promised to get out of it? Who should decide about the ideas?'

Next, one of the participants wanted to know how he should understand the term 'business innovation'. Björn answered that it could include both big and small issues, and Hans added:
'We want to cultivate new disciplines, we will begin to communicate that. We are in the course of a change process that Björn will steer and roll out.' 'And errors would be allowed?' asked one of the participants, to which Hans answered: 'Yes, for sure!'

The BA group

As innovation manager, Björn initiated activities that were new to the organization. One example was the BA group, which the executive team apparently had confirmed. In spring 2015 during an

interview he told me about it: 'And then, as you see, we have established this group, we call it the BA group, the Business Angel group'. Björn explained that the idea was that the BA group would arrange brief meetings with top management team, just half an hour, to approve or reject innovation ideas.

'I have chosen this format – a special group invited to meetings, sometimes early in the morning, during lunch or late in the afternoon – because they should not feel that this is something on their [day-to-day] agenda. The mindset here is that at this stage, it is about screening ideas. I mean, they should be allowed to strangle them in the cradle. I have taken it [the idea] through so far, and then they do the next screening, where I do a small presentation, it shouldn't take long. It's an elevator pitch (…) and here I have to be able to deliver the idea so that they can say, "that sounds okay."'

The crowdfunding initiative

Four days earlier, Björn had sent an invitation to one of these brief meetings to four members of the top management team, Hans, Anne, Christopher and Jan, by email. In the invitation he explained that the customer relations manager, Sophie, had provided an initial contact between himself and a co-founder and CIO from a firm focusing on crowdfunding, as mentioned in the interview with Anne. He and his firm might be interested in a collaboration with FintechOrg, apparently based on the idea that 'a use of FintechOrg's platform would free the crowdfunding firm from investing too much energy in a system platform and [enable it to focus] more on the business idea – crowdfunding.' Two PowerPoint files were attached to the email. As it was clear to Björn that Jan could not attend the meeting, he suggested that he might take part over the phone. The three other executives were present.

After the meeting in the BA group, the idea was approved to be taken to the next level. Now, representatives from some of FintechOrg's possibly interested member banks were invited to a meeting where the director of the crowdfunding firm would give a presentation about the firm and a possible collaboration with FintechOrg and its members. The idea was that the member banks could offer their customers more beneficial loans in a close collaboration between the crowdfunding firm and the individual banks. Ultimately, the crowdfunding project could not go all the way in the FintechOrg context. It died a silent death after a few months despite the back-up from a fair number of banks. Thus, although it was a concrete invention, that some of the

members were interested in, it was nevertheless decided to stop the process of turning it into a viable innovation. Hans has some additional words about it under point 23 below, in which he states that the member banks' decision makers thought it was a good idea, but that ultimately they preferred a 'wait and see' approach.

No need to spend more time

Later on, that year, more precisely on 21 December, I interviewed the business manager Jens, who had recently joined the organization. We talked about innovation. After a while, he mentioned the crowdfunding project as a failed innovation initiative. There had been one meeting with the firm, he said. Some of the banks attended, and then a one-pager was presented to the FU Industry (one of FintechOrg's five business committees targetting the industry). Here it was decided to allocate 50 hours to a further analysis, which Jens considered to be 'not much'. Moreover, he told me that several banks had seen no need to spend any time on it at all. He admitted that as a new employee, taking up the position in August 2015, he did not know much about the effort that had been put into the idea; however, at FintechOrg, he said, we could explore the full potential of such a case much more if we had the necessary budget. As a comment on his point about the necessity of building an innovative organization, he stressed that the banks needed to increase their earnings:

'[i]t's a burning platform! Banks make money on transactions. If we don't do anything, if we don't explore possibilities … we risk being left behind.' (Jens, business manager, 21 December).

The money dominates the mindset

Another interviewee, a business architect, Morten told me on 2 July 2015 that to his knowledge, the top management team would not allocate 200,000 kr. to exploring the case further, and hence they passed the idea of collaborating with the crowdfunding platform firm on to the business committee. He elaborated:

'The money dominates the mindset. The focus is to use money optimally, and we are not used to thinking outside the box. On the contrary, we are used to working inside certain boundaries. It's a cost paradigm. We should not waste too many hours. (…) It is super difficult to get a time bar so that people can work on something without having a paying client.'

According to Morten it was not possible to form a project to explore the technological possibilities if, for instance, someone contacted the organization claiming that they had an application they would like to collaborate on, or if somebody wanted to buy services – for example a leasing company that had developed an application and would like to order 'a digital signature room':

'We cannot work on it until Sophie has a signature. That's where it gets daft – because if you really haven't worked on it, or maybe haven't uncovered how many booby traps there might be, then it's hard to set a price.'

Really interesting, but they'd rather wait and see
From another point of view, Hans told me in an interview on 8 September 2015 that the financial member institutions were not that interested in the crowdfunding project for the time being. They preferred to put it on hold a bit. He further clarified this point:

'There isn't a lot of support right now. I actually think that Gartner's drawing, you know, is very meaningful – where on the curve are we? You never know. Anyway, the financial institutions are not feeling the hype at the moment. They think it's really interesting, but nevertheless ... they'd like to wait and see.'

7.2.2. Defining innovation at FintechOrg

One of the concepts contained in the research question is innovation – the desired goal of FintechOrg's endeavours. Thus, my initial question to interviewees was how they understood and related to the phenomenon we pursued. People I spoke with during the fieldwork offered many different views on innovation. Their stories were told in response to my two main opening questions. First, what is innovation? And second, what is innovation at FintechOrg? Some were unsure about how to understand innovation in their daily work and expected me to explain it; others emphasized disruptive innovation as a more interesting and valuable alternative to the small incremental improvements of every-day practice and services. In their perspective, the latter was conducted continuously at FintechOrg.

Innovation or leadership development?

The different interpretations of innovation were articulated in a variety of settings, interviews and meetings. In the following, I take my point of departure in one of the weekly meetings in the

executive management team, which I observed during Spring 2015. Here a member of the team, Anne, asked me after my presentation of the research project: 'Is this innovation? Or are you talking about leadership development? Because, then you are surrounded by the wrong people.' She meant that my current location in the Development Department was not the right office for me. Instead, according to her, I should be attached to the HR Development Department.

From outside in

Earlier that Spring (19 May 2015), I interviewed Anne about innovation in general as well as innovation conducted within FintechOrg. 'We're always trying to think from outside in – why?' she said, ending her observation with a rhetorical question. This phrase, 'from outside in' came up again and again, articulated by managers at different levels. The expression is meant to describe the organization's effort to address its customers' challenges and hence approach them with greater empathy and understanding of their needs rather than selling them off-the-shelf solutions. Anne went on explain her understanding of innovation, as framed by business needs:

'What are the documented business needs? This is perceived by some as extremely conservative. It may be so; however, it is one of the virtues that so far have led to our success. We have built something that the business [the clients' business] has been missing. We have not established a think tank. So, innovation, what is that?'

she (again) asked rhetorically and brought up two examples showing her interpretation of innovation – the crowdfunding project and the idea of the small pink notes on the desks to the cleaning lady explained below.

Anne's examples of innovation

The second example was the crowdfunding project, which began as a contact between one of FintechOrg's managers of customer relations and an external collaborator wanting to share a crowdfunding platform with FintechOrg and its banks as a new service for the bank customers. The collaborator had developed an organization and a business around his platform.

A third example she mentioned was the way a new bank (Bank B) recently became a so-called full member of the FintechOrg cooperative. A full-member bank has access to all the features

provided by the joint IT platform, unlike the banks that was ordinary clients. Moreover, the full members get a price reduction and influence on the organization and its services. In this case it was not an easy task, because the bank was already a member of another member-based IT cooperative. Banks that are members of such joint IT platforms normally have a significant investment tied into the partnership. In addition, they have to disburse a significant amount when entering the community, and if they want to leave at a later date, they have to negotiate how to withdraw the money that is tied up in the system. Hence, shifts from one IT cooperative to another are rare. In this case, however, FintechOrg was managed to set up a financial model that enabled the bank to enter and thus the platform.

'We managed to get Bank B on board in such a way that it became economically manageable for them to make the transition [from one IT cooperative to the other].'[61] She explained that the management team and the board of directors had organized a way to meet the new member bank and invite the bank into the cooperative by focusing on making it happen instead of insisting on following the playbook.

She seemed to find it a wise decision the bank director and his fellow decision-makers made when they chose to leave the former IT provider and join FintechOrg's platform. To her, the way of welcoming the new bank by thinking from the outside in, exploring what would be an attractive solution for the prospective new member, was an example of focusing on the business – a mindset that had consistently and repeatedly contributed to developing the organization over the years. Moreover, according to Anne, FintechOrg's organizational culture had continuously managed to develop and enhance the collective IT platform over the years. She expressed it as follows:

'wanting to do the best for the clients. (…) So, for instance, if somebody in the organization discovered that a specific feature could be improved, be more efficient, more appropriate or whatever, we would take it up right away and act on it. But then of course, we can always discuss whether this is innovation; however, to use your head to solve a problem, a challenge or do something better – to me, that's innovation!'

Also, innovation could be brilliant ideas seized by the right person with the right attitude at the right time, like, for instance, the idea behind the platform's present architecture:

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[61] The quote is lightly edited to preserve anonymity. Being too specific about the model for the bank's entry to FintechOrg's platform would make the case and its new member recognizable.

'The system has certain underlying principles. We have this really brilliant thing, "bank standard," where the bank sets its own rules, which then affect the rest of the systems. A new bank, Bank B, for example, begins [when entering the platform] by setting up its specific bank standard.'

The platform

Anne explained the standard to me by describing it as a kind of engine that determines how the new bank's products should work in the future, how customers should pay fees, what a reminder notice should look like, when interest rates would be added and so forth.

'We just have … that's what makes us run one solution that applies to all of them [the banks]. Because, naturally, there are different fees and rules, different procedures about interest rates, different billing procedures, and all that. So there needs to be some degree of flexibility when we build such a platform. What does a user interface look like in a self-service solution? Do we sell these products or only those ones? (…) This is really a way of modelling how the bank is going to work,' she said and commented, 'It is really brilliant when you want a system that can adapt to many different customers.'

Later during the interview, she stated that as she saw it, FintechOrg had a really neat architecture, which had been designed so nicely 30 years ago and which made the structure cost-efficient: 'With us, things work across the solutions,' she concluded. I learned from Anne and other interviewees in the organization as well as banking staff whom I happened to meet in private gatherings during the period of my fieldwork that the capability to work across bank systems in general was a struggle for (bank) employees. For instance, they had to type a customer's name and address into many different places in the system, which required them to open and close different parts of the system, during a specific process with one single customer. Anne also stressed that issue in the interview. According to her, there was no doubt that FintechOrg's platform was a kind of organizational legacy system that had been well designed many years ago. The coop had then stuck to this basic architecture, striving to make it even smarter, added new functionalities and so forth. As she saw it, FintechOrg and its technology supported the financial institutions as efficiently as possible.

From the perspective of a graduate

However, the view of the platform's technological functionality differed, depending whom I spoke to. FintechOrg had established a graduate programme aiming at hiring graduates with IT profiles

from the universities in order to train young staff to develop new solutions for FintechOrg's systems. For young graduates, working with FintechOrg's old mainframe system took some time getting used to. One of the young graduates, who had recently joined the organization at the time the interview took place, had the following story regarding the system and its functionality:

Simon: 'I have been here since September, and I'm part of the famous graduate team that began in September. So, I've been here for a little over six months. And in the "graduate team", we are all employed as mainframe developers. We sit and play with something as new-fashioned as Cobol [laughs]. Cobol, which is the good old mainframe language that is ... how should I put it? ... roughly around 50 years old.'

'And it's kind of funny to be here and ... in the beginning you have the idea that you are dealing with something brand-new, but really, you're working with some of the oldest tools available. You use it because it's stable, it's reliable and ... I don't know if this is a widespread excuse, but if you'd want to transform, upgrade the whole system, it would take a billion years and then ... okay ... there really is no reason for doing that, I think ... And ultimately, it seems impeccable. Of course, there are some challenges ... It's one of those things ... But it's a lot of fun when you've been working on some of the latest systems.'

Me: 'So, you have the opportunity to stay on? You have a permanent position?'

Simon: 'Well, that was the whole idea of establishing a graduate programme; many of the people who work with the Cobol language they are ... to put it really nicely ... of the older generation, and yet, you know with humans it's like ... we have an expiration date, so somebody has to continue the business. Hence FintechOrg decided to draw in some young people who can hopefully can bring a breath of fresh air while also learning some of the good old things ... And it seems to work.'

Pioneering, radical innovations are rare

To a large extent, radical innovation and specific ideas are considered to equal innovation, as expressed, for example, by the consultant Sven whom I interviewed about innovation. He highlighted what he called 'those really radical innovations', innovations that almost change the world and consequently shake things up. Having said that, he added that small gradual improvements could also be considered innovations. In this context, however, he found it rare that FintechOrg was in a position 'where we shake the world in its foundation ...' When I asked Sven about his experience of how the executive team at FintechOrg handled innovation, he had noticed the new position as innovation manager.

Sven: 'We actually have a, you know … isn't he "innovation manager", our good man Björn? That's his title, isn't it?

Me: 'Yes.'

Sven: 'I have seen many of his tools and stuff like that … I'm just like … that excellent idea, it's easy to talk about, it's easy to set up a process. But having that idea! You know, that's the secret. Get to the point where you can generate 1000 ideas, and then it's this one little … that one golden egg, lying in the corner. To identify it, to grow it and to get something out of it. I'm excited about that.'

Sven: 'But again, what's the expectation of innovation? We come up with lots of innovative solutions each and every single day, continuously! They are there and have always been there. But that pioneering, radical one, I don't really expect that. I think it's more of the same. And I hope that somebody finds out … What should we take … The next Mcoin, or something like that. It is, you know, based on familiar technology, but is simply packaged differently and distributed in a different way. However, those ideas are few and far between. Really far.'

When I interviewed the informants about innovation, they automatically and simultaneously expressed concerns about FintechOrg's future and hence accentuated the necessity for innovation. They often pointed at unchangeable environmental conditions, such as the organization's national strategy, the increasing burden of regulation and legislation, the David-and-Goliath relationship to the larger banks, the necessary owner involvement. Sometimes more of the variety of conditions were articulated in the same phrase, sometimes only a single one was mentioned. FintechOrg had and still has a national strategy, which means that the focus is exclusively on the national market for financial technology, including foreign banks' branches in the country. The argument for this decision is that regulation and legislation differ from country to country, and the IT platforms need to reflect these differences. However, that decision sometimes leads to frustration. A project manager, Per Michael, articulated it as follows on 8 September 2015:

'[i]magine, we're sitting here (…) developing IT just for [local][62] clients alone. What characterizes the firms that are booming at the moment? It's globalization. (…) and they only need our data. It is our data that makes us king.'

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[62] To recapitulate briefly: according to FintechOrg's national strategy, the organization can only serve national clients or international clients with departments located in FintechOrg's country of residence.

By 'data' Per Michael meant the banks' knowledge about their customers' data concerning transactions, trading patterns, purchasing power and so forth. This was increasingly becoming a topic in finance because the new financial start-ups (in everyday speech called 'fintechs') added services based on the banks' regulatory responsibilities and could thus use bank customers' data without being weighed down by heavy legislation.

7.2.3. Innovating at FintechOrg

One of Anne's middle managers in the Development Department, Petter, told me about a new service they had recently developed and implemented in the client organizations: the opportunity to block credit cards geographically. For instance, if customers travel abroad bringing their local credit card, they can now choose to deactivate the card until they need it; this gives the bank customer an (added) security, which is built into the payment infrastructure. This had previously been difficult to do or had required a call to customer service. One and a half year ago, the option was developed and made available to the end users. Now, the other banks had begun to follow suit and offer a similar solution.

When Petter told me about it in an interview on 11 May 2015, he called for more clarity about the organization's understanding of innovation and for celebrating the daily innovation that he said was definitely taking place. He found that the general interpretation of innovation mostly pertained to physical artefacts, while process innovation, for instance changes to internal production processes, seldom received much attention. Furthermore, as many others would do when questioning the concepts of the art of innovation and the innovative firm, he too pointed at Apple or Google as model companies. However, when I asked him more specifically about his understanding of innovation, he said, 'It is to create something that could not have been predicted.' When I encouraged him to give an example from his own world, he suggested the payment solution to smartphones, the app called 'Slide.'[63] which FintechOrg had been involved in developing for the member banks: 'Slide', I would say. [Laughter] That [the laughter] is because I can't make myself say 'Mcoin.'[64] Anyway, Mcoin is without doubt an example of this,' Petter

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[63] A pseudonym for the original name to preserve anonymity.
[64] A pseudonym for the original name of the competitor to preserve anonymity.

said, referring to the competing solution from one of Scandinavia's largest banks. Then he told me about Mcoin entering the market only a month ahead of Slide. However, FintechOrg had had a similar idea three–four years earlier, he said, but had struggled with a certain challenge: how to make the solution work for banks that were not FintechOrg members. If the service was to work for all the domestic banks a broader solution was required, and on top of that, there was also the investment to take into consideration, he stressed. He continued shedding light on the development process that he and his colleagues had undertaken at the time:

Petter: 'And it was a little bit like … It was a fairly big investment to create such a payment universe exclusively for FintechOrg customers. And so, if we couldn't roll it out [to the customers of other banks] it wouldn't be justified. We were already mentally stuck on this idea, however, as if we said that this was something, but we couldn't crack the code the way the large Scandinavian bank did [with Mcoin]. So, all in all, our idea did not stand the test of time!'

Me: 'But how did you get the idea, and how did you work on it before you dropped it?'

Petter: 'We worked on it on a small scale, as one would always do. Tried to figure it out and unfold the idea related to the business case, the customer experience and the benefit for FintechOrg.'

The team generated ideas on the business case by identifying benefits for the financial institutions, the end users and FintechOrg, but they were not able to crack the code, as he put it.

Petter: 'We made drawings to see if we could figure out how to get out and catch other customers. But there weren't any bright heads who could crack that code. Thus, it became a relatively large investment in something that might have a very small advantage timewise, plus the fact that the customer experience could not contribute to differentiating our financial institutes.'

Petter concluded his story of inventing a service that unfortunately did not last but which was now a huge success in the form of a competitor's solution, Mcoin, by lining up what had ultimately led to that outcome. One reason was that an investment might have been justified for FintechOrg's member organizations if it could have raised their profile in the market in comparison to their competitors. The attempt failed on all accounts, and then it died.

Dreams about new ways of innovating

In an interview with the head of a section within the development department, Petter, we among others touched upon organizing for innovation. On the one hand, Petter thought that FintechOrg was already capable of delivering innovative services, but on the other hand, he also expressed some doubt about it. He asked rhetorically,

'Where do the new ideas arise, if it isn't in a customer-driven project? I mean, we could strengthen this part of it [the development work] and then say, okay, we constantly need to work on thinking new thoughts – how do we do that? So, we're not just ... Here we are ... we could say we might establish one more production line in our production ... Right now, the packages are running on the production line. It works very well, and we put those packages on, and they are delivered.'

Petter continued talking about the production line and about ideally being able to build an additional production line to take care of the processes before the packages would 'hit the line' and to work on new ideas. Regarding the latter, FintechOrg could do better, he thought, because it takes time to be innovative, and focus on executing can be a barrier.

'If you are ... like ... hard-nosed measured on executing, or delivering, then there isn't time to be innovative. That is, it takes time to creative.'

When I asked Petter how it might be possible, then, to dedicate time to innovation and creativity, he suggested focusing on methods and tools and then 'stripping groups of time and place for weeks, then I think it might be possible to do it [be innovative].'

7.3. Change efforts via the Chilli concept

The scene takes place in the basement of FintechOrg's head quarter, where three meeting rooms are usually turned into one big room during the monthly meetings for a larger group of managers. Here, close to a wall in the room, a sort of stage is established, where the presenter's PowerPoint presentations are displayed on the wall. Today, 1 September 2015, the wall is used to display a music video with a punk band playing fairly surprising music for this context. One element in particular that grabs my attention is a young musician with a blue Mohican haircut playing to an

audience in business suits.[65] The music is turned down, and the meeting begins, as Hans welcomes everybody.

7.3.1. Relaunching Chilli

He briefly explains the background for the Chilli project that was launched some years ago and the reason why the executive team has decided to re-boost the initiative. From 2008 to 2013, FintechOrg laid off many people due to the economic crisis; specifically, the organization was reduced by around 400 people. Today, the message is more positive, as FintechOrg is now hiring again. At this meeting – as at almost every other one of these management meetings I have attended – new people are announced. Usually, the head of communication, Emil, is responsible for chairing the meeting and announcing new additions to the staff.

Today, he informs us that 50 new people have been hired since the last time meeting. Three of them are managers, who now introduce themselves at the meeting. Next, Hans takes the floor to talk about the importance of the culture, key values and the role of human behaviour. 'As leaders,' he says, 'we are the ones who set the tone, and we [the executive team] believe that people are interested in making a positive contribution.' He also tells the audience that he does not believe in hierarchies but in team work and equality (although he stresses that there are still formal roles in the organization.) 'Managers should be able to guide, to coach, but also sometimes to direct things,' he says. I have heard similar stories from other informants. The Chilli project was supposed to give the employees a sense of being allowed to take responsibility for their own projects. It was launched in order to empower people, as the wave of redundancies in the wake of the financial crisis had undermined their faith in management, and to some extent they worried about being the next person to be laid off.

7.3.2. The background of the Chilli initiative

Although the launch of the cultural initiative was some time ago, various artefacts reminding the employees of the aim of the programme was still present in some of FintechOrg's offices. For

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[65] Later, it came to my knowledge that the band was the Red Hot Chili Peppers, which due to the name had played a role in the Chilli project.

instance, a large (approximately 20-centimetre-long) red porcelain chilli figure was on display both in the HR office and in Hans's office. I learned more about Chilli from Tobias, who was a part of the team developing and organizing the Chilli project. In the following, we jump into the interview at a point where I ask a clarifying question in order to ascertain that he is in fact talking about Chilli, what that stands for, and what it means to the organization.

Me: 'Chilli, or ...?'

Tobias: 'Yes, it stands for "will, dare, do". It revolves around how we can change a culture to be more open and more like, "we'll do it!" But actually, what I think it created ... it made a ... a ... a helmet, under which it became okay to discuss things that did not work. (...) it was like: how is it possible to do these things in a better way?'

Me: 'What do you think, then? Has it helped?'

Tobias: 'Yes, absolutely, it has got lots of thoughts going in the flow that emerged. [Meaning that during that period people had reflected and debated the reason for and the meaning of Chilli and empowerment.] It was a really, really good initiative. For sure.'

7.3.3. Reluctance towards the Chilli initiative

In the meeting on 1 September 2015, Hans states that Chilli is 'synonymous with culture', and that the aim is to reboot Chilli in order to bring about a cultural change. Hans asks us to take 15 minutes to discuss the topic of Chilli and what can be done to increase the impact of the empowerment tool. The room has round 15 tables, with 4–5 persons seated around each one. When the agenda moves on to Chilli, not everyone finds it a good idea to revisit the topic: 'Oh no, not again! We don't see that anything has come of it,' says a person next to me. Some of his colleagues shake their heads and mumble their agreement. Nevertheless, they dutifully took up the discussion about increasing Chilli and empowering their employees.

Anne, whom I interviewed in May 2015 about innovation, also referred to Chilli when she talked about FintechOrg's culture. She was, however, a little reluctant with regard to the employees' ability to cope with what she called 'our empowerment and Chilli and all that'. She said that one might get the impression that some employees would have preferred their managers to make the decisions. In making this point, she paraphrased what she imagined they might have been thinking: 'If I just do what I am told, then I am always a success.'

7.4. External consultants enter FintechOrg

On 8 December 2015, I wrote a field note that in the following serves as an introduction to the type of consultancies engaging with FintechOrg.

'A lot of things are happening in the field right now. The executive team is having a two-day workshop on Thursday–Friday, and in the evening of the 16th, the McKinsey consultancy is coming, I learned. McKinsey is to be flown in from abroad in order to discuss the so-called Edge project with the team.'

The Edge project was an initial part of a large change programme in the organization. I asked Hans if I could attend. But he preferred that I was not present. He argued that he wanted as much information as possible to come out of that meeting, and he presumed that if I was present it would make them [the McKinsey people] less open, more reluctant, whereas he wanted as much from them as possible, and then he added: 'it is not the agile project as such, I am interested in. It is the culture, the engagement, the passion. Anyone can set up an agile project.' During the summer and autumn of 2015, the executive team discussed proposals from the consultancies at the weekly team meeting, and ended up engaging with a team from McKinsey, who supported the new change programme.

7.4.1. Measuring agile thinking

Anne is presenting a new initiative – 'the digitization project'. Preparations had been going on for some months via an introductory project involving a group of people from FintechOrg's staff with support from external consultants. Now the time has come to train more people to develop new services together with clients (employees from the banks) in an agile way by using the consultancy firm Mckinsey as a kind of 'on-the-job trainers'. At the meeting Anne talks about it:

'This time it's different, because we will implement it within 16 weeks. I am very confident, though, that it can be done. However, we have to get through it alive, so we need external help. We are about to sign an agreement with McKinsey, who will sit next to us and teach us how to do. It demands confidence and processes, and I believe that the team [which will work on this project 16 weeks from now] will be able to do it – and in addition, accept that they make mistakes, because they have been allowed to run the red lights.'

Moreover, Anne tells the audience that McKinsey is going to test the employees who want to be a part of the project. 'McKinsey will test if people have the bandwidth for it, and whether they

are capable of agile thinking and so forth.' At my table, one of the managers says 'then we are safe' and smiled. Apparently, he agrees with some graduates I was sitting next to in the canteen a few days after the meeting. They had heard about the new project and were making fun of the idea of McKinsey testing people for creativity skills. They found it kind of stupid. Much is on the agenda today, and Anne had been encouraged to offer a brief outline of the new project called 'The Edge Project' to be run by McKinsey. Someone wants to know about the risk involved in doing this type of project in this new way. Anne answers, 'McKinsey has tried it before, so we'll follow their lead.' Then the meeting proceeds to the next topic.

7.5. The tool-dropping experiment

FintechOrg's six executives, Hans and his team of directors, agreed to devote half a day to the tool-dropping experiment.[66] The overall purpose of the workshop, which ran from 12 noon to 17.00, was to convey knowledge about sensemaking and tool-dropping to the participants and for us to explore together what it would be like for the participants to identify and potentially drop tools.[67] First, I asked them to work individually; next, to discuss their findings with a colleague; and finally to engage in a joint discussion on the topic. The questions to explore were 1) What tools does FintechOrg have? 2) What tools do you have as leader? 3) When are your tools (personal as well as organizational) established? After a break, a new session began with the following questions: 4) What (heavy) tools could we, as leaders, drop? 5) What would that mean to us, personally and as executives? To FintechOrg as an organization, to FintechOrg's employees and to FintechOrg's members and clients? And finally, 6) Who are we without our known tools, what do we have left?

As the participants discussed and wrote down the tools on cue cards in small groups, the team was asked to put the cards on a board, divided into three categories: Keep, Drop, Reinforce. This was followed up by a discussion in the full group. The participants lined up 39 unique tools, mainly

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[66] One of the executives was ill that day, which made it a five-person group.
[67] As I accounted for in Chapter 6, I formulated the questions with inspiration from Weick's ideas of tool-dropping formulated in the Mann Gulch piece (Weick, 1993b) and the papers on tool-dropping and management education (Weick, 1996, 2007).

specific ones, such as The Investment Committee,[68] time registration and the time strip.[69] One of the central production units of the organization, the mainframe, was also listed as a tool, and so were policies, various organizational fora, the organizational hierarchy, operations, different forms of projects, organizational projects meeting behaviour, structures, calendars and the collective agreement with the trade union.

After the group had placed the tools under the headlines of Drop, Keep and Reinforce, a broad discussion arose, and in fact the participants were so engaged in the discussion that it became rather chaotic, and it was impossible to facilitate the process. No one had placed time control in the Drop category. However, the purpose of the session was not to arrive at a certain goal, as is the common procedure in business management when five or six executives sit down together; instead, this was a research experiment, intended to provide access to insights into the organizational life (all the different tools they had and their debate about them) and to shared learning. Questions such as 'could we drop this?' or 'what would it be like to drop this or that' were discussed. The opposite also occurred: one of the directors raised the question some weeks after the workshop: 'If we were to start over from scratch, what would we bring along?' The figure below shows the assemblage of cue cards produced during the tool-dropping experiment with the executive team.

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[68] The Investment Committee is a part of the organizational setup, which has the authority to decide whether FintechOrg should engage in the different projects and initiatives for members and customers. It comprises bank representatives and some of the employees.

[69] FintechOrg's time registration system indicates which projects employees are working on and the time spent on those projects. In the organization, it is impossible for employees to work without registering their time on a specific project. In order to be able to send invoices to members and clients, time registration based on so-called time strips is mandatory for all employees. I return to the time strip later.

Figure 3. The cue card board used in the tool-dropping experiment

They have placed all tools in two main categories: 'change and partly drop' and 'keep and reinforce.' Placed approximately in the middle is a green cue card with 'the mainframe' (the large computer running most of FintechOrg's computer processes) written in the middle. In smaller hand-written letters, a text with a ring around in the upper left corner says 'all', while in the lower right corner, it says '50 years.' They have all pointed out the mainframe as a tool, hence 'all', and they are now debating whether it makes sense to drop the mainframe. The words '50 years' indicates that they believe the system to be 50 years old.[70] Yet the discussion drifts slightly away from this focus and towards two other notions: 'the time bar' and 'agreement with the labour

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[70] The question about the age of the tool is inspired by Weick's points about the idea that old tools are the most difficult tools to drop.

union.' The question about 'the mainframe' popped up occasionally and briefly in discussions. There was no business case in it, I learned in a conversation with an executive team member. By this he meant that it did not make good business sense to spend money to fix a system that was not broken. On the contrary, the system works in spite of its age.

7.5.1. A fun exercise

I talked to the Hans after the tool-dropping experiment, asking if he would share some of his thoughts about the experiment with me. One of his points was that it was fun, it seemed like a game, he said. The cue card approach was not unfamiliar to FintechOrg. They were actually used to 'playing' with cue cards. Walking around in the organization, one often encountered walls and boards papered with small or large cue cards and post-it notes in different colours symbolizing processes and tasks – the latter as categorized in process, done or to be done.

7.6. Two specific themes in the field

The final section of chapter 7 revolves around two specific themes, which stood out as particularly prominent, and which I will subject to in-depth analysis in Chapter 8. The first theme concerns how work processes are organized based on the so-called time strip; the second concerns how employees, managers and executives understand the idea of a bank and of banking.

7.6.1. Controlling time

The work processes at FintechOrg were administratively organized through linear clock time, which meant that employees working on a given project should register their time (minutes and hours) in the administrative system, named 'the time strip'. Based on this, the accounting department made out bills by transforming the accumulated time into a final prize. It captured a dilemma in the organization, where the team of directors aimed at innovation, the production of new services and being an innovation agent in relation to the clients while operating with an administrative system that risked blocking new ideas or procedures and sometimes even production. In the following, I initially describe a small event in the canteen, which caused me to formulate an oxymoron: *time puts work processes on pause*. Also, this event leads to an introduction to the logic of FintechOrg's time registration system. From here I proceed by telling

different stories about the relationship between time, time control, money and work. Even though the employees' purpose was to pay careful attention to spending, it seemed that the risk was to produce the opposite – overconsumption of time, discontinuation of production and directing employees' behaviour and focus towards specific, billable hours while discarding good ideas and innovative initiatives.

The oxymoron: time puts work processes on pause

At lunch one day in September 2015, I randomly took a seat in the canteen next to the small group of graduates who were busy sharing stories from their new working life at FintechOrg. They came directly from university after taking part in the organization's graduate programme and were subsequently recruited. I knew them, because I had interviewed some of them earlier that year, in spring, and had heard about the programme. Although we sat fairly close, due to the way the chairs were placed, I did not engage with them, as they were clearly engulfed in their own conversation; instead I had my lunch, while being a fly on the wall. The group was complaining about the workload and time pressure. One of them suggested that if the work hours (in everyday speech simply termed 'hours') were spread out across the 12 months of the year, he would not be surprised if at the end of the year they would be running out of time.[71] This meant that he and his colleagues were working on a project that had a certain number of hours approved by the management, during which the work should be done within a deadline, before all the approved hours were spent. They were supposed to work on the project for the rest of the year, but as events unfolded, they would have spent too many hours without having finalized the project. Hence there was a risk that the allotted hours would be spent before the calendar showed 31 December. This led to the risk that before 'the end of the year' they might not be able to work anymore and would fail to finalize the project unless additional hours were approved.

I already knew about the system controlling hours. Even though I was doing a research project, I too had to log my hours. FintechOrg had established a digital system where employees had to log in and then search for the allotted 'time strip' for a given project number. Everybody had to log their hours on specific projects. If someone had failed to log their hours for the previous week by

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[71] Fieldnote, 8 September 2015.

10 o'clock Monday morning, they would get a reminder by email. As I only worked on one project – the research project – I only needed to log hours on one time strip. My weekly workload was estimated to be 37 hours, which is a normal week on the Danish labour market. Yet, in order to spread out those 37 hours on five-day weeks, each day was allotted 7.4 hours (a fifth of 37) to be logged on the time strip. This meant that I manually had to click on each day and fill out the time – the 7.4 hours. The person I referred to then had to approve my time sheet. Employees who worked on several projects simultaneously might then, for instance, log 3 hours on one project and 4.4 hours on another project on a given day. An employee told me that the registration made it possible to log 10-minute segments.

The projects at FintechOrg were approved by the team of directors or by the different committees with an allotment of a certain number of hours – for instance, 1,000 hours for a given project. If the project was not completed when the 1,000 hours were spent, the work had to stop, and presumably, the number of hours would have to be renegotiated with the client. In that sense, one might say that time control and time registration put the work processes on pause, since one was only able to work after being supplied with a time strip that still had available hours.

Time control and economic awareness

The present way of organizing the development of new services at FintechOrg had been introduced in 2007. The explicit reason was the relationship with the clients. In late 2015, I interviewed Bettina, who had worked at FintechOrg for many years. She told me that the commercialization of the organization had begun about ten years ago. Hence, today there was a lot of talk about economics in relation to all types of projects, compared to how it used to be ten years ago. '[Earlier] it was like "just" the cooperative, right?' However, since then, FintechOrg had become much more commercial, she said. This also meant that the employees' behaviour in relation to the development projects had to be the same as it was in relation to the individual projects.

FintechOrg developed services for its clients in one of two ways. Either management had decided on a development project to develop specific solutions for all the member banks – these were

the development projects (D-projects); or individual member companies or non-member clients ordered a given service solution and then paid an individual price based on the number of man-hours it was estimated to take to do the job – these were the individual projects (I-projects). In the latter case, the clients or members would pay for the time spent by the employees. Over the past 10 years, there had been a fairly strong focus on commercializing project management, which meant that hours spent on projects in general had been invoiced on an hourly rate. Now, the aim was that the employees should have an economic awareness of hours spent on both kinds of projects. When I asked Bettina what she thought about that, she explained:

'I think that's fine because it actually means that you don't just spend the money [hours] of the cooperative without having it in the first place and without thinking about and having gone through a "change handling", for example.'

Me: 'A change handling?'

Bettina: 'In case of a deviation. Something in the scope changes in the project. I need to get this approved before spending the money and not afterwards [after having spent the time].'

Me: 'Okay, so it [the production] is followed much more carefully, and you might say, much more controlled compared to earlier?'

Bettina: 'Yes, like, on I-projects, it's the client who's paying. So, there might have been a tradition for being more proactive compared to D-projects. At least that's one of the songs that have been sung for some time lately.'

Before the so-called commercialization gained momentum, only the I-projects were calculated based on hours spent and thus subject to time control. Today, though, both types of projects were managed based on hours (time). It seemed natural from Bettina's perspective that time equalled money, and that the commercialization of the cooperative some 10 years ago implied a contemporary organization. She also indirectly exemplified how the organization's individuals thought about time and money, leading to the oxymoron that I overheard in the graduates' discussion in the canteen about workload.

The cost paradigm

As mentioned earlier, in order to document the amounts on the invoices that were sent to the clients, the hours were calculated and converted to a certain sum of money. Another informant,

Jens, whom I interviewed in late December 2015 quoted a FintechOrg member's reaction to a new initiative, which he and some colleagues were trying to push through the system: 'From where would you get the hours?' The member's question was followed by a comment, 'It costs money to investigate that!' A third employee, Morten, expressed the role of the time management by emphasizing that the organization was embedded in a 'cost paradigm', where they were not allowed to waste too many hours:

'They are in this cost paradigm. You know, not spending too many hours. This is a very dominant mindset. That is also the case in the entire FintechOrg governance structure. The way that money is being approved. We don't have the money for making presales, for example. If you have one or more leads and you need to investigate something, prepare for something, there is a risk that nothing will come of it, but then, that's a risk you have to take. You have to spend some money, because if something happens, then you need to be ready. We don't have good mechanisms for handling this.'

He explained that FintechOrg might, for instance, be contacted by start-ups or small businesses proposing collaboration or requesting a special service. This, though, would be difficult to accommodate, because employees were not allowed to spend time on initiatives where the return on investment could not be documented. Hence, if the value cannot be documented beforehand, they were not able to work on it. Thus, there were two scenarios in which employees of FintechOrg were prevented from working: if they had run out of time in relation to the calculated number of hours for a given project, or if the value of a given development project could not be documented and/or if it did not have a client to bill.

Any conversation about time at FintechOrg rather quickly became a matter of money. For instance, the business consultant Sören clearly expressed a longing for 'being careless about time' and a relationship between inspiration and time:

'This idea about daring to pursue the inspiration! It is always said that FintechOrg's education budget goes unspent. At least in some areas we are not spending it, because we are always busy working on tasks. (…) But we need inspiration. Moreover, it takes time and money to focus on it [inspiration], being interested in it and so forth. To me, it's also a game, a kind of fun – so we don't have time, and we'd better go do something else.'

Me: 'Okay, there's some self-censorship in it too?'

Sören: 'Definitely! Play, in my children's kindergarten was defined – I was very fascinated by that – play is being careless about time. It's very much related to what we are talking about here. To dare to be careless about time. (…) And what are we doing? We are focusing on time.'

The relationship between the time it took to develop a future task for FintechOrg's employees alone or in collaboration with existing or future clients and the calculated earning was decisive. Jens, the business manager, stressed it, too, in a different context:

'Several banks thought that there was no need to spend time on it [the crowdfunding project]. Also, we are not at a point where we are able to describe what we think it would take. (…) But, you know, at FintechOrg we can work on it much more if we get the funding for it.'

However, the calculated earning was not enough, according to Morten. There also had to be a client who was ready to pay for the still unknown service. Hence, before a new initiative could be launched, time, price and a paying client has to be in place. To me, that accentuated the oxymoron even more.

Consensus about spending hours

One example of the opposite was the 'digitization project'. Here the management team and the board together with some clients created a business case, which showed that there was a huge economic potential for FintechOrg's members if their practice was digitized. The member banks had been involved in the process of estimating the potential savings, and the result was that it was decided to spend 50 million kr. on the digitization project. The project manager, Tina explained it to me:

'Until now, there have been a lot of dialogues with the so-called Business Committee Private about wanting to achieve increased digitization, and fast. Moreover, we [employees of FintechOrg] have to work differently in order to deliver faster, and the presented business case includes that [the new way of working]. Nevertheless, the business case is still in balance.'

The point was that even if it was an expensive project to make FintechOrg work differently, the calculated results showed that it was worth spending the time and money on it. Powerful people backed the project – the team of directors, the board and some important clients. In this sense, it was considered a collective project that would be beneficial for all the members; and if they had not been able to raise a reasonable business case, it would not have been approved in the

first place, she said. In other words, this process from idea to result was that first the team of directors and the board had agreed on spending a certain number of hours on raising the business case, and then the business case showed that it could lead to huge potential savings for the banks. Hence, in this case, one could say, power removed the constraints on time and money.

No alternatives to the system

During the two tool-dropping workshops I did with the team of executives and the larger group of managers in spring 2016, the time registration issue was addressed too. Here it was articulated as a tool that created frustration and which might potentially be dropped. However, the dominant perception of the time strip and time registration seemed to be that it was the only way to invoice services developed for specific clients, and then the discussion about it died out, as if there was nothing more to say on the subject.

Bypassing the system

After my fieldwork, it came to my knowledge that FintechOrg employees also learned how to benefit personally from the time registration system. If the employees were less than fully efficient while working on a project, the project might not be completed on time. When that happened, employees might be asked to work overtime, which in urgent cases meant that they were paid for up to four hours per commenced 15-minute period.

However, I also learned that in practice, available hours are found when needed. If a given project for instance lacks 20 hours, it would be possible find the extra hours from other projects. Applying for more hours officially would risk prolonging and delaying projects due to the current lines of decision-making. Moreover, culturally, the time registration system made employees reluctant to support each other. One of the employees told me that if, for instance, one asked a colleague, 'Could you help me with this?' the common reply was, 'Do you have a time strip?' Thus, I identified certain unintended scenarios where the time registration system was exploited by entrepreneurial employees, was bypassed 'legally' by the administration or impacted the culture and the relationship between colleagues.

7.6.2. Present and future banking

As citizens, we may take the institution of banks and their role in society for granted and perceive them as necessary societal institutions. When I interviewed employees of FintechOrg about innovation, one of my questions was, 'What is a bank?' I found this a natural question, since FintechOrg made a living providing IT services to the banks whose market was under pressure. I thus thought it was reasonable to wonder, naïvely, in a way, what is a bank, actually? The question was met with surprise and astonishment by some of the interviewees. In the following, I discuss the purpose of banks and banking through the perspectives and stories of FintechOrg's employees. The text revolves around the themes that emerged through the interviews: infrastructure and circulation of value, banks and their income, payment tools, trust, banking consultancy and the technology behind the Bitcoin currency, Blockchain.

Banks and banking

First, Johan, a business consultant, explains why FintechOrg should be interested in future banking at all:

'What we can do, as a humble partner, a humble servant, is of course to challenge them [the banks] a bit on their decisions: are you quite sure that this is the right way? Because what we see on the market is that your customers are moving in this or that direction, or that they will use banks in this and that way or something like that. So, are you sure that this is what you want?'

Me: 'You say, "What we see on the market…" How can FintechOrg legitimize that FintechOrg sees something on the market that the banks don't? It is their market!'

Johan: 'I am so happy that you ask that question. That really is a very good question. I would say that we have at least assumed that that's a task we can do. From a historical perspective, I think we have been able to do that. I don't think that banks have allocated resources to do it themselves. They have looked at their close market, they have looked at their customers' current behaviour and things like that. But they have not been looking forward, asking, "What is happening elsewhere in the world in comparison to our [world]?" Or, "What kind of generation is the upcoming one?"'

Johan acknowledged that of course the banks had been preoccupied with their own future; however, that had been based on what he called 'classic banking segmentation' and on some very good banking solutions, which had targeted the segments. In other words, they had failed to look outside their own world – according to Johan.

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When I interviewed, Anne (one of the directors) she laughed when I asked her what a bank was:

'That's something you trust. Oh boy. [quiet and thoughtful:] It's very funny. Yes, what is a bank? A place where my money is being processed sensibly, confidently … securely! Yes, what do I know about what a bank is? I would not have expected that. [Laughing] It is something about money in and money out when I need them. When I have too much of it, they [the bank] borrow it from me. When I need to send some to aunt Oda, I can do that too. And if I were a company, there are also the products and services I need to run a business.'

She continued by stating that it was a place that she could feel confident about and admitted that this confidence was challenged in FintechOrg's country of residence today, due to the financial crisis. She elaborated and gave an example of a young student she knew, who had demonstrated confidence but lost on that score. The young student, aged 21, had been convinced by the bank advisor that he should borrow 150,000 kr. and use the money to buy shares in the same bank a few weeks before it went bankrupt. Anne explained how the public's trust in the banks might have been put under pressure. She had also an idea about the payment tool, which to her was about the future.

Anne: 'For me it [money] is … yes what is that … money? … Money is also something about the future. Let's take the pension (…) or when I retire. For me, it's also money that's not there yet. The time horizon. One thing is they [the bank] treat my money well right now, or my debts, but another thing is what they do in the long run too.'

Another employee, Morten formulated the definition of money in a more abstract way:

'Money is an abstraction of trade value. In the past, when we [historically] had the barter economy, two apples for a banana was cumbersome, but it expressed, what is the value compared to something else? Money is an abstraction on that. It is this broker thing. Money is still physical and concrete.'

He referred to a particular challenge concerning digital money, as it is an abstraction of an abstraction:

'And now we are almost dealing with an abstraction of an abstraction of an abstraction due to all our digital stuff.'

He referred to the fully automated payment service[72] and the payment solution on our mobile phones – Mcoin or Slide.

'You never see it,' he said and continued, 'I exchange my working time for money. I could also trade it in for a hen and some potatoes.'

In Morten's opinion, there was no money involved in ordinary payments anymore. He quoted Bill Gates: 'Banking is essential, banks are not,' meaning that while we need to trade with each other and make payments for goods, it will not necessarily be banks that facilitate the transaction. Their business model is under pressure, he stated.

'Basically, they need to figure out what they are. What do they offer as unique: knowledge and the wide care for the client's life and advice about it. But [if that's the case] then you have to rise above sales! And as long as they're trapped in that "what can I sell you?" attitude, I think they're losing.'

To Morten, banks had to sell something else. They needed to open up new markets, sell knowledge about how to manage finances or help people with loan applications. However, he was also a bit reluctant because in his opinion there was a limit to how many banking products we, as customers, would need.

'The problem is that there is a natural ceiling to how many banking products you need. How many credit cards do you need? There is a level where it just flattens out. It ends up in overbanking,' he stated.

One of his colleagues, Per Michael, answered my question: 'So banks, whether they are national banks or central banks or commercial banks, they make the symbolic tool, money, something we can work with and trade with. And it is damn smart.' He added that a bank is simply what makes the tool of money flow and identifies the actors in that infrastructure. In addition, he also touched upon the new Blockchain technology that supports the crypto currencies, such as Bitcoin:

'We are little more than what Blockchain can also do. We ensure that the parties can be identified; to a great extent we ensure that things flow.'

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[72] Here Morten referred to the automated monthly transactions of a bank customer's fixed expenses (rent and so forth), which the bank system can handle without involving the customer once the recurring transaction has been set up.

Another colleague, Tobias, formulated his view on banks as follows: 'If you ask me, I will say [a bank is] a time machine. I see it as a time machine, primarily because they [the banks] allow you to borrow from your future. Your future possession will give you money [today], and from that they [the banks] will take their slice of the cake. But they also convey between people what one can borrow from one's future.'

Tobias referred to countries in Africa where a huge part of the population does not have a bank account and are not able to get one. However, they do have a mobile phone and an account connected to their phone. Hence, the mobile phone company provides options for people to send mobile phone credit to each other. Thus, in spite of lacking access to banks, they are nevertheless able to trade with each other and, for instance, pay for a bike with phone credit. 'It's cool, isn't it?' he asked rhetorically and referred to it as 'empowerment of a group of people who otherwise couldn't be so flexible.'

In this example, the mobile phone company (it later came to my knowledge that the company, Tobias referred to was *Safaricom*, which operates in Kenya and Tanzania) provides the infrastructure, has created the tool (mobile credit) that Africans have agreed on as a value they use in exchange for goods. Moreover, it also stores the value.

The banks' income is threatened

What FintechOrg's employees told me was that a society does not necessarily need banks as we know them today to enable value to circulate among citizens. Moreover, it seemed that customers are moving away from banks. Tobias's colleague, Johan, confirmed this point by telling me about bank customers not needing the banks, but vice versa – the banks needing the customers. This was a surprise to me. How was it possible to run a business without customers needing your products, so to speak? Johan was in doubt himself.

Johan: '[They] have to be banks in a new way.' At least, it's a different world to act in than we have been used to.'

Traditionally, he said, the bank had certainly decided many things for the customer – when do you have access to the bank, when can you get a loan; moreover, you have to book a meeting for advice and so forth. Previously, it was the bank that set the terms and conditions for the interaction. Johan thought that the banks could easily reach across what he called the customer's

context and the customer's daily life and into the customer's network and concluded, 'But you just have to acknowledge that you need to be where the customer is, and that it is the customer who is in charge.'

In an interview earlier that year, one of the executives, Jan, expressed the same doubt about the need for banks.

'But that's really true. You don't need the bank. You don't need that place to go to [and get advice]. But you do need the service, you need that universal exchange unit. Then you also need a place to store it safely so that it won' be taken away from you. If you just walk around with your money in cash, there would be a lot of people who would be robbed during the first days of the month. Or we would have to spend a lot of money on police so that people weren't robbed.'

Another colleague, Jens, also considered the question of the definition of a bank relevant. 'Good question,' he said and then repeated the question in slightly different words:

'Why should you use a bank? (…) The transaction banking part does not have to be handled by banks. Payments simply means moving some money, money is digital today, so why should we need a bank? Mcoin is a good example of that. It runs only on credit cards, Mastercard and so forth. Anybody could have made that application,' he said and referred to Facebook as a possible provider too.

Also, Apple Pay having three billion customers was mentioned as a possible company to launch an application for banking, thus bypassing the bank. Much of the banking business is not necessarily dependent on banks, he told me. Although nationally, the mobile payment system is dominated by a large bank, other kinds of businesses could take over:

'Perhaps, it [a large bank and the mobile payment solution 'Mcoin'] becomes outdistanced by Apple and Google (…) because they're global. (…)'

To sum up, we use our mobile phone for paying different kinds of bills and debt, and we might soon borrow money directly from Apple, since that does not differ much from what we know today as money deposited on, for instance. The Starbuck Card or the national payment solution for public transportation in the Scandinavian countries. He concluded by repeating the question: 'Why should you use a bank?' Like Per Michael, Jens also referred to the Blockchain technology. By using Blockchain to transfer money, banks do not need to be involved, they both explained. 'If,

for example, you transfer 100 dollars to Tanzania, the money goes into a mobile account,' Jens said, referring to the weak banking infrastructure in Africa, which Tobias talked about too.

Me: 'But there still needs to be a link between the mobile account and the Blockchain technology.'.

Jens: 'It could be Bitcoin …'

Me: 'But someone has to make that transaction?'

Jens: 'You can just do it via Bitcoin. I can transfer 100 Bitcoins,[73] you know. What do I need local banks for, I can simply withdraw the money from my Starbuck account, where I have my money in advance, or my mobile account, or my Facebook account or borrow from Apple, or Google or anybody else, who will give me a loan.'

The infrastructure for transferring value could consist of more independent and partial infrastructures. Traditionally, in the FintechOrg's country of residence, transferring money between one's bank account and, for example, one's mobile phone operator would be done via the banking infrastructure. Yet, today, multiple infrastructures compete or supplement each other – from the mobile phone infrastructure in Africa to the newer Blockchain technology that operates globally and independently via computers connected through the internet. Each time a new transaction occurs in the infrastructure of the chain, it becomes visible on all the connected computers, and thus, everybody in that chain by default acknowledges the transaction. The system is also known as 'the incorporation of trust' due to its specific architecture. Tobias explained:

'The whole concept that you have a consensus-based distributed system is, as I see it, the most innovative aspect of this cryptocurrency. (…) The core of this system is that we agree on what we agree on. And you can use that for a lot of things, you can upload a document, and you can put it into Blockchain, and you can use it as proof that this document existed at this [given] time. Isn't that amazing? You can transfer information at almost no cost. That's central.'

Tobias explained further that the concept behind this technology works by providing a big list of who owns what. According to Tobias, it's a key technology that is going to play a major role in the

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[73] At the time of the interview in summer 2016, the price of Bitcoins was relatively low compared to today. Thus, by mentioning 100 Bitcoins, he was not talking about a large sum of money. The number of Bitcoins mentioned just served as an example for 'some money'.

future. Not necessarily through the specific currency of Bitcoin, but the technology itself: a distributed system that achieves agreement on what we agree on. This means that we can do all kinds of trading without needing authorities or individuals to approve what the specific exchange of goods and the agreed value revolves around. It's automatically approved through the technology.

Validating transactions and incorporating trust

According to Tobias, the banks will, sooner or later, be forced to deal with the Blockchain technology, which will provide economic freedom to a far greater number of people due to its much cheaper transaction cost compared to the cost of using banks. 'One could say that in the current system, it is much easier to skim off the best part,' as he formulated it and elaborated that sending money across borders involves expenses – for example when using the global financial community Swift, which has been established for making international payment transactions possible. The organization is owned by approximately 200 banks worldwide. When payments go through the Swift infrastructure, it has to be converted to US dollars first. Already at this point, the sender has to pay for exchanging his or her local currency into US dollars. Next, every time money is sent through the system – from, for instance, a bank in Scandinavia to a bank in Australia, it passes through a number of banks, and each takes its share.

The degree of speed and safety is also a value that has a price. If you need your money transferred quickly through the system it is more expensive, and if you want to be sure that you get your money back, even if the bank goes bankrupt exactly at the time when they are holding your money, you can buy insurance. In a way, the current system works like an analogue transaction, where cash is handed over from one carrier to the next all the way through the different countries. In other words, it is digitization of yesterday's system. To Tobias, the choice was fairly simple. According to him, FintechOrg and the banks could engage in the Blockchain technology and sell what is missing around the technology. That could be the effort of identifying the actors in the system, or it could be offering insurance; in general, he thought that instead of refusing to engage with Blockchain, the banks should say, what are the elements surrounding the service that we can offer our customers?

Tobias: 'And that's why we [banks] go from being intermediaries to becoming workhorses that improve the experience [of the banking services].'

Me: 'But why do you call it workhorses? Intermediaries are workhorses too, I guess, or …?'

Tobias: 'The intermediaries take something and pass it on [for you]. But a workhorse creates value.'

Tobias also talked about the difference between an independent firm being disrupted, for instance Kodak or Blockbuster, versus the banks and the banking system.

'You cannot bypass the financial system as it is today,' he said. 'The financial sector is entangled in economics and politics. If you want to leave, you need a community of people who don't use the banking system.'

His point was that banks did not need to worry about being disrupted because they are tied into the political system.

Future banking as a question of belief

Another employee, Jens, whom I also interviewed during my fieldwork stated that cash was 'an outdated technology. (…) If you think of cash, then it's nothing today.'

Me: 'So, what do you mean "cash is nothing today"?'

Jens: 'Cash, I think, has failed.'

Me: 'Why?'

Jens: 'It is too expensive to move around, that is, moving it … the physical aspect of money, notes and coins (…), there is no reason for that … It's an outdated technology, I think.'

I also talked to Petter, the head of the development department, about cash and the character of the payment tool. He could not imagine that what he called 'virtual currencies' would evolve into a means of payment:

Petter: 'I don't believe in it for now. It's hard to predict, but I simply don't see them [the virtual currencies] getting enough power to start being a payment solution for physical goods. I know there are terminals in Canada and in the United States, too, that can exchange Bitcoins. I don't think so. I don't believe it's breaking through.'

Instead, he thought that payments would become increasingly digital, while cash would disappear. He also believed that credit cards would disappear:

'I believe in contactless wireless payments with those things, with those devices now available, if we would get to a point where we had a chip in the arm at some point. … But I think it would be driven by whatever would be easy and convenient. And then I don't think the virtual economies have the power to break through, compared to the existing currencies worldwide."

Concluding remarks

To conclude Chapter 7, I will briefly recapitulate what appeared in the field in order to prepare the reader for the following analysis. First, we get an impression of the atmosphere at FintechOrg as it was when I entered the field and, in extension of that, a little information about the conditions for managing FintechOrg. On this topic, Hans stressed in my interview with him that FintechOrg and its clients needed to move as one, 'engage in dialogue before there is a language', and that FintechOrg and its clients could not succeed without reaching out to each other. From here I described three change initiatives during the first year of my fieldwork. The first was the innovation initiative, which the executive team decided to let an innovation manager organize; an innovation manager who was new to the organization but was a former director of a client organization; the second was a new change initiative that revolved around the reactivation of a former empowerment concept called Chilli; and finally, in December 2015, the third change initiative was launched, focusing on a new way of organizing the IT production introduced by external consultants who were to teach employees how to carry out their work in a new way. Having described the course of the executive team's three change initiatives during a one-year period, I then presented what happened in the tool-dropping experiments, which I introduced and explained in the methods chapter. The two final sections of the chapter – controlling time and present and future banking – deal with two specific themes, which to me seemed particularly noticeable, and which will be subjected to in-depth analysis in Chapter 8.

Chapter 8. Handrail-building processes and dangerous design

In this chapter I analyse the empirical material via the framework developed in Part 2 as it appears from the Concluding Discussion in Part 2. The analysis is furthermore guided by the research question about how to organize for innovation in the context of a Nordic fintech cooperative. Briefly to recapitulate, the theoretical framework is predominantly based on Weick's theory, first, because it has the capacity to connect across ontologies, and, second, because it describes in detail what takes place in organizational life (Weick, 1995). My analysis addresses three main themes, carved out of the material, and further offers two examples of what may happen when people fail to drop tools. The first theme is FintechOrg's tradition for collaborating and engaging in sensemaking with clients through handrail-building processes, which demonstrates how continual improvisations have been taking place for decades. A second theme is the capability to connect to cues in the periphery, which becomes undermined due to the dynamics of what Weick calls 'highly coordinated people'. This may be a consequence for an organization that works very closely with its clients. Bower & Christensen (1995) refer to this phenomenon of 'highly coordinated people' as a group of people who keeps doing what has worked in the past, while Henderson (2006) talks about 'lack of market-related competences). This stops the handrail-building processes *before* the handrails connect with the cues in the periphery. In other words, the close collaboration with clients undermines the ability to sense and make use of cues in the periphery. This is further exacerbated by the presence of several versions of the old managerial tool of organizing from the top down.

Old tools strengthen the individuals' understanding of their own world and embed their identity in what I refer to, drawing on Weick's terminology, as 'dangerous design'. The latter has grown into taken-for-granted constructions and seem to be difficult to unravel. This is necessary, however, in order to prevent sudden unexpected and potentially damaging events. Thus, a third theme in the analysis is the tool-dropping capability, which increases individuals' unravelling capability. While the methods chapter describes how and why I organized these tool-dropping experiments, in this chapter I analyse the experiments related to innovation and disruption and furthermore offer examples of 'dangerous design' and show how this threatens organizational

stability, in part by analysing what I consider a micro-disruptive event that occurred during an interview.

8.1. Handrail-building processes

The CEO's idea that FintechOrg should move as one can be seen as a way to direct attention to the need to follow the clients and avoid bringing ideas forward that might be too innovative in relation to their situation. Nor should they focus on persuading the clients, 'winning the argument'; instead they should encourage dialogue and thus achieve a shared understanding of the business environment and new initiatives. This might be seen as somewhat similar to what Weick calls 'holding labels lightly' (2003, 2004a), and what Hjorth (2016) articulates as 'cooptation', although Weick sees it in a more positive light – in this case with an emphasis on FintechOrg's ability to follow the clients. Regarding the latter, the entrepreneurial employees are encountered by entrepreneurial executives who acknowledge their ideas but refrain from pursuing the new idea and thus cunningly resist the new. For instance, different members of the organization had different assessment of the crowd-funding project. While the business manager, Jens, found that the potential should have been explored further, the CEO, referring to the bank directors, said that they 'were really interested, but they would rather wait and see.' This exemplifies a way of accepting the idea while simultaneously rejecting it by stalling.

Stalling avoids the issue of yes or no, stop or go. It seems to be what Hjorth (2016) calls cooptation – entrepreneurial managerial behaviour resisting the new: approval *and* rejection – or, in a more positive version, what Gehry (2004) calls a 'liquid stage'. Here, though, the condition is not as positive as in Gehry's version. Where Gehry intentionally refrains from making a decision awaiting better timing, Hjorth characterizes this awaiting as a negative experience of an intentionally progressive proposal. Austin and Devin's version, 'release', could be seen as another way of expressing the liquid stage. In line with Gehry, their description of what goes on in the interaction between the director and the performers can also be understood as a positive accomplishment. As in Gehry's version, however, Austin and Devin pursue a positive result in a bigger picture, creating a play for a specific audience on a specific date. From the perspective of FintechOrg's CEO, he too pursues an intentionally positive result for the organization in a bigger picture.

8.1.1. Looking out for cues

Hans was ceaselessly engaged in making sense of the new, as he told me in the interview, saying that one of his tasks was to strive to make sure that FintechOrg and its clients moved as one, or that they had the same picture of the world. In his own words, this included an encouragement to 'engage in dialogue before there is a language' or 'knowing who has put things in motion and how to get inspiration', thus articulating what Weick (1995, 2004b) calls language as enacting (based on Winograd and Flores, 1986). Inasmuch as language does, enacts, brackets out airy nothing (Weick, 2010, 2011) as part of the sensemaking process incorporating small pieces of flux, it is simultaneously a part of the organizing process announcing and affirming the new. Moreover, he stated that FintechOrg and its clients needed, 'a common perception of the world,' something which he devoted a great deal of time to, striving for the best possible degree of coordination.

Following Weick, I see this as what Hans describes as looking out for cues (who has put things in motion, what *is* in motion, what is becoming?) from a spectator perspective, passively waiting and simultaneously making sense of an understanding (of the world) he shares with the board of directors and then later 'orchestrating our ability to move as one,' or in Weick's words: 'Sensemaking is about contextual rationality. It is built out of vague questions, muddy answers, and negotiated agreements that attempt to reduce confusion' (1993, p. 636). Moreover, the 'basic idea of sensemaking is that reality is an ongoing accomplishment that emerges from efforts to create order and make retrospectively sense of what occurs' (ibid., p. 635).

Hans's suggestion to his middle managers to 'engage in dialogue before there is a language', and the way he saw one of his tasks as enabling FintechOrg to 'move as one', internally as well as externally, making sense together with the clients, seemed to be a consistent idea of how to manage and lead FintechOrg, a tool, I would suggest, that nevertheless was not identified in the tool-dropping experiment, and which thus remained invisible to the organization as such, although the actions were confirmed by Per and Tobias from a different perspective. While Per (as one of the heads of client relations) appreciated Hans's stakeholder management skills in relation to the clients, Tobias appreciated but missed Hans's engagement during the first Chilli

program and missed his awareness of the employees. From their point of view, it seemed that stakeholder management was a skill or competence limited to the CEO, while there was no articulated connection between his mantra of 'taking the dialogue' as a possible specific tool needed by managers of FintechOrg and their encounter with the clients. At least, I did not hear about 'engage in dialogue before there is a language', although naturally, employees and managers did talk with clients. From my point of view, 'taking the dialogue' is an important tool that could benefit from being articulated as such, instead of living a secret life.

8.1.2. Negotiations and shareability constraints

Now, taking my point of departure in the interviews about innovation in general and innovation at FintechOrg in particular, the executive team member Anne, who was responsible for FintechOrg's Development Department (and who during my field work had expressed surprise about the executive team being seen as a a centre for innovation) revealed that she actually had several examples of innovation conducted by the team of directors (although she did not explicitly state that it was conducted by the executive team but only referred to 'we' coupled with allusions to the executive team as the agent).

For instance, Anne described how the executive team ('we') had handled the effort of getting Bank B on board, which would be defined as innovation in the terms of the innovation literature – a new idea or process (Ahmed & Shepherd, 2010; Dodgson, Cann, et al., 2014; Hobday et al., 2011) and related organizing processes that gave rise to new practices (Hjorth, 2012b), such as Bank B's employees now using FintechOrg's digital infrastructure and exploiting the new anticipated benefits and, importantly, continuing to organize around the new invention so that the new detail changes the whole (Hjorth, 2012b). Thus, a process of negotiations involving the bank representatives and the executive team and the board of FintechOrg must have taken place (although I do not have detailed knowledge about this, I find it likely because the innovation constituted a deviation from the normal procedures.)

Additionally, it did not seem to be an unusual procedure. Anne's story about 'getting Bank B on board' was told in a calm and easy way without complaints. Weick would see the realization of

the new collaboration, such as this one, as an example of improvising the organization and would regard the result as a consequence of sensemaking and the negotiation of constraints or surprises. Improvisation must have been a natural cultural accomplishment over the years, since the organization has survived more than 50 years, a feat that Anne attributed to its unwavering commitment to doing the best for its clients – having a close relationship with the member banks, listening to their challenges and developing solutions to match their needs etc. FintechOrg has thus been in a constant mode of change over the years, building a culture of negotiation and facilitation of collaboration, maintaining the organizational setup as a Nordic democratically organized cooperative.[74]

FintechOrg's gradual development over the years based on innovative practices and close relationships with the member banks as its mode of operation has in a way been a blessing, as it has enabled the organization to stay in business for more than half a century. It may also be seen as an expression of 'an art of the weak', to use the term Hjorth (2012), referring to Deleuze (1983), uses to describe organizational creativity that 'destroys the reactive-negative forces and makes difference possible (…) The affirmative tactician, creating by transmuting, I describe as practicing an art of the weak' (Hjorth, 2012c, p. 170). In other words, FintechOrg's employees (and its managers and executives) have generally been able to 'transmute the new into acceptance' (Hjorth, 2012c). Furthermore, with regard to Gehry's way of working with clients, he stresses the importance of including the decision makers in consensus-driven development processes in order to limit the risk of rejection of the final project, stating that if those paying the bill are not part of the process the final work may be too exposed to rejection (Gehry, 2004).

8.1.3. Examples of improvisation

In the case of FintechOrg, the small incremental improvements, for example the geographic blocking of credit cards, or the larger improvement of the new FintechOrg platform, there was, to my knowledge, no celebrated heroes. Instead, it had just sort of happened as a natural, organic

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[74] This statement does not come from observations or studying archives, which lies outside the scope of this work. It is an observation based on the age of the organization, my personal knowledge of work in associations and the ease with which the story about 'getting Bank B on board' was told. I will not, however, be discussing how the daily life at FintechOrg works or how the organization balances democracy with the diverse needs of the banks.

and collaborative development, which to me suggests that it was perceived as a 'normal' or 'standard' procedure. FintechOrg's employees, managers, executives and clients were all used to improvements on a continuous basis. A third example of the innovative mindset of FintechOrg is Petter's and his coworkers' attempts at creating a mobile payment solution to be used by bank customers broadly, independent of whether their individual bank is a FintechOrg member. Petter and colleagues had had the original idea and had worked hard on it, but unfortunately they could not 'crack the code' before they ran out of time. They attempted to create a new service for end-users, but 'the idea did not stand the test of time.' In this sense, it stands as an example of the innovative capability and mindset of the organization's employees and their eagerness to contribute to their organization's success and the creation of new solutions. Simultaneously, however, it is also an example of the tendency to stop new initiatives due to the lack of a profitable business case and the reluctance to spend time without tight control, in other words: viewing change and innovation as an invention and as a business case.

While the three former examples – developing the geographic blocking of credit cards, developing the platform and getting Bank B on board – were described as if they were no big deal to conduct, the mobile payment solution project was at much greater risk of being closed down, because there needed to be a profitable business case due to the valuable time it would presumably take to develop the service. Thus, Petter, as head of business development, accepted that barrier to his work. This points to special conditions for working with innovation at FintechOrg having a tight relationship with clients and shareholders and a keen focus on managing time and money.

The idea of innovation as being conducted by individuals was presented both by Anne, the executive responsible for developments, and by her head of business development, Petter. The view of innovation as 'Brilliant ideas seized by the right person with the right attitude at the right time' or by 'bright minds' (as stated by Anne and Petter earlier) hampered, in a way the understanding of what had been taking place for years – the gradual, yet invisible improvisation of the organization and its services. This was nevertheless assessed as being insufficient today. Perhaps because bright minds are usually visible to an organization; however, no individuals were celebrated or identified as having developed new solutions on their own. Hence, it seems that

the requirement of visibility (no bright minds etc.) undermines the invisible but nevertheless successful innovative culture.

In the case of the mobile payment solution, focus was on developing a product that had already been given a name, and there were no reported attempts at making sense of the new idea by building handrails leading to the clients. The latter, according to Gehry (2004) is a way of helping clients to understand what is going on and gradually buy into it. If there are no handrails, a positive decision about or an affirmation of the new would be difficult. In the case of the mobile payment solution, there were apparently no handrails to help FintechOrg's Investment Committee embrace the invention and understand the broader benefit of the service, and thus be willing to let 'the hours roll'. Hence, there was no intention to reach out to the clients' customers in order to build or expand the infrastructure. This also points at the idea among FintechOrg's management in general that innovation equalled 'invention + business case.' What is missing here is the organizing processes (Hjorth, 2012b), which are not taken into consideration but are guided by the focus on time and money.

8.2. Cutting off cues in the periphery

However, the blessing of working so closely with clients as FintechOrg has done over the years may also be a curse: if the new is articulated as a potential innovation that should be 'bracketed out of flux' and 'stimuli', as Weick (1995, 2004b, 2010, 2011) articulates it. Since a fixed design created by bright minds, it may be blocked if it does not suit the clients, or if there is no paying client. It takes valuable time to get all relevant decision makers included in the handrail-building process when seeking consensus for accomplishing novel services. It forces FintechOrg to focus rather narrowly on the present banking industry and coerces employees, managers and the executive team to embrace the taken-for-granted of the industry. This is why the dialogue between FintechOrg's employees and clients, as shown by Hans' encouragement, is so important. It is dialogue that moves people – their capability to create a language together with the clients before they do so themselves. However, moving as one might also have the secondary effect of becoming highly coordinated, as pointed out by Weick:

'In a reversal of Robert Irwin's maxim [the six phases of compounded abstractions], people who coordinate tend to remember the name of the thing seen, rather than the thing seen and the thing felt. If crucial events occur that are beyond the reach of labels that smooth social life, then coordinated people will be the last to know about those events.[11] For this reason reified designs can be dangerous because they encourage perceptual shortcuts such as normalization.[12] If people rely on such shortcuts, then they rarely feel any need to update their labels, categories, or inferences.[13] If a coordinated group updates infrequently, there is a higher probability that it will be overwhelmed by troubles that have been incubating unnoticed.[14] Highly coordinated groups are the last groups to discover that their labels entrap them in outdated practices[15]' (Weick, 2004b, p. 42).[75]

Although the efforts to coordinate can be perceived as Weick expresses it above, the fact that FintechOrg is a cooperative should of course also be taken into consideration. However, I can nevertheless conclude that while the executives seemed to have a keen interest in innovation and the creation of new solutions for the clients, there was no real willingness to question the taken-for-granted labels, in this case, of time, banking and money (something which Weick encourages us to do in order to prevent groups from being 'overwhelmed by troubles that have been incubated unnoticed' (ibid.). In the field this was articulated as 'disruption' and was a concern for the executive team when the innovation agenda was launched. This is also to say that such a focus cuts off cues in the periphery that might otherwise support the updating of 'labels, categories, or inferences' (ibid.). When I asked them about, for example, their understanding of a bank or of money, during the interviews, they answered in different ways, but it was not something they were used to doing. It was not a natural theme to reflect on and discuss, and to my knowledge they did not return to it afterwards, which leads me to conclude that it was not important.

8.2.1. Examples of people being highly coordinated

An example of people being highly coordinated within FintechOrg's business environment was the appointment of an innovation manager from FintechOrg's own group of members despite the mantra of 'outside in'. This mantra was understood as underscoring the importance of maintaining a focus on the clients' business and basing the development of new services on their particular business needs. However, the opposite approach, 'inside out', as a consequence of an

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[75] In the quote, Weick refers to his perspective on what it means to coordinate, which is to 'transmit and receive' which 'affects cognitive processing (cognitive tuning), which affects grasp (high and low differentiation), which affects activity' (ibid., p. 51). It lies outside the scope of this chapter to extend the quote with further details; I recommend the interested reader to engage with Weick's own text.

overly close coordination might also have occurred. Having a new appointee who was rooted in the same industry's groups of directors would make it easier to 'remember the name' (Weick, 2004b) and avoid seeing or feeling cues outside the coordinated worldview. This is of course also a matter of personality. However, my aim has not been to follow and assess the work of the new innovation manager, but to pursue insights into change and innovation processes at FintechOrg stimulated by the main research question: *How can we understand the practices of organizing for innovation in the context of a Nordic fintech cooperative?*

I did not see attempts to question the taken-for-granted; instead, as I will unfold later, the top-down management thinking for example confirmed the idea of leading change and innovation by establishing the BA Group. In my view, appointing a former director of a member bank as innovation manager at FintechOrg is an expression of FintechOrg's excessive focus on itself and its own industry and, thus, a way to further making people highly coordinated and promoting taken-for-granted assumptions, thereby reducing the innovation capability instead of acting to strengthen it. Another example of people being highly coordinated is the matter of time. The oxymoron 'time puts work processes on pause', expresses the phenomenon of being highly coordinated, perhaps most clearly exemplified by the graduates complaining about the work load in the canteen, although they had already assimilated to the culture by accepting that they might 'run out of hours'.

8.2.2. A voice outside the highly coordinated group

An example is the young graduate Simon, who in my interpretation was disappointed to realize that in his first job he was going to work with such an old tool as the FintechOrg mainframe. Even though there may be a good rational explanation for keeping the mainframe, it might diminish FintechOrg's capability to change, because the knowledge of a potentially obsolete organizational tool will prevent people from letting go of the old perception of the organization. It might also prevent them from acting differently and, presumably, innovatively with the view of developing a more contemporary service, because there will be nothing to motivate a different mindset. If we turn this upside down, on the other hand, if the goal is to innovate the organization in a conservative and reluctant environment, it might be a good idea to change tools and equipment,

as this will presumably promote change through communication and enactment, and according to Hjorth (2012b), to 'transmute the new into acceptance'.

8.3. Reluctance to drop tools

Even though the executive team showed an interest in the tool-dropping experiment, it proved difficult both to drop tools and to add the presented research-based tool of the tool-dropping workshops to management's toolbox.

The two tool-dropping experiments described in the methods chapter showed important indications of openness and desire for change and innovation in the field. The experiments were good occasions for reflection among both the executives and the middle managers, because they offered time and opportunity to share reflections. Their different tools were discussed, but these discussions were not very productive in concrete terms.[76] No tools were actually dropped, and there was no attempt at returning to tool-dropping later as a means of reflection on change and innovation. I followed up on the experiments by asking the participants about their experience afterwards. Hans described them as a 'fun exercise,' 'almost like play'; and Jan's comment was that 'if we were to start all over again – what would we then bring along?' One of the reasons for this question was the debate about whether FintechOrg's mainframe could be dropped. It was an old invention, 'yes', but as it still worked well, there was no serious reason to drop it, and, not least: there was no business case in dropping it, which meant that it was not worth spending the money on creating something new.

However, if FintechOrg was indeed to start over from scratch one day, it would be less likely to bring in a mainframe. In this context, the refusal to exchange the mainframe with a new solution was also based on the direct economic benefits of change deriving from an understanding of innovation as invention + direct economic surplus rather than potentiality through new organizing processes. Tools, besides being coupled with identity, are also linked to time, as Weick suggests

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[76] I discussed this with some of the executives afterwards, and they acknowledged my observation but argued that since it was only a research experiment and not a formal FintechOrg strategy meeting, it might be a natural output that the tool-dropping experience was not transformed into new practices in the organization.

(1993, 1996, 2007). Hence, they are evidence of the past, which leads to the connection between tools and identity. Hence, the more of the old tools an organization keeps, and the longer it keeps them, the harder it is to change the perception of the organization's identity. The risk, then, is that '[w]hen tools are closely tied to identity those tools can preclude ways of acting. In addition, if you preclude ways of acting then you preclude ways of seeing' (Weick, 2007, p. 11). At FintechOrg, this means that for employees, managers, executives and clients alike it may be challenging to change the perception and the image of FintechOrg if too many old tools contribute to tell a story of the past.

8.3.1. Settling for the first explanation

In a kind of ambiguity, on the one hand, there was a wish for change and renewal at FintechOrg, while on the other hand nothing changed directly. Tools coupled to time and identity naturally raise the question of whether it is the right time for dropping this or that; and besides, who are we, if we drop this or that? On the other hand, during my fieldwork period FintechOrg did actually develop a new way of producing new IT services, which replaced the innovation agenda. Turning a large-scale IT production around is, of course, a major accomplishment. However, although it might contribute to a renewed perception of FintechOrg due to the new tool (the new production fashion) the goal was not necessarily innovation, but a way to increase immediate profitability by means of quicker production.

It lies outside the scope of my insights to assess the need for altering the production mode. I will, however, comment that it seemed to me that this altering of the production was accepted due to the promise of a beneficial economic outcome which I see as a handrail leading to the new production mode. Hence, the risk of failures – 'crossing the red light' as Anne put it – was accepted. This may be similar to 'active inertia' (Sull, 1999), 'dominant logic' (Bettis & Prahalad, 1995; Prahalad, 2004) or one of Austin and Devin's (2004) production styles: industrial making as opposed to artful making. In other words, FintechOrg's executives decided to do what they had always done – only doing it better, or, following Hjorth, they 'dictated the possible':

'the result is – all those who have done well under the old conditions, i.e. managers – mostly try to stop movements from which "the new" emerges since it challenges the present order

(Schumpeter pointed out, 1942 [1962]. Instead, controlling a specific version of the new is preferred, which is achieved by dictating what is possible in a blueprint/strategy' (Hjorth, 2012c, p. 177).

'Doing well under old conditions' expresses the conservatism of FintechOrg's choice of turning the innovation agenda into an agenda of efficiency. This is exactly what the clients know, are comfortable with and expect will help sustain their business by enhancing their way of working and their solutions in the name of immediate profits – and still FintechOrg's executives did not remove the risk of a 'cosmology episode' (Weick, 1993b). Rather, in interpreting their environment they relied on old labels and reifications (Weick, 2004b) or, following the innovation literature reviewed in Chapter 3, the risk of falling victim to hypercompetition (Biedenbach & Söderholm, 2008; D'Aveni, 1995; McGrath & Kim, 2014) and multiple post-industrial becomings (Hjorth, 2012b). Their actions confirmed Weick's insights about what tends to be absent in change management: 'a vivid picture of the flux associated with first-hand experience. Also missing are concepts and hunches that preserve small, subtle details whose foregrounding can produce large consequences (Weick, 1993a)' (Weick, 2011, p. 8). In other words, they closed their eyes for the small details that might grow into huge problems. To this I will add that subscribing to the subject-object dichotomy may decrease one's ability to build handrails to cues in the periphery, because there will be nothing visible or tangible to reach out for, no intention to prompt a handrail-building process that converts 'immediately felt quality' (as Pragmatists put it (Rylander, 2012)) into visibility and language.

The general management's response to the banks' situation was to enhance the banks' profit through the new agile production modes at FintechOrg; to me, this seems similar to what Weick and Sutcliffe (2015) refer to as selecting the first but potentially wrong solution[77] due to the difficulty of distinguishing between small and big breakdowns.

'Nonobvious breakdowns happen all the time. Some are a big deal. Most are not. But which are which? The answer to that question is hazy because we tend to settle for the "first explanation" that makes it feel in control. That explanation turns the unknown into the known, which makes the explanation appear to be "true." That can be a serious misjudgement. (...) the second explanation," the one that discomforting though it may be – treats the unknown *as knowable.*

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[77] As I have remarked before, this is not to say that FintechOrg's production fashion should not be changed and enhanced.

This second explanation is built from processes that produce an ongoing focus on failures, simplifications, operations, options and expertise. Organizing that incorporates processes with these five areas of focus helps make breakdowns more knowable' (Weick & Sutcliffe, 2015, pp. 1–2).[78]

Weick's and Sutcliffe's perspective would be that by choosing the efficiency and profitability FintechOrg's general management risk to 'misjudge' their situation, which exposes the organization to a breakdown. A further comment to this choice is Hjorth's emphasis that the 'efficiency-driven industrial economy', is dubious and problematic in 'an innovation-driven post-industrial economy' (Hjorth, 2012c, p. 177). It was, however, a natural decision for FintechOrg because its vision was to enhance clients' profits as outlined in the introduction.

8.3.2. Enhancing old tools

Despite what I would call the 'invisible innovativeness' of FintechOrg's constant efforts to develop new IT solutions for clients (albeit sometimes perhaps only by slightly moderating old solutions), the executive team decided that the small daily improvements and incremental inventions were no longer sufficient and thus initiated the innovation initiative.[79] However, it seems to me that this had unintended side effects, such as the employees' confusion about the innovation agenda and blocking of the new. Also, putting innovation on the agenda simultaneously reinforced old tools and the experience of the subject-object dichotomy, that innovation became something solid or fixed.

In hiring a new innovation manager, one underlying signal about innovation at FintechOrg was that what had been done so far was no longer sufficient; instead, centralization became the answer, as the effort was now visibly delegated to one specific person. However, people were

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[78] Weick and Sutcliffe open the first chapter in their popular book for managers seeking to build a resilient organization with two quotes. The first is by Winograd and Flores (1986), who state that a breakdown is not necessarily a bad thing to be avoided but should be considered 'a situation of nonobviousness'. The second quote, by Friedrich Nietzsche (1968), states that it is anxiety that makes us want 'to eliminate the unknown' and welcome 'any explanation, because it is better than none'. However, 'the first idea which explains that the unknown is in fact the known does so much good that one holds it for true.' (See their references at page 163).

[79] Contrary to this statement was Tobias's reference to a report by IBM on the lack of innovativeness of the organization some years ago. However, I have not had access to the report and have thus not drawn on insights from it or been able to determine its definition of innovation etc. The executive team might, though, have had it in mind when they launched the innovation agenda. I only heard about it via Tobias.

confused about the new initiative and fairly unsatisfied with it, as evident in remarks such as 'how should the interaction between Björn and the employees be?' 'Who should assess the value of the ideas?' 'Innovation is not that simple.' To me it seemed that from FintechOrg's business-as-usual way of handling change and innovation, it was now organized in a top-down fashion. This was underscored by the establishment of the BA group consisting of some members of the executive team and the innovation manager. The new position as innovation manager and the following establishment of the BA Group was a response to the multiple becomings, but it was solved with a management technology of yesterday, a top-down way of organizing.

The BA group was soon dismantled. I did not ask why, but I saw that the idea of having the unit led to frustration, for instance when the crowdfunding project was rejected. Such an idea funnel (the BA group and innovation manager selection panel) raises several questions: who has the insights etc. to decide whether an idea has a value that makes it worthwhile? Is an executive team or a board of directors capable of making decisions of new initiatives in a pick-and-choose mode of engagement for the executives? Here too, the organizing part of innovation (Hjorth, 2012b) is overlooked. A new idea or project is clearly vulnerable when it has been reified into a visible and specific artefact and is, furthermore, presented like a meal on a plate to people who have not been involved in the preparation or in sensemaking processes but who are to judge and negotiate the initiative based on their individual preferences, emotions and knowledge.

Parallel with this process there was the CEO's mantra, 'engage in dialogue before there is a language,' which I saw as an encouragement to interact through what Weick (2011, 2010) calls incorporating flux and airy nothing in the renewal of concepts and labels. In that light, the appointment of an innovation manager and the establishment of the BA group may be seen as contradicting the mantra, because cues that had been identified were cut off and left out of the general organizational discourse. When inventions were articulated verbally, the process of building handrails was already closed, the meal was prepared, and the new was easy to reject as something that was too far from the individuals making the decisions. Unfortunately, there was no discussion about what it meant to 'take the dialogue.' People might have known; however, I heard no reactions to or comments on the phrase.

With Weick (2004b), I would suggest that organizing for innovation in such a way overlooks the needed handrails to the new, the access to cues in the periphery, and thus unfortunately increases the rejection rate. (As Frank Gehry stated, he would never run a project without the decision makers involved directly in order to prevent rejection once the new building is finished (Gehry, 2004, p. 21)). I can at least conclude that both the BA group and the Center of Excellence were dropped after half a year, perhaps due to a lack of success or as a result of resistance not only by decision makers with the money and power to 'let the hours roll' but also internally, as perhaps best articulated by Sven: 'We actually have a … you know … isn't he "innovation manager", our good man Björn? That's his title, isn't it?' A fairly patronizing remark about a new colleague that does not exactly signal a willingness to collaborate but instead says, 'we know as much as you do (Björn) when it comes to innovation, and we have managed without you so far.'

8.3.3. Undermining the trust, honesty and self-respect triangle

As I stated earlier, Weick's trust, honesty and self-respect triangle may be seen as a tool for preventing organizations from falling victim to unexpected and potentially dramatic events. On an unarticulated level, this triangle seems to be missing here, since one of the questions I faced – 'what should we use banks for?', which was repeatedly articulated by the employees – was not openly brought up at FintechOrg. Instead, it might be seen as an example of 'silenced voices' (Alvesson & Sköldberg, 2009). Of course, openly questioning the concept of a bank would not be easy, since FintechOrg is owned by banks. Instead, however, the executives and the employees developed differing perceptions of the concept of a bank, a discrepancy that was revealed, in part, in the organization's way of handling communication and innovation.

Undermining the triangle by organizing from the top down

Drawing the focus away from the organization's traditional way of handling innovation (by improvisations and, I would add, 'handrail-building' processes) to the top-down selection of ideas and thus creating an asymmetrical relationship between management and employees' ideas and initiatives may be seen as counterproductive to the intention, as the employees were now required to present new ideas first to the innovation manager, Björn, who would then select

(judge) them before taking them to the BA group. Although Björn told me (and he told his colleagues) that he perceived his task as bringing ideas to the BA Group as loyally as possible, he was nevertheless bound to act as a filter between the employees and the decision makers. This meant that there was yet another step to the investment. Thus, there would be a fairly significant risk that employees' ideas and suggestions would be rejected along the way through the different steps. This raises the question about the motive to promote ideas and use time that was not defined by a time strip, which could constitute a formal problem at FintechOrg.

FintechOrg's new way of organizing innovation and new solutions to put the clients in a lead position may have had the opposite result, the reduction of initiatives, actions and results. Furthermore, as innovation was seen as isolated ideas, which were to be brought forward and judged, it became even more closely associated with time and money, as indicated by the comment from a person of a member bank, quoted by Jens: 'From where would you get the hours? (…) It costs money to investigate that!' In other words, time and money merge into one, becoming one and the same 'thing.'

Even though the executive team's intention was to increase innovation, several mechanisms counteracted this intention. It seems to me that by putting innovation on the agenda in this way – by hiring an innovation manager from FintechOrg's group of members – the executive team contributed to confusion and uncertainty and may have even hampered innovative processes by decreasing the handrail-building process, such as choosing not to organize around the crowd-funding project.

Undermining the triangle by measuring employees

Another top-down manifestation occurred in the meeting with the middle managers, where Anne told the participants that McKinsey would test and assess the creativity of those who should be involved in the new Edge project. This message was received with distance and humour, as described in the empirical chapter. In my eyes, the message indirectly undermined the employees' self-respect with its old-fashioned communication style. Communicating a need for

measuring employees explicitly says, 'you may not be good enough, I have to check whether you are.' A new version of Taylor's measurement of employees' production within a given time.

Undermining the triangle by using an old empowerment tool

Another way of organizing from the top down at FintechOrg was via the Chilli project in January 2015 along with the new change and innovation initiative. As Tobias explained, Chilli was the code name for an attempt to strengthen employees' self-respect and trust after a larger round of layoffs after the financial crisis. Inspired by Weick, one might see this as an effort to strengthen the trust, honesty and self-respect triangle, as the aim was to empower people to take control over their own tasks and projects. It was an attempt to inspire confidence and show trust: we dare – we can – we will. I have not explored in depth whether it worked, I can only say that I heard differing stories. Tobias, who had been involved in making sense of the first instalment of the project found it a valuable project, contrary to the managers around my table on 1 September 2015: 'Oh no, not again! We don't see that anything has come out of it,' the managers commented, expressing a sense of fatigue with the concept. In the same vein, Anne was not convinced that Chilli worked and said that one might get the impression that the employees would prefer their managers to make the decisions, which implies that the empowering goal had not been achieved.

During my field work my impression of the project was, however, that although the intention was empowerment and reassuring people that they would not be disciplined for trying things that did not work, for failures etc., it was still, also, a reminder that FintechOrg and its members had a recent past when member banks went bankrupt, and employees had to be let go. I would thus say that despite the positive intentions, Chilli acted as the ancient Roman two-faced God Janus, who simultaneously gazes into the past and into the future. While Chilli signalled the intention of building empowerment and the willingness to let people make their own decisions, the name would also continuously remind them why the initiative was launched. Thus, a managerial idea that employees should be empowered through this story from the past pulled into the present could be seen as a persistent, tacit reminder of an unpleasant past and the risk of being laid off. Following this reading, the Chilli project had a counterproductive effect.

Furthermore, if I continue along that avenue, I would suggest that the Chilli concept was an example of an old tool – almost like the mainframe – in terms of telling the story about FintechOrg's identity. Or an example of a too-fixed concept that seemed to be in need of unravelled or improvised into another way of expressing the executive team's intention of empowering people without simultaneously reminding them of the 2000s. Surprisingly, the intended renewal and desire for innovation turned into a confirmation of an old management style (top-down), dictating the new (Hjorth, 2012b) and generally preserving the existing and confirming that things would remain as they have always been.

To conclude, placing the innovation responsibility on the shoulders of one specific person and presenting specific and concrete inventions to decision makers may have increased the rejection rate and decreased innovation results, thus directly undermining the goal of increasing innovation. From that perspective, the old way of organizing innovation at FintechOrg, by continuously building handrails together with the clients and organizing around the new, might produce better results. This is not to say, however, that other initiatives were superfluous in light of the changing business conditions. In other words, while dropping tools helps us to open up to sensing cues in the periphery, strengthening old tools and breaking the trust, honesty and self-respect triangle sends employees a message that the executives know better (managing from the top down).

8.4. Dangerous design

I began the dissertation with the story about the coordinated world time, when representatives from 25 countries in 1884 decided to chop the globe up into 24 zones across countries (Chia, 2003; Kern, 2003) and turned the geographical landscape into a place where time suddenly moved an hour forwards or backwards when people passed a time zone or, taken to the most extreme example: a coherent landscape being artificially divided into two different dates, as for example the Fiji Islands were by the date line. I furthermore considered the establishment of the artificial coordinated world time an invention and, because we still organize our lives around it, an innovation. Although it is, by now, a very old standard, it has gradually developed via

technological inventions, for instance the atomic clock, and turned into a nearly tangible artefact, manifest in language and organizational behaviour at FintechOrg as the 'time strip.'

8.4.1. The time strip – an example of dangerous design

This phenomenon of the coordinated world time's materialized fluidity was perhaps most clearly expressed by Petter's comment about 'stripping employees of time and place,' as if time could be held or worn by anybody and thus be left behind or, the other way around: Sören's desire for 'being careless about time' as a longing for dissolving the time strip or clock time that organizes people's lives, chopping moments into bits and pieces. Following Weick, the reification of the former informal fluid world time into the time strip can be interpreted as an example of the transformation from flux over hunches and bracketed perceptions into the invention of coordinated time – out of fluidity and airy nothing Weick (2011, 2010), over time as a natural flow that exists outside language (Kern, 2003) through the organizing around it (Gartner, 2012, Hjorth, 2012b) turned into an almost physical manifestation as a thing. This 'thing', by now, appears so natural that when employees and managers brought up the challenges about it, everyone seemed to agree that there was no other way to calculate the clients' price for a given project than payment by the hour and hence the need to cut up hours, days, months into smaller segments for the purpose of register time through the time strip. As I see it, rejecting the employees' complaints is to reject cues in the periphery and hence delimit potential improvisation of, for example, FintechOrg's services.

8.4.2. Consequences of dangerous design

Now, a new way of organizing around the manifested time strip was turned into a value with which employees could pay for co-workers' favours related to a specific project or task or to an idea that might be beneficial for FintechOrg and its clients. As Morten mentioned, if employees did not have a time strip to offer as payment, the risk was that they could not get any help. Hence, the old idea of time as a measurement of production, at FintechOrg expressed as the time strip, has now been improvised into a means of exchange of favours as an internal means of payment – the exchange of favours for hours on the time strip. Besides being an example of the employees'

innovative behaviour, a new way of organizing around an old invention, it also marks the risk of a decrease in organizational collaboration.

Apart from challenging employees individually, the time strip was also articulated in the tool-dropping experiment with both the executive team and the middle managers as a barrier to innovation. Additionally, from my point of view, it could also lead creative individuals to leave the organization, because the barriers to creating new solutions were too high. The system also confined the employees, who were not allowed to spend (clock) time outside the time strip: be it on their own or their colleagues' ideas or on calculating a price for a potential new service for a prospective new client. There may further be a risk that the organization's creative potential could dry out if the employees are too confined by the time registration system.

Furthermore, the employee's creativity could also be used in a way that was unfavourable to FintechOrg's clients, because, while the time strip blocked innovation, it simultaneously seemed to stimulate an administrative practice (or, I would say, yet another innovative exploitation of the concept in line with the internal payment of favours) that can be said to undermine the economically beneficial production of services. As mentioned, the time strip could cause work to be blocked, as shown through the oxymoron in Chapter 7. However, that had stimulated some employees to exploit the system to their own advantage. Thus, the system's focus on exploiting employees' time fully had simultaneously led creative employees to generate a stop during production, which in turn resulted in additional hours (in the form of an extended time strip) allocated to the stopped project and, moreover, a better price for the employees, as they were now eligible for overtime. As a result, the production became more expensive for the clients. In my opinion, the story about the time strip at FintechOrg is an example of how 'airy nothing' (Weick, 2011) more than a century has turned into a taken-for-granted concept that controls working life. Overall, there seemed to be many disadvantages of the time strip, which undermined the intended benefits for FintechOrg's members.

The example shows how an invention has transformed into a reified concept; moreover, in accordance of the disruption literature, we should bear in mind that any invention has its golden

age, and sooner or later it will fade away when agents in the market, for a variety of reasons, stop organizing around them – and, I would add, improvise the usage in a way that does not support the original purpose but instead undermines it. Inspired by Hjorth's (2012b) (and Gartner's (2012)) definition of innovation as organization creation, I would suggest that stop organizing around an earlier invention can be seen as organization destruction. This may not necessarily happen overnight but may happen little by little, meaning that old inventions continue to work in parallel with the appearance of the new, be it a new way of using or organizing around former inventions or brand-new inventions, which are successively subject to new ways of organizing.

In my reading of the empirical material, the coordinated standard time born out of airy nothing has developed into the 'dangerous' too-fixed concept (Weick, 2004) of the almost tangible time strip at FintechOrg. Thus, I see a line from the prelude on time and innovation over the empirical material reflecting, among other points, the development of the time strip that now risks hampering work, although it was once a leading principle in the factories. Today, the time strip seems to hamper work, block innovation, be potentially resisted and bypassed by creative employees and apparently turned into a counterproductive device for FintechOrg's clients, who, paradoxically, demand time registration in order to control the employees – a device that was instigated by F. W. Taylor as described by Hjorth (2012b)

 '(…) the manager's agency was constituted by the power to negate disorder, to instigate control, and to say 'yes' to carrying the ever greater load of adjusting to modifications in the environment for the purpose of greater efficiency' (Hjorth, 2012c, p. 169).

In summary, I would say that FintechOrg's traditional way of working in close collaboration with their clients comes close to the behaviour Weick (2004) calls 'improvising', not only in the actions of executives and managers but also in the way employees work with clients. This was now combined with top-down behaviour in the name of innovation, which, however, became a barrier to the new.

8.5. A disruptive event

The process from airy nothing to a too-fixed concept also pertains to the idea of a bank and the values passing through the banking system (money), which themselves hold elements of a too-

fixed concept. During the interviews I asked the 'silly' questions 'what is a bank?' and 'what is money?' This opened the concepts up slightly to let in possible new perceptions of FintechOrg's environmental flux close to what Weick, for instance, describes as the task of a change poet – incorporating the perceptual flux shaping our experience (Weick, 2011). Weick's understanding of creation and change goes back to his constructionist stance, which he expresses rather clearly in his piece about change agents and change poets (2011). To Weick, it is crucial for managers to engage in perpetual change processes, however, not as a formal change programme, such as the innovation programme that was on the agenda at FintechOrg, but as a way of engaging with employees and collaborators on a continuous basis, maybe similar to the CEO's way of working with FintechOrg's bank representatives, guided by getting FintechOrg and clients to 'move as one,' and encouraging people to 'engage in dialogue before there is a language.' A job similar to that of Sisyphus (Weick, 2011).

In the context of my question about the concept of banks and money, which I asked of employees and managers at FintechOrg, it seemed that the executives had not reflected on that specific concept before. In fact, they found the question amusing, even laughable. The employees, on the other hand, unexpectedly answered that 'we don't need banks but banking' – the managing of an infrastructure that circulates a representation of value among people, while banks today, as an obsolete institution for delivering that value-circulating infrastructure, are increasingly falling victim to what could be termed 'functional depletion.' Thus, there seems to be an astonishing gap between employees' and executives' reactions to my questions, which exemplifies that theory can help silenced voices be heard.

8.5.1. Emotional reactions to a question

What struck me especially was two of the executives' smiles and laughter. This response revealed an emotional reaction to the sudden confrontation with something unexpected, as if somebody had asked a question that did not belong to that world, in which banks and money were, obviously, familiar phenomena that were not open to doubt or questions. They seemed to perceive the question as completely unrelated to their own world. No handrails, which might be why they distanced themselves from the question by laughing it off and quickly turning their

attention to something else. A counterpart to that in the literature is Weick's description of how the bank representatives in the VISA case reacted to Dee Hock's (magic) trick[80] with the cuff links: 'You miserable bastard' followed by laughter as a positive cosmology episode.[81] I find this response from FintechOrg's executives similar to that of the bank representatives when they unpacked the cuff links, followed by silence and then outbursts of laughter, as they found themselves entrapped and subsequently surrendered in Hock's new universe – the transnational payment solution. I see it as an unfolding of the three-phase sequence of moments of confusion, collapse of sense-making and cosmology episode that in Weick's perspective leads to the positive cosmology episode. In this case, it only took a few seconds for the bank representatives to accept and surrender to the new situation (experiencing the cosmology episode).

According to Weick (1995), cues in the periphery might impact us and create an unexplainable experience. Moreover, we should welcome these cues instead of ignoring them. They are like the amber traffic light in the green-amber-red sequence – or, following Weick, a warning that 'one's well-being may be at stake' (Weick, 1995a, p. 45), which might be threatened, and that the next step is the red light (the collapse of sense-making) where you cannot move but simply have to wait until the disaster or fundamental change occurs. This is however, what Frank Gehry (2004) mitigates by habituating his clients to the new through Schreck models, time and the liquid state. I return to this concept later.

8.5.2. A collapse of sensemaking

At FintechOrg, the unexpected and subsequent reaction evidently occurred in my interview with Anne, who expressed it clearly by bursting out 'I had not expected that!' (the question about a bank). The process, too, was evident: first my question, 'What is a bank?' Then her reply, 'That's something you trust'. (A spontaneous quick and unreflective answer, ignoring her own uncertainty and presumably unpleasant experience about the question). A few seconds later, her comment, 'Oh boy!' Followed by silence and then reflection: 'It's very funny. Yes, what is a bank? A place where my money is being processed sensibly, confidently … securely! Yes, what do I know

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[80] I will claim that Dee Hock's cuff link move was a magic trick and return to that in the concluding discussion.
[81] As I mentioned, this was only defined as a positive cosmology episode in note 25 (Weick, 2004, p. 52).

what a bank is?' In my interpretation, following Weick, the expression 'Oh boy!' equals a collapse of sense-making, followed by the silence and reflection 'I would not have expected that [Laughing]' – the positive cosmology episode as if she recovered on new ground and said 'Ok, this is actually an interesting and relevant question.'

I will suggest the cue and inexplicable experience in this situation to be something like, 'Why on earth is this lady investigating innovation in my organization asking me what a bank is?' Following Weick's insights into collapse of sensemaking and cosmology episodes as conveyed earlier, in the following I outline a possible scenario that could have made her more resilient: if Anne had wanted to prevent the increased emotional experience expressed through the 'Oh boy' and the laughter, she should have asked me a counter question, like the one above. Not doing that, without moving into or pushing the dialogue forward, she was now left without a language that might have supported her. If she had invited me to contribute to answering the question, I would have been compelled to explain what I meant or what I doubted; in other words, I could have made sense of and created a handrail to her experience. I could have built a bridge between her taken-for-granted position leading over the abyss to her known territory and could have presumably contributed to decreasing her emotional experience. In that case, she would not have felt the collapse of sensemaking, and I would not have heard the 'Oh boy, what do I know what a bank is?'

Also, she could have looked for amber lights, cues in the periphery of her own executive space, the opinion of FintechOrg's employees saying, 'We don't need banks.' She might not have appreciated the statement, because banks were FintechOrg's primary clients and the economic foundation of her business. However, if she had heard such statements from her employees, she would not have had the increased emotional experience – the 'Oh boy' and then the laughter. This furthermore reveals an idea of the role of an executive as the one who carries the full responsibility for a given situation and, consequently, excluding others' knowledge and insights. She took full responsibility for my question about the bank, as if she was the only one to answer that apparently difficult question. She had not needed to do that, though, if in her everyday life

among the employees she had let herself be open to feelings of inexplicable utterances as well as her own impression: 'Their business model doesn't last.'

8.5.3. The effect of arousal

Weick's advice of being aware of the triangle of trust, honesty and self-respect would let collaborators' and employees' feelings be a part of Anne's experience, acknowledged within her own sphere, allowing herself to use democratic knowledge. In Weick's perspective this is also a democratic issue. For example, by referring to Magala, he relates sensemaking with democracy and states:

'Slawomir Magala (1997) argued that my idea of sensemaking was a theoretical equivalent of the political antiauthoritarian movements of protest of the late 1960s and early 1970s. In his words, core ideas about sensemaking "allow for a more egalitarian approach toward organizational processes and for a more democratic review of subjective meanings and intersubjective negotiation procedures than would otherwise be the case" (Magala 1997, p. 333)' (Weick, 2017, pp. 8–9).

If she had had such an egalitarian approach to the employees' opinions, she would not have been surprised by my question.

I would suggest Anne's reaction to be what Weick calls an experience of an 'interruption of flows' (Weick, 1995a, p. 45). As he points out, people are always engaged in projects and ongoing activities, which causes arousal when they are interrupted. 'It is precisely because ongoing flows are subject to interruption that sensemaking is infused with feeling' (Weick, 1995a, p. 45). Referring to Bersheid (1983) and to Mandler (1984, pp. 180–189), Weick argues that 'a necessary condition for emotion is "arousal" or discharge in the autonomic nervous system' (ibid.). Furthermore, arousal having both a physiological and a psychological significance is sparked by the interruption of 'ongoing activity,' 'because it prepares people for fight-or-flight reactions' (ibid.). The psychological reaction to arousal, on the other hand, triggers sensemaking activities, which individuals must pay attention to in order to react to the warning. Paying attention to stimuli, which is what leads to the arousal, is 'to initiate an appropriate reaction' (ibid.). The appropriate reaction in the case of Anne's experience was to continue the dialogue, the interview.

Moreover, as Weick remarks, arousals lag two to three seconds behind, as exemplified above by Anne's immediate reaction and answer to my question followed by 'Oh boy' and silence, then 'Yes, what do I know what a bank is?' Initially, during the first two to three seconds, she thought that she could answer the question straight away. Soon, however, she realized that she could not, probably experienced a kind of entrapment[82] quite similar to the bank representatives' outbursts in the VISA case, then the 'Oh boy, …', followed by laughter. Based on insights from cognition studies, Weick links emotions to sensemaking and concludes that

'emotion is what happens between the time that an organized sequence is interrupted and the time at which the interruption is removed, or a substitute response is found that allows the sequence to be completed. Until either event occurs, autonomic arousal increases' (Weick, 1995a, p. 46).

Differently put, as long as the interruption of the sequence continues, emotions will increase. Here, a substitute response was found in her critique of the banks holding on to their known business model, which allowed the interview to continue.

According to Weick, tight coordination of people makes them more exposed to interruption of sequences and following emotional responses, which in my interview with Anne came to the surface as my apparently provocative question made her laugh and realize that she actually did not know the answer. Unfortunately, this insight of a lack of crucial knowledge soon faded away, unfortunately, because engaging in the surprisingly lack of knowledge about a key topic for her business, facing or freezing and exploring the unpleasant feeling could have made room for renewal. The unpleasant feelings signal something inexplicable, something that is difficult to verbalize, and reveals a knowing body seeking to get into contact with an unknowing, rationally thinking mind. The reason might be the unpleasantness and the need for distancing oneself from the inexplicable emotional experience, corresponding to what Weick describes in his piece about Frank Gehry drawing different models of the Lewis building at Case Western as preparations for the final design of the building: 'Clients are often bewildered and scared by Gehry's models.

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[82] As I remarked by referring to Van Maanen (2011, p. 227) in Chapter 5, I can, of course, not know this. It is nevertheless a part of my reading of our conversation during the interview.

Although clients say they want to think outside the box, they aren't sure what that means' (Weick, 2003a, p. 94). Gehry names his models 'Schreck models' and explains it this way:

'When I make a building, I tell clients at the start that we are going to be in a liquid state for a lot of time. (…) During that liquid period, we make a lot of study models, and some of the models are pretty scary looking. When we show them to a client, they got pretty nervous. We call them Schreck models. It's a Yiddish expression for making people nervous' (Gehry, 2004, p. 20).

The interesting remark here is the expression of the need for the unfamiliar to become familiar. This may be the reason why the tool-dropping experiment was not further implemented. It made no sense, because there was no desire or inclination to question the taken-for-granted and no successive process for habituating the unfamiliar.

The insights from my interview with Anne and her increased emotional experience points to the need for Gehry's initial 'Schreck models' as a way of letting clients get used to potentially increasing emotions when confronted with the new and unknown. This way of working allows Gehry to let in new perceptions gradually while remaining in dialogue and making sense of the new together with the other. This process is also a way to build the aforementioned handrails. Gehry conveys it as follows:

'When I make a building I want it to feel easy on the hand for people. This means we give a lot of attention to all the little details of how the building will feel to them, from door handle to passageways. I think about how to give people a kind of handrail, so that the unfamiliar can become familiar to them' (Gehry, 2004, p. 34)

I interviewed the executives (and the middle managers) before the tool-dropping experiment, where I here asked them about what a bank is. They had thus been exposed to the question before, but nobody suggested that the concept of a bank may potentially be obsolete. In my interview with Anne, she said during her reflection that their [the banks'] business model would not last. Here she actually made a handrail to the new (me questioning the idea of a bank), although she had not coupled it to the status of 'a bank,' which is what provoked her emotional reaction. However, the reflection gave her a handrail, which reduced the arousal and showed her a way to the familiar. If she had listened to that feeling and used it constructively, she would have had the potential to contribute to, push ahead and improvise FintechOrg. Of course, that would

have required shareability constraints, battles etc. (Weick, 2004b) in the group of executives, which might have led to unpleasant and potentially unrecoverable controversies. Entering such a process also depends on the triangle of trust, honesty and self-respect being in place.

8.5.4. Resilience through reduced emotional reactions

From Weick's perspective, if an order is interrupted 'the effort to complete the original interrupted sequence' is redoubled, but if the rebuilding can be done in several different manners, the emotional level will decrease. In this case, the rebuilding was accomplished through the dialogue and the creation of the handrail. Weick suggests that generalists, and people who have the capability to improvise, would 'show less emotional behaviour, and less extreme emotions' (Weick, 1995a) and are hence more capable of resisting potential unexpected events. Also, according to Weick (1995) there seems to be a difference between the emotional intensity depending on orders. The higher order, the more intense emotional reaction to interruption and, vice versa, the lower order the less emotional reaction. This might point to interviewees' different reactions to the perception of what a bank is, and the degree of coordination among the individuals at FintechOrg. The closer to the top level at FintechOrg, the more unquestioned the taken-for-granted concepts of 'time' and 'bank'.

'Negative emotions are likely to occur when an organized behavioural sequence is interrupted unexpectedly and the interruption is interpreted as harmful or detrimental. If there is no means to remove or circumvent the interruption, the negative emotion should become more intense, the longer the interruption lasts' (Weick, 1995a, p. 47).

During my interview with Anne, her emotional level increased when I asked her about 'a bank' and decreased when she found a handrail and a way to respond to the unexpected. If the executives (Anne and Hans) had acted as improvising bricoleurs among their employees, they might have noticed the cues, such as employees saying 'we don't need banks, but the banks need the costumers.' Additionally, if they had been interested in examining that question together with the employees, they would thus have been prepared for my question and potentially able to enter into a dialogue without the emotional reactions, small as well as large. We actually saw such behaviour in the initial scene in the meeting between the executives and the middle managers when some of the participants suddenly raised their voices due to what they saw as an excessive

workload. In this incident, Hans and Anne took a step forward into the assembled group, accepting and embracing the dissatisfaction. Additionally, to my subsequent comment about the dissatisfied individuals Hans replied that 'you need to be able to take it in'. I see this answer as an expression of a trained leaders' almost automatic reaction to a sudden unexpected event (employees' emotional reactions).

Also, to me, the expression 'to be able to take it in' is not a reaction based on thoughts and reflections. Instead, it seems more like what Weick, using Heidegger's term, called a 'ready-to-hand-mode of engagement' (Weick, 1999a). I see this as a holistic embodied reaction of two trained and skilled leaders who are used to being absorbed by the flow in the ready-to-hand-mode of engagement. It is thus also simultaneously a transcendence of the subject-object dichotomy. The degree of unexpectedness can of course be discussed. Trained leaders will expect employees to be unsatisfied now and then; however, the reaction to such incidents will vary, depending on the individual leader. Thus, in my interpretation the example nevertheless represents a trained, holistic, embodied reaction in a ready-to-hand-mode of engagement. This differed from the reaction to my question about the concept of a bank, as mentioned above.

Following Weick, in crisis situations, the ability to reduce emotional reactions will increase resilience, because arousals call attention to the centre of the ongoing projects. In turn this further raises the risk of missing cues in the periphery and thus arguably adds fuel to the emotional fire. In other words, in order for an executive team to handle sudden, unexpected and potentially damaging events it would need to be able to reduce emotional reactions because, as Weick states, (referring to Mandler (1984)

'[u]nder conditions of high arousal occasioned by interruption, attention is deployed toward that which is perceived as psychologically central and away from that which is perceived as peripheral (…)' and this will be problematic 'if cues in the periphery were crucial for the center' (Weick, 1995a, pp. 104–105).

Thus, when we are confronted with unexpected signals from the periphery, arousal intensifies and makes us focus on the centre and thus exclude peripheral cues, which in turn increases the impact of peripheral cues because strong emotions cause them to be ignored.

FintechOrg's executives' emotional level did not increase further because they quickly got the situation under control, the message only had one external, harmless sender (me as researcher), with whom they were in dialogue. Remarkably, the degree of unawareness of these types of cues (the employees' statements about banks) increased the closer people came to the executive level of FintechOrg. Petter, Anne and Hans did not want to take the questions about the notion of a bank further. From my perspective, this is akin to 'active inertia' (Sull, 1999), dominant logic (Bettis & Prahalad, 1995; Prahalad, 2004) and 'dictating the possible' (Hjorth, 2012b) and close to Weick's point in relation to the Mann Gulch crisis.

'Faced with similar conditions [as the group of smokejumpers in the Mann Gulch], organizations that seem much sturdier may also come crashing down (Miller, 1990; Miles and Snow, 1992), much like Icarus who overreached his competence as he flew toward the sun and also perished because of fire' (Weick, 1993, 638).

This is of course simply my reading of the empirical material. I have not carried out an in-depth analysis of the atmosphere and roles in the executive team nor in the management level in general. However, I witnessed this because I was relatively close to Anne, Petter and Hans, who were important decision makers with regard to new initiatives and solutions. For example, I did not interview other managers on Petter's level, because I saw Petter as the most important organizational representative on his level with regard to developing new services.

Of the executives I interviewed, Jan (the chief sales officer) had the most relaxed emotional response to my question about a bank, but he did not have sufficient influence to make it an important theme in the team. This again points to the dynamic in the team, which I am not analysing. I can, however, state that – perhaps, naturally – the most powerful members of the team were the executives in charge of production: Anne, Christopher and Hans. As obvious as this may be, it is nevertheless problematic due to Jan's natural contact to the market (FintechOrg's context and cues in the periphery from where the new occurs). I thus find it is fair to make the above conclusion, that the closer to the top level of the organization, the greater the reluctance to address the taken-for-granted, because the four people did not discuss it or recognize it as important.

Concluding remarks

In the analysis I explored three main themes and two examples of dangerous design through the lens of the multi-diverse theoretical framework, based predominantly on Weick's sensemaking perspectives. I described an organizational tradition that is used to improvising and innovating organically over decades via a close relationship with its clients. I proposed this to be an invisible and partly unnoticed successful innovation tradition. This state of affairs was challenged by the new innovation agenda, because it strengthened an old invisible managerial structure, which had a counterproductive effect. I also suggested that the managerial level consisted of predominantly highly coordinated people who did not sufficiently acknowledge the voices of sceptical employees and instead seemed to cut off cues in the periphery and refrained from exploring the tool-dropping sessions further as an offered research-based management tool for change and innovation processes.

I additionally offered an example of what I, inspired by Weick, termed 'dangerous design' – the time strip – and suggested that as a consequence of holding on to dangerous design, the organization risked being exposed to sudden unexpected and damaging events. Finally, through in-depth analysis of an interview section, I showed how such a damaging event occurred through Weick's three phases of deconstruction (disruption): moments of confusion, collapse of sensemaking and cosmology episodes. This further revealed different levels of emotional reactions, which I related to the resilient organization and concluded that the ability to handle sudden surprises in a 'ready-to-hand mode of engagement' (Weick, 1999a) as an expression of embodied knowledge helps individuals engage in the new and thus promotes resilience. The analysis concludes by summarizing what we can learn from the study about organizing for innovation in the context of a Nordic fintech cooperative. I suggested that the innovation agenda was counterproductive in relation to the desired goal by invisibly suppressing something that had worked well for years, by undermining the ability to detect and create handrails to cues in the periphery and 'transmuting the new into acceptance' (Hjorth, 2012c). I also stated that an innovation focus on what *is* and the understanding of innovation as an invention + a business case may increase the risk of disruptive events.

The analysis thus suggests an answer to the research question: *How can we construct a coherent theoretical framework, drawing on management of innovation, design, and organization studies, that enhances our understanding of organizing for innovation?* While the sub-question was proposed in the concluding discussion in Part 2, I will here focus on an answer to the main question in the following.

Observing the process of reorganizing for innovation at FintechOrg during my fieldwork through the lens of the theoretical framework and the analysis, I will argue that the organizing efforts aimed at creating an innovative organization were counterproductive. First, they further entrenched an organizational structure based on old managerial tools, including managing from the top down. The highly coordinated character of the managerial level and the executive team, combined with a subscription to the subject-object dichotomy, further contributed to an understanding of innovation as stable specific products and services produced by specific individuals, based on an understanding of innovation as invention + business case. This also undermined the organization's established and partly unnoticed successful innovation tradition of improvising to create the new, just as it seemed to undermine the potential presence of invisible organizational innovativeness, such as the ability to detect and build handrails to cues in the periphery and thus 'transmuting the new into acceptance' (Hjorth, 2012c).

In contrast to the invisible innovativeness, the focus on what *is* and the understanding of innovation as an invention + a business case may increase the risk of disruptive events. The reason is that if the business case is evaluated negatively, it will block further organizing activities and thus also innovation.

In contrast to this I identified a relatively old effective process of organizing around an idea in the shadow of the taken-for-granted (the time strip) exploiting the old invention of coordinated standard time. This successful process stood in contrast to the innovation agenda initiated by the executives, which had a counterproductive effect by invisibly suppressing something that had worked well for years.

Concluding remarks to Part 3

Pursuing an answer to my initially posed question – How can we understand practices of organizing for innovation in a Nordic fintech cooperative framed by a coherent theoretical framework? – I chose to approach to the field inductively, using ethnographically inspired methods. Another aspect of my methodology was a process approach to generating empirical material, which involved letting myself as a researcher be absorbed by the process, specifically in connection with the tool-dropping experiments. These, I found, held interesting empirical material to be explored and caused me to redirect my research focus from design thinking in the management discourse to tool-dropping as a means of organizing for innovation.

The empirical material in Chapter 7 was framed by the lens of the multi-diverse theoretical framework, the research question and my methods for generating the material for the inquiry. The chapter opened with a section about the conditions for leading FintechOrg and proceeded to a discussion of the innovation agenda and the related initiatives aimed at organizing for innovation. Finally, the chapter offered insights into two themes that stood out in particular: 'time', which emerged as a theme as a consequence of employees' outspoken issues with the time strip, and the theme of 'the bank', which emerged naturally from my semi-structured interviews in which the question about what constitutes a bank came up repeatedly.

The empirical material was further analysed in Chapter 8, using the central concepts of the developed theoretical framework primarily based on Weick's writings: handrail-building processes, cutting off cues in the periphery and reluctance to drop tools. These concepts are based on observations of FintechOrg's practice of collective, improvisational, innovation and incremental development of services in close collaboration with clients. What I found in answer to my research question, and as a result of innovation being put on the agenda at FintechOrg, was, paradoxically, a counterproductive reduction of the innovation efforts that undermined the innovativeness of the organization. Meanwhile, an innovation that had developed in the shadow of the taken-for-granted century-old innovation of coordinated standard time, UTC, continued its life unnoticed and might also work counter to the organization's primary goal of making a positive contribution to the clients' revenue.

Part 4. Concluding discussion, learnings and further research

Introduction to Part 4

Part 4 is the final part of the dissertation. It comprises the last two chapters: first, the discussion of the results of my analysis, and second, the conclusion. Chapter 9 discusses the construction of the new theoretical concept of 'artful change agency', based on the analysis and the multi-diverse theoretical framework. Next, its relationship to the managerial aspects of innovation and design is discussed, while the chapter concludes by returning to the concept of coordinated world time (UTC) and discusses how we should understand it in light of the study. Chapter 10 wraps up the study and specifies the contributions it makes to research and practice. Chapter 10 furthermore suggests a number of avenues for further research.

Chapter 9. The concept of Artful Change Agency

The aim of this chapter is to discuss my results of the study and their contributions to the theories on the managerial aspects of innovation and the managerial aspects of design. Based on the theoretical perspectives and my discussion of the theories, I have constructed a multi-diverse theoretical framework which covers occasionally conflicting theoretical perspectives and ontologies. In the Concluding Discussion of Part 2, I identified common denominators between the three research fields – the managerial aspects of innovation, design and OMS – all of which support the notion that innovation is imperative in light of today's global competition. Another theme is the subject-object dichotomy, whether the respective research fields subscribe to it or not. This furthermore impacts the literature's perspectives on the concepts of 'design', 'innovation', 'organization' and 'disruption', which vary depending on the literature's perspective on the subject-object dichotomy. As discussed in the Concluding Discussion of Part 2, Weick stands out among OMS scholars, because his work has a connective capacity, which enables the formation of common ground among the theoretical perspectives.

Based on the results of the analysis and the literature on innovation, disruption, design, organizational entrepreneurship, OMS and, predominantly Weick's work, I have developed a theoretical construct as an alternative to design thinking in the management discourse. I will argue that this was needed, because design thinking in the management discourse as a concept could not stand up to inquiry, neither theoretically nor empirically. In the Concluding Discussion of Part 2 I pointed to the concept's weakness both with regard to paradigmatic consistency, despite what I found to be an unacknowledged allusion to the attempt to connect ontologies, and with regard to critical design researchers' claim that it reduces design practice. I concluded that the latter furthermore questions the relevance of using a concept that refers to a certain practice, which it simultaneously reduces. Further, since the idea of holding design thinking workshops with the executives was unsuccessful in practice, I find it reasonable to explore whether a more suitable concept can be developed. Putting innovation on the organizational agenda was counterproductive in relation to the original goal. Instead, an invisible innovative organizational tradition had been at play for years; not as innovation understood as singling out specific services to be rewarded or heroes to celebrate but as small, gradual improvements. However, nobody

knew exactly who were behind, for example, the invention of the platform. It had simply emerged, it seemed. I will suggest to name the behaviour of the ongoing collective reorganizing process 'artful change agency'.

9.1. Artful change agency

Artful change agency is a concept that in a broad sense embraces the activities of tearing down the taken-for-granted and rebuilding it in a slightly different form. It describes the necessity of both seeking to dissolve old and dangerous designs and simultaneously reaching out to cues in the periphery by building handrails from the cues to organizational members and thus facilitating the continuous sensemaking process. Artful change agency also embraces the subject-object dichotomy position and the OMS perspective on organizational life, which design thinking (in the management discourse) only indirectly alludes to, and which are blocked by the ontology of scientific management, as discussed in the Concluding Discussion of Part 2. Further, this new concept includes the concept of embodied knowledge, which critical design researchers (Amacker, 2017; Hjelm, 2005; Jahnke, 2013; Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013) claim to be an overlooked quality of design practice.

In the following I will first offer a detailed discussion of the concept of artful change agency. Here I (1.1) take my point of departure in a theoretical discussion about the rationale behind the construct of 'artful change agency' as an alternative to that of design thinking (in the management discourse)[83] and as a driver of organizational change and innovation. (1.2) I then proceed to tool-dropping as a progressive *de*constructive capability and its relation to embodied knowledge; (1.3) to handrail-building as a *re*constructive capability and its relation to embodied knowledge; and (1.4.) the ability to transform cues in the periphery to too-fixed artefacts and ideas of the world and (1.5.) how detecting cues impacts the body.

Further, as the phenomena of emotions, feelings and arousal are coupled with embodied knowledge together with the three characteristics of tool-dropping, handrail-building and cues in

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[83] The brackets mean that I refer to design thinking both as a general concept, which is criticized by design researchers, and as a concept in the management discourse.

the periphery, I will in the following discuss those embodied qualities in a more general sense. After the summary of the theoretical considerations, I then discuss the relationship between too-highly-coordinated people and artful change agency, and, third, return to the managerial aspects of innovation and design in a theoretical discussion of artful change agency in relation to the two research fields. Finally, in the fourth section, I return to the prelude and UTC (The Coordinated Universal Time) and explore a perception of time in light of the discussion of the literature and artful change agency.

9.1.1. Theoretical considerations

There are several reasons for exploring possible alternatives to the concept of design thinking in the management discourse. As discussed in Part 2, contrary to the Pragmatists' points about 'flow' and 'pure duration', which both the design literature and Weick refer to, the concept of design confirms Weick's point about the risk of reifying concepts and labels into dangerous design, which, as I see it, makes the concept an expression of the subject-object dichotomy, rationality and modernity. This points to a need for renaming the *activities* described by the concept, such as, embodied knowledge, non-hierarchical relations, ability to question basic assumptions and so forth, in order to apply a term that better suits those activities. In continuation of that, it does not make sense to speak of design thinking as a driver of innovation in the context of process theory, such as, for example, Weick's approach to the organization. Then, critiquing Weick's use of the noun 'designer' as well as the processual version 'designing', I suggest to revise the concept of 'the designer', and inspired by Weick's other creative change figures, the change agent, the change poet, (Weick, 2010, 2011), the jazz musician and the bricoleur[84] (Weick, 1998, 2001, 2004b), I propose that viewing artful change agency as a deconstructing-reconstructing agency makes better sense.

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[84] In note 4, 2004b, p. 49 Weick quotes the French philosopher Jacques Derida (1930–2004) 'paraphrasing Claude Levi-Strauss's idea about the bricoleur.' In other words, in Weick's understanding the designer is also a bricoleur, a 'jack-of-all-trades or someone who is a professional do-it-your-self' (Weick, 2004b). He or she works in a contrary fashion to the engineers, 'who take on only those projects for which they have the necessary raw materials and resources, whereas bricoleurs do not similarly restrict themselves' (ibid.).

Another critique of Weick that I will address in this connection is his reference to 'figures' rather than 'agency'. Since throughout his work he highlights the democratic aspect of sensemaking efforts, for instance articulated in the trust, honesty and self-respect triangle, I find his decision to represent these capabilities in a single visible figure to be a mistake. Clearly deindividualizing the change figure would be more aligned with his democratic view of organizational life. Preserving the Weickian image of a figure who is singled out makes such a figure easier to resist – as happened with the appointment of an innovation manager at FintechOrg.

The years-long invisible innovation process manifested in the gradual improvement of services, which was undermined by the innovation agenda and its implied understanding of innovation in extension of the subject-object dichotomy, seemed to be more successful than the new approach to innovation, which was driven by subject-object dichotomy: There were no celebrated heroes but a collaborative force of change. Furthermore, the CEO's encouragement to 'engage in dialogue before there is a language' is simultaneously an implicit rejection of and an (unnoticed) invitation to transcend the subject-object dichotomy.

The term *artful* in *artful change agency* is used in part because it refers to preindustrial artisanal approaches and to art academies (Austin & Devin, 2003; Heskett, 2002; Shiner, 2001), in part because the word 'art' is highlighted by Dewey as a general human competence to which everybody has access, not only professional designers. The meaning of the word is, furthermore, ambiguous. Artful contains meanings of 'cunning', 'crafty', 'sneaky' and so forth. I find it necessary to operate with an ambiguous term, because the result of this agency depends on the perspectives of the involved individuals, as we saw in the analysis of Weick's anecdote about Dee Hock's 'decisive grounding' (Weick, 2004b), and in the employees' innovation effort, exploiting the time strip for their own personal purposes in the shadow of the taken-for-granted invention of the UTC. This leads to my suggestion of comparing artful change agency with the Pied Piper from Hamelin understood in relation to this figure's ability to transform people's thinking and approach to their own situation, causing them to abandon their own will and willingly enter into the process of change.

9.1.2. Tool-dropping and embodied knowledge

The tool-dropping capability is also a characteristic of artful change agency. Let us briefly recapitulate how Weick describes tool-dropping:

'Learning to drop one's tools to gain lightness, agility, and wisdom tends to be forgotten in an era where leaders and followers alike are preoccupied with knowledge management, acquisitions, and acquisitiveness. Nevertheless, human potential is realized as much by what we drop, as what we acquire.' (Weick, 2007, p. 6)

In the above quote Weick explains how he understands tool-dropping as beneficial. I take my point of departure in this understanding of the concept and in my argument that the tool-dropping capability is connected to embodied knowledge. In Chapter 6 I reviewed Weick's points about tool-dropping in relation to the tool-dropping experiments in my fieldwork. Here it appeared that tools materialize in many forms, including concrete physical tools, such as firefighting equipment, as well as taken-for-granted ideas about the world. Weick returns to the ability to drop tools in several of his texts (Weick, 1993b, 1996, 2007), including in his Mann Gulch piece, where he was surprised to find that even when facing a life-threatening situation the firefighters were unable to drop their tools, even though that would, from a rational point of view, have increased their speed of escape:

'It may seem odd to think that people keep their tools because they don't know how to drop them. However, it is perhaps oddest of all to imagine that the firefighters didn't drop their tools because they didn't think of their tools as separate from themselves. But that's what I think happened.' (Weick, 2007, p. 8)

What is interesting here is that Weick argues that firefighters see themselves and their tools as *one* unit and hence treat their tools a part of their identity. Additionally, I would argue, their bodies also *intuitively* reject the subject-object dichotomy in the process of escaping, albeit, in my opinion, in a non-reflexive way, since they are not aware of their relationship with their body. In continuation of his allusions to embodied knowledge Weick continues:

'The fusion of tools with identities means that, under conditions of threat, it makes no more sense to drop one's tools than it does to drop one's pride or one's sense of self. Tools and identities form a unity without seams or separable elements.' (ibid.)

In his reflections Weick refers to Norman Maclean (1992), who associates firefighting equipment with a firefighter's identity. According to him, the firefighters would not know who they were, 'not even what gender' (Weick, 2007, p. 8), if they dropped their tools and ran for their lives.

In a positive version, this situation is quite similar to that of Hans and Anne in the opening scene at FintechOrg, albeit, of course, without the tragic and disastrous consequences of the Mann Gulch incident. As I described the scene, the meeting with the middle managers suddenly demonstrated their dissatisfied mood. However, when Hans and Anne in response took a step into the assembled group they spontaneously embraced the emotional response to their presentations without time out for reflecting and 'thinking'. I would characterize this as what Weick calls a ready-to-hand mode of engagement (Weick, 1999a) as Hans and Anne faced an unready-to-hand situation. As the analysis showed I found this to be an example of both embodied knowledge about how to handle a situation involving frustrated employees in a group, which I referred to as an outcome of leadership training, and as a situation in which they dropped (or had dropped) old managerial tools, such as managing from the top down. They did not need to pull back, they did not (apparently) feel any anxiety due to – again, in my analysis – their many years of practice, which over time served to reduce their emotional reactions to such a situation and thus enabled them to carry on with the meeting in a ready-to-hand mode of engagement.

Furthermore, with regard to tool-dropping, Weick almost seems to answer his readers' implicit question about what is left when tools become dropped:

'It may seem that with all this talk of dropping one's tools, there is nothing left. That is decidedly not true. Consider the tools of traditional logic and rationality. Those tools presume that the world is stable, knowable, and predictable. To set aside those tools is not to give up on finding a workable way to keep moving. It is only to give up one means of direction finding that is ill-suited to the unstable, the unknowable, and the unpredictable. To drop the tools of rationality is to gain access to lightness in the form of intuitions, feelings, stories, improvisation, experience, imagination, active listening, awareness in the moment, novel words, and empathy. All of these nonlogical activities enable people to solve problems and enact their potential.' (ibid., p. 15)

The quote may be read as encouragement to deconstruct the known and let ourselves be embedded in intuitions, feelings etc. Stressful phenomena, such as intuitions, feelings, experiences and awareness in the moment, also underscore that tool-dropping is associated with

the body, because intuition and feelings have embodied qualities and mark the unity of mind and body. Moreover, in order to be able to drop tools, which in Weick's optic will help us develop resilience and avoid crises, we can follow his five points of advice: containing failure, simplification, operations, resilience and expertise:

'1. see where your model didn't work. You need to spot indicators that signal the unexpected (failure).

2. need to strip away labels that conceal differences among details (simplification).

3. focus on what is happening here and now (operations).

4. see new uses for old resources through improvising and making do (resilience).

5. discover people who understand a situation better than you do and defer to them (expertise).' (Weick, 2007, pp. 14–15)

To conclude, all five pieces of advice may be seen as advice to drop something: drop your old 'model', drop 'labels that conceal differences …', drop strategy and goals related to the future, drop old uses of 'resources through improvising', and, finally, drop any notion that you are the one who knows best. What I also take from the above is that the ability to drop tools is related to embodied knowledge about living in an unstable world and the ability to let go of the past, regardless of the feelings associated with it.

Coerced into dropping tools

Changing the organization through improvisation is not always sufficient if we consider Weick's encouragement to 'cut through labels and reifications' (Weick, 2004b) and to drop tools (Weick, 1996, 2007). In the VISA case, Hock accomplished both a radical and a cunning process, which led to the realization of the new payment solution. The long process leading up to the point when Hock realized that they could not accomplish the process he had envisioned looks similar to Gehry's process with the Lewis building at Case Western. However, the final act of cutting through reified labels and concepts is a dramatic and, presumably, rare achievement, especially considering the organizational setup with independent and international bank representatives.

One might imagine any number of practical barriers that might have thwarted Hock's efforts – renewed battles and negotiations, anger and further rejection and so forth. In a way, the story is told as if it was Hock himself boasting of his achievements, an idealized rendition of a hard deconstruction of the bank representatives' normal world. Gehry's and Hock's processes lead me to consider that we find two types of passive tool-dropping: the *soft and artful improvisational* style, exemplified by Gehry in the process of designing the Lewis building, and a *sudden cutting* style, exemplified by Hock in the VISA case. With regard to the former type, the involved individuals are drawn closer and closer towards the intended end result, losing sight of any exit opportunities. It is a *soft* style because the change in the clients' perspective on the future building occurs over a long period of time. It is *crafty* because Gehry deliberately uses the long period in order to habituate his clients, in part by means of his 'Schreck models'. It could also be interpreted as a similar approach to the Pied Piper from Hamelin and as the 'art of the weak transmuting the new into acceptance' (Hjorth, 2012c).

The second type, the cutting style where the outcome is accomplished within a very short time and releases a shock among the involved individuals, is quite similar to Gehry's; however, in this case the negotiations end with a final cut. In both cases we may speak about habituating an audience to the unfamiliar. (I have only found this situation depicted in a positive light once in Weick's work – in the Dee Hock/VISA case – and in a note, where it is described as a positive 'cosmology episode' (Weick, 2004b, p. 52)). The outcome in both cases, as Weick sees it, is positive, as both cases are represented as having a happy ending. Dee Hock had his VISA Card vision realized, while Frank Gehry realized the university's new building. From this perspective, the two cases show that creating the new, around which people have begun to organize, the VISA card and the new building, are articulated by Weick as examples of positive innovation. This also exemplifies versions of artful change agency via cunning processes aimed at making people follow the leader's will.

In these examples, people are coerced into dropping their conceptions of their world over a longer period of time. Time matters in terms of habituating collaborators. However, the notion of time here is not coordinated unified time but perceived time. As in the interview with Anne about

the meaning of the concept of a bank, the experience of a cosmology episode occurred very quickly due to her surprise, while Hock's two year-long habituation process would not have succeeded without the final cut. In the interview, however, it happened quickly due to the unexpected character of the question, which further sparked the emotional reaction that coerced her into temporarily dropping her habitual understanding of FintechOrg's clients. My point here is that an unexpected question can stimulate emotional reactions, which to me seems to strengthen the understanding of tool-dropping as being embodied. Related to the artful change agency, people's tool-dropping capability makes it possible to coerce them into dropping their tools, including their ideas about their familiar world, and often without their awareness. In the analysis of the empirical material, I stated that FintechOrg had managed to transmute the new into acceptance (Hjorth, 2012c) over a period of many years. This can be translated into Hans's mantra of the need to 'engage in the dialogue before there is a language' as an image of a transmuting collaboration, in which, from Austin and Devin's (2004) perspective, collaborators make use of each other's mental material for their own performances.

Artful change agency is value-free

From my point of view, however, Weick's stories, which I read as revolving around change and innovation, seem to be about morality and responsibility. When the path to the outcome is based on cunning and magic tricks, and the leader relies on his or her own intuition and desire in an effort to convince others to follow along, responsibility and a certain moral habitus are crucial. Otherwise, change and innovation turn into demagogy. Weick does show an awareness of that in another text on Gehry's work: 'To see oneself as a designer is to be more aware of agency and of enacting the situations within which others must live, which means design is as much a moral problem as it is a problem of efficiency and aesthetics' (Weick, 2003a, p. 94). This underscores that the valuation of change depends on the perspectives of the involved individuals. In the VISA case, the perspectives of the involved individuals determine whether the outcome is considered positive and beneficial. I can only guess, but some of the bank representatives in the VISA case might have felt entrapped and coerced and may thus have had a negative experience. In this case, Weick's perspective deviates from his usual position, where his empathy with those who are

exposed to a collapse of sensemaking and cosmology episodes dominates, and it is thus more obvious to take a positive stance focusing on the possibility to recover.

Furthermore, I would suggest that in order to succeed with the magic trick, Hock offered a handrail the participants had not foreseen or prepared for. Along the more than two-year-long process, he had tried to build such a handrail together with the bank representatives. When that failed, he secretly made up a new one, which he suddenly offered. In this situation, the others were coerced into making sense anew in order to overcome a sudden chaos brought about by a sudden and unexpected situation, which engendered a strong emotional expression. The sense they made together came to be viewed as positive, which leads me to view the point about the experience of a cosmology episode as a matter of the involved individuals' perspective, although it also worked as a disruption and as a deconstruction of their present situation or world and thus as a coerced tool-dropping process with the purpose of bending them to Hoch's will.[85]

Deconstructing – reconstructing

Aside from the positive or negative cosmology episode, it can be tempting to understand Weick's work in a context of deconstruction,[86] because he wants us to *undo* our normal understanding of concepts, as revealed, for instance, in the quote below:

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[85] I learned that viewing cosmology episode as a matter of perspective is a contribution to sensemaking and resilience. On 13 April 2018 I received an e-mail from James Douglas Orton, Weick's co-author on 'Loosely Coupled Systems: A Reconceptualization' (Orton & Weick, 1990), who had found a preliminary version of my literature review of Weick's managing as designing, in which I point to the significance of Weick's concept of the 'cosmology episode'. Orton requests permission to quote my understanding of the concept of cosmology episode as something that may also be positive. The first part of the e-mail reads: 'Dear Colleague, Dr. Kari O'Grady and I are completing a book on cosmology episodes, and we had the great pleasure this morning to read your online paper titled, "Design, Thrownness and the Call for Innovation". We have arrived at many of the same conclusions that you have arrived at, and would very much like to include a reference to your paper in our future publications. (...).'

[86] Referring to the French philosophers Jean Francois Lyotard (1924–1998) and Jaques Derrida, Langenberg and Wesseling (2016) read Weick's text in light of postmodernism and deconstruction. They argue that 'Weick's radical choice for understanding the organisation as dynamic and without ground, shows parallels with post-modern thinking (...). Paradoxically, in his description of an organisation as a de-sign "continuously re-constructed" we sense affinity with the post-modern concept of deconstruction, first described by the French philosopher Jacques Derrida' (ibid., p. 225). Although I find that Langenberg and Wesseling clarify Weick's idea of moving back to stimuli in order to renew our understanding of the world as a deconstructive move. I do, however, disagree with their analysis and their emphasis on the language issue, talking about de-sign, because they presume that Weick uses the word 'sign' in the usual sense of the word: '[T]he referential character' – a character, which refers to something else, or to nothing than 'its own construction.' I find this a misinterpretation, since Weick underscores that what happens during

'[D]esigning as a deliberate effort to question reifications, a deliberate effort to restore unnamed zones of focus and a deliberate effort to invite redifferentiation. I labelled this reverse progression as "decisive grounding" for a good reason. To ground anything is to cut through accumulated labels, and schemas, and stereotypes, and to move back toward original, natural, coherent wholes.' (Weick, 2004b, p. 46)

Weick's use of the term 'designing' is, to me, a synonym for tool-dropping and should be understood as the ability to question these reifications *deliberately*, to cut through those labels and move back, creating a kind of individual mental space in which the back-and-forth movements can take place. Ideally, it should be possible to return to the world outside the fixed construction of concepts, labels and reifications and, in an ongoing oscillating process, return to what he calls 'zones, forms, conceptions, and relations' to acquire new perceptions through environmental stimuli and involve them in new processes again and again. (In this connection we should remember that reifications are the small portions of 'reality' that have been bracketed out and undergone the compounding process of Robert Irwin's six stages (perception, conception, form, formful, formal and formalized) to be turned into concepts, labels and reifications and thus transformed into 'dangerous' design (2004b).)

The ability to engage in the oscillating move between deconstruction and reconstruction is also referred to as the work of Sisyphus. Referring to MacIntyre, Weick compares the work of a change poet with that of the Greek mythical character Sisyphus:

'Change poets are a little like 'Sisyphus, who was doomed eternally to roll up a hill a vast stone that would always fall back just as he was about to reach the top. The dignity of life derives from mankind's continual perseverance in projects for which the universe affords no such foothold or encouragement (MacIntyre, 1967, p. 150).' (Weick, 2011, p. 18)

The ongoing process turns into a labour of Sisyphus, who puts all his effort into rolling the stone uphill, only to have it roll downhill again – the top and the bottom of the hill constituting the image of a space between labels and stimuli. The downhill process appears easy. It is effortless

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the reification process is a *collapse* of 'symbol' and 'sign', while the latter (sign) refers to 'details,' 'stimuli' and 'perceptions.'

and turns into the taken-for-granted, while the hard uphill push requires the work of the abovementioned artful change agency. Weick's work is viewed as offering a process perspective on organization, preoccupied with moving on, and hence focused on what is to come. However, the encouragement to question labels, to roll the stone uphill, looks like a deconstruction effort, requiring the skill to cut through labels, which turns the focus in a new direction aimed at developing a renewed understanding of the world.

9.1.3. Handrails and emotions

Handrail is a metaphor for connections to distant parts, a metaphor that Weick borrows from Frank Gehry's natural architectural language about physical components. In Weick's understanding, handrails are a crucial element of the sensemaking process. If they are connected too closely with the familiar, we may not even know that something is new. If, on the other hand, the distance between the new and the familiar is too long from the perspective of the given audience, the handrail may be too short. Depending on their 'length' and the perspective, handrails facilitate stronger or weaker emotions and feelings. Gehry, for instance, talks about strong feelings being stimulated by the unfamiliar when he mentions 'the magic' in the description of his own house, as quoted by Weick (2004b). This exemplifies how feelings, emotions and embodied knowledge affect our experience of the new. In my view, the magic of the experience depends on the quality of the handrails, the individual experience of the sensemaking process and the time it takes to accomplish it. 'You were never sure whether I meant it or not. It looked in process. There was something magic about the house. And I knew that the thing a lot of people hated or laughed at was the magic' (1999, p. 57) (Weick, 2004b, p. 46).

Following Weick's description of arousal and emotions (Weick, 1995), Gehry's points about 'hate or laughter' in my assessment show different degrees of arousal. However, I would add that this depends on Gehry's guests' perspective on the felt experience. Gehry investigated how much of the old house he could remove before he could no longer see 'a house'. One visitor, for instance, had asked him whether the 'peeling paint was intentional.' He commented that '[t]hat's what was strong about it.' I take this to illustrate that if people feel unwillingly entrapped, they will express hate or some other, negative emotion. However, if they receive or catch some sort of handrail,

the experience may turn into a positive one because they are now able to lean on something familiar. That is what happened with the aggression in the Dee Hock case, as 'you miserable bastard' turned into an 'eruption' of 'laughter'. The involved persons suddenly and surprisingly found a handrail. Based on this, I suggest that what I call Hock's magic cut could be realized by the new, secret handrails (the cufflinks) he had prepared and suddenly offered the bank representatives. In the interview with Anne, her laughter too expressed an emotional reaction, which in turn was reduced when she got a handrail, as I describe in the analysis.

When we do not know what to say in an unpleasant, unexpected and suddenly unexplainable situation, only the body can blow the whistle. This, as I see it, releases the emotional eruption. And whether we like the experience or not, our reaction is revealed by the utterance – laughter if we are surprised but feel secure or an angry outburst if we are both surprised and insecure. 'It is about heart as much as head' (ibid., 39), as Weick puts it, again alluding to the body, represented by 'the heart'. The eruption occurs because we experience arousal when we feel entrapped.

In Chapter 6 I also discussed embodied knowledge, albeit in the context of research and methodology, reviewing some of John Law's (2004) points about how to approach knowledge (with regard to research). However, a similar point could be made in a managerial context, where there are similar needs to gain knowledge about the surroundings, 'the ephemeral and elusive reality': 'Through 'hungers, tastes, discomforts, pains of our bodies. There would be forms of knowing as *embodiment, knowing as situated inquiry*' (Law, 2004, p. 2) (my italics). This, as I see it, echoes Weick's thoughts.[87] To Weick, it is only when we are the 'present-to-hand mode of engagement' that what we observe becomes general and abstract and turns into independent tools and artefacts. Then these artefacts become 'context-free', as he puts it, contrary to what James regards as 'pure duration', which in Weick's understanding stimulates our senses (Weick, 1995a). In the 'present-to-hand mode of engagement' we exclude stimuli and thus distance ourselves from something that is emotionally unsettling due to its degree of unfamiliarity. This

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[87] As mentioned earlier, Weick borrows these expressions about the modes of engagement from Heidegger. I nevertheless refer to Weick, since it is his work I predominantly have used for the analysis.

(the present-to-hand mode of engagement) can also be understood as what John Law refers to as stimuli being 'distorted into clarity' (2004).

As described in the methods chapter, Weick (2002), drawing on Kierkegaard and Heidegger, writes about the difference between the 'ready-to-hand mode of engagement' and the 'unready-to-hand mode of engagement' with regard to research methodology. Related to tool-dropping and embodiment with regard to the executives' ability to act adequately in unexpected situations, acting in a 'ready-to-hand mode of engagement', which suddenly becomes interrupted, will put the individual into an 'unready-to-hand mode of engagement.' What from Weick's perspective is needed is to get back to the 'ready-to-hand mode of engagement' in order to be 'aware of the world holistically' and to handle the difficult situation that created the unready-to-hand mode of engagement (Weick, 1999a). This is, in my point of view, about being able to use the body as a 'stand-in' for the unknowing mind (here expressed in our modest language, which only offers the dualistic expression of the relationship between body and mind) and thus still be able to remain in the insecure situation. Here we are reaching out for cues in the periphery and creating handrails to the new and thus making sense of the new together with other people while letting the body do the knowing until the situation becomes 'knowable' (to use Weick's and Sutcliffe's (2015) expression) to the mind. The only way to treat the unknown as knowable is to feel confidence in or learn to let the body lead and acquire knowledge about the new.

From my perspective, the tool-dropping capability needs to be trained and turned into embodied knowledge, because it is unlikely there will be time to explore problems in a 'present-to-hand mode of engagement' if sudden and unexpected events occur. To step out and reflect rationally in a 'present-to-hand mode of engagement' in such a situation is not realistic; rather, a holistic, embodied 'ready-to-hand mode of engagement' is required, as we saw in the scene with Hans and Anne in FintechOrg. Weick reminds us about this in the following discussion of the situation of a chairperson and an incident commander at the scene of a disaster and their ability to reflect:[88]

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[88] Although I have distanced myself from Weick's use of Heidegger's concept of thrownness, I still think that his *description* of the challenge of reflection opportunities is relevant in regard to the difference between the two modes of engagement.

'Two examples are the plight of a chairperson at a contentious meeting and a plight of the incident commander at the scene of a disaster. At a contentious meeting, such as trying to decide whether to adopt a new computer system, the chair person is thrown into the midst of a garbage can organizing process of ongoing agendas seeking support and animosities looking for an airing, without much control or sense of history and with little opportunity for detached contemplation or any assurance that detachment would help anyway.' (Weick, 2004a, p. 75)

The difference between the 'present-to-hand mode of engagement' and the 'ready-to-hand mode of engagement' is that while the former constitutes the 'stance of the spectator', the latter describes a mode of engagement, which is acting holistically in the world in an *embodied manner*. Additionally, I will suggest this as embodied knowledge of tool-dropping and, consequently, an acquired ability to act in a 'ready-to-hand mode of engagement.' Furthermore, while the spectator finds herself or himself at a distance from reality, the change agent is embedded in reality (Weick, 1999), which in my assessment is to say that the body plays a significant role in the 'ready-to-hand mode of engagement'.

Furthermore, training in tool-dropping prepares the individual emotionally to embrace the new, as demonstrated by Gehry's case. My claim is that via his Schreck models Gehry gradually teaches his clients to mitigate arousals and strong emotions when confronted by the unknown, which makes it possible for them to adapt to the new and literally buy his ideas and services. This also means that through the habituation the Schreck models contribute to handrail-building processes.

Before artful change agency can realize a bricolage, there is a need to drop ideas about the concrete tool before it is brought into the bricolage, giving the tool a new meaning. Again, this means that artful change agency is an acquired ability to face and experience emotions associated with tool-dropping and handrail-building, just as Gehry gradually trains and habituates his clients. Thus, cues in the periphery may be perceived by a trained and experienced tool-dropper without stimulating arousals and strong emotions, as the ability to allow ourselves to feel prepares us for facing the unexpected. When we become accustomed to feeling the impact of the unfamiliar, we can react to it at an early stage, smoothly and in a 'ready-to-hand mode of engagement'. This is

important, because, as Weick points out, our early reaction to peripheral cues gives us an advantage, which he describes in the following:

'Using the example of what keeps firefighters from dropping their tools, one can discuss the advantages and difficulties of dropping. There is the small advantage that is amplified when you drop early, the need to avoid the inference that dropping equates to failure, the importance of maintaining self-respect in face of others who may be acting differently and keeping their tools, and finally, the understanding to accept that impermanence is normal and that clinging produces vulnerability.' (Weick, 2007, p. 10)

Facing, feeling and experiencing unfamiliar cues in the periphery is to move deliberately towards a dissolution of the familiar. If we imagine the idea of a mental space that Weick has established between the perception of the known and the unknown, we find a process between those positions (known/unknown) which runs from 'moments of confusion' over 'collapse of sensemaking' to 'cosmology episode'. In this context, I will propose that being attentive to cues means moving deliberately towards a deconstructive 'collapse of sensemaking' before returning to the familiar, having reconstructed it with new pieces of flux infused into the known concepts and so forth, whereby the known becomes renewed.[89]

The gap between the 'ready-to-hand' and the 'unready-to-hand' modes of engagement emerges when ongoing projects are disrupted (Weick, 1999a). This in turn calls for a bodily reaction, in my opinion, because in that situation we have no words. When we let go, or are coerced into letting go, of the 'present-to-hand mode of engagement', the body has to fill the gap between the familiar and the unfamiliar automatically. In this situation, being comfortable enough to allow the body to act, to be absorbed by the process, helps us to mitigate strong emotions, the unknown and unexplainable. The body is thus able to lead us when the situation, the 'ready-to-hand mode of engagement', is disrupted and turns into an 'unready-to-hand mode of engagement.' In such a situation we will be better suited to handle sudden arousal, which also points to the ability to build handrails as being related to the ability to tackle emotions and arousal. Revisiting the situation in the first scene at FintechOrg with Hans, Anne and the assembled group of middle

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[89] We can of course debate Weick's idea of this mental space – it comes fairly close to Freud's description of the human mind consisting of id, ego and superego. However, it lies outside the scope of this work to pursue this comparison further. In the present context, I will simply accept Weick's concept of a mental space and build on that, cognizant of his bricolage writing style.

managers, Johnny's outburst and Gitte's follow-up changed Hans and Anne's ready-to-hand mode of engagement into an unready-to-hand mode of engagement. The executives had no opportunity to step out and reflect in a 'present-to-hand mode of engagement'. They had to drop their plan for the meeting and carry on in a 'ready-to-hand mode of engagement', which they could only do because years of training had given them the embodied knowledge to do so. They thus covered the gap between the two modes of engagement via embodied knowledge.

9.1.4. Cues and the body

The ability to register cues in the periphery depends on whether people are comfortable in letting the body lead and feel secure enough to listen to what it tells them in order to act appropriately in a given situation. It involves moving away from what Dewey (Vo & Kelemen, 2014) calls 'background knowledge', also known as 'habits', feeling safe 'at home', and into what I will term 'an amber area', referring to the amber or yellow traffic light. Being in this area requires us to listen to cues, guided by embodied sensitivity and knowledge in an early state – cues that might constitute a potential deconstruction of our known world, home and habits. Being open to what comes and exploiting the cues to gradually deconstruct the known can be a way to prevent a potentially disruptive situation. However, as described above, it also requires a tool-dropping capability. Weick explains this in several of his contributions (Weick, 1993, 1996, 2007) without, however, articulating the role of the body, although he indirectly returns to it again and again. I thus see a potentially fruitful dialogue between Weick's writings about the unexpected and the deconstruction of the known and design researchers' points about designers' embodied knowledge, as shown above.

Time plays a role when it comes to building handrails from cues in the periphery. This reaches back to Weick's points about sudden events that occur in an unorderly manner and cancel the experience of time as a linear phenomenon. For the bank representatives, the realization of the new payment solution based on an unexpected event threw them into an unknown situation that they initially experienced as new and unpleasant. This sparked strong emotional reactions, since they could no longer make sense of what was happening. Suddenly, however, it turned out to be a *positive* cosmology episode. Hock's manoeuvre was only possible because he suddenly cut off

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the first handrail (the closing of the collaboration, and with it the identity of the bank representatives), shut down the bank representatives' 'present-to-hand mode of engagement', created an 'unready-to-hand' situation, and coerced them into a movement in an unknown direction with an uncertain 'ready-to-hand mode of engagement'. Simultaneously, he offered a new handrail, which they were again coerced into accepting in the 'ready-to-hand mode of engagement', which in turn soon led to a 'present-to-hand mode of engagement'.

I will suggest that if the bank representatives had been able to sense the cues in the periphery, they would not have been surprised; on the contrary, they would have been able to prepare for the situation, just as Anne could have been prepared for my question about the concept of a bank if she had paid attention to the cues in the periphery.

The above examples point to the ability of handrails to bring the interrupted projects back on track and thus reduce emotional anxiety. Weick expresses it as follows:

'emotion is what happens between the time that an organized sequence is interrupted and the time at which the interruption is removed, or a substitute response is found that allows the sequence to be completed. Until either occurs, autonomic arousal increases.' (Weick, 1995a, p. 46)

In the VISA case, Hock offered 'a substitute response' – a handrail to the cues in the periphery – immediately after removing the existing handrail – the agreement that the payment solution would not be realized. In my interview with Anne, she found a handrail herself by referring to her own opinion that the banks' business model would not last.

Cues also play a role in design that has not become finalized. Weick points out that vigour in a design is best achieved if it is unfinished and incomplete, as was the case, for example, with Gehry's first house. The walls were raw and unfinished, and the Chinese fish painting was only a single brushstroke, which made people doubt what they saw; as a result, they did not feel that they were on secure ground and were uncertain exactly how to label what they saw, illustrating the point about holding labels lightly. Gehry thus made his audience wonder and then decide for themselves how to make sense of what they saw. Depending on their perspective, some will find

such an experience pleasant, while others will fail to find the handrails and hence experience strong negative emotions or arousal due to too many cues they may sense, but do not have words for.

Drawing on Weick's work, with support from design researchers' points about embodied knowledge, we can develop a new theory based on what is left out and identify a new point about the significance of training and habituating the body to confidently perceive cues in the periphery and thus relax the autonomous nerve system's fight-flight reaction.

9.1.5. Embodied knowledge

However, this advice might not be easy to follow, as exemplified by Weick's analysis of the Mann Gulch case, where the firefighters did not see the tools as separate from their bodies. Weick does not directly address the role of the body in the tool-dropping processes. This is where the design researchers Amacker (2017), Kimbell (2011), Johansson-Sköldberg, Woodilla & Cetinkaya (2013), Ravasi & Stigliani (2012), Rylander (2009) and Hjelm (2005) come into the picture, as they may be able to explain what is missing in Weick's work concerning the relationship between tools and embodied knowledge, and vice versa: via Weick's texts we can identify what design researchers do not articulate in their focus on the role of the body. As suggested by Rylander, designers achieve embodied knowledge through their work in design studios:

'their central educational device. In a process of learning by doing, students are set a series of design problems to solve (…) Design as problem solving is thus embodied in character and requires the ability to embrace many different kinds of thought and knowledge—art, science, and technology.' (Rylander, 2009, p. 10)

Following this, I would like to connect Weick's proposition about the unity between tools and identity with the writings of Rylander (2009), who in her argument for designers' embodied knowledge refers to empirical research within cognitive science, which 'has clarified, [that] everything that we can experience, think, and know is dependent on how our bodies and brains cooperate in thinking and acting. In other words, all so-called intellectual activity is embodied', and that 'language itself is embodied in character' (Rylander, 2009, p. 14).

Just to briefly recapitulate, Rylander (2012) points out that the Pragmatist philosophy is often referred to as encompassing a theory of embodiment, because it does not accept a separation of body and mind. On the contrary, anything that we can 'think and feel or do is thus conditioned by our biological make-up' (ibid.). 'Thought encompasses so much more' than the single words, he (William James) claimed, including for instance the silence following a thunder: '(…) James notes, the *feeling* of thunder implies that there is a certain quality of a thought that can be felt, but not named. And if it can be felt, then consciousness is always embodied' (Rylander, 2012, p. 10). Or, conversely: I would argue that if we are not aware of using our body and our feelings, we are severing parts of our consciousness and thus diminishing our options for action and reflection. This, in my point of view, is what Weick is talking about when he says, for example, that we should drop the tools of rationality. However, just as Weick does not explicitly articulate the role of the body, the Pragmatists and design researchers do not see tool-dropping as part of making processes.

I will argue that although Weick, in my interpretation, repeatedly, albeit indirectly, refers to the importance of embodied knowledge related to change, he never makes it an explicit theme in his writing. He often writes about tools to be dropped, as mentioned above, but he has not demonstrated how it can be trained or discussed it in the context of organizational innovation. The only exception is some of his points about firefighters, whose training involves measuring how fast they can run with and without tools and in that connection explore what can be dropped and what should be kept. This is an example of a way to gain embodied knowledge by exploring, through training, how tools affect one's experience or how it feels to drop tools and run.

Artful change agency in summary

In summary I have constructed the new concept, *artful change agency* based in part on Weick's different change figures while, however, pointing to the tool-dropping capability as a driver of reorganizing for innovation. The latter means that the deconstruction capability is equally as strong as the reconstructing capability. The concept describes processes that continually move on, oscillating from habits and the familiar over the deconstruction of it, performed through tool-dropping, and further on to reconstructing by building handrails to cues in the periphery through

what Robert Irwin describe as the six stages of perception: perception, conception, form, formful, formal and formalized. More specifically, artful change agency behaviour is capable of facing and embracing emotions caused by cues in the periphery, moments of confusion, collapse of sensemaking and cosmology episodes. Artful change agency revolves around holding 'labels lightly' (Weick, 2004b), stops finalizing processes and thus allows individual interpretations of the perceived, meaning that the last or last two of Irwin's six stages are not completed. Artful change agency also embraces the subject-object dichotomy by acknowledging that our familiar perception of reality, which has often been turned into a dangerous design, needs to be unravelled or dissolved.

Part of the foundation for Weick's figures is the work of William James and John Dewey, who also make up part of design researchers' theoretical framework when they describe design practice, more specifically their understanding of professional designers' embodied knowledge. Certain aspects of the work of Austin and Devin (2003) have also supported the concept. The idea of the performance process of a play running 'from the vague to the less vague', which I read as the three stages in the middle of Robert Irwin's six stages: conception, form, formful; the idea of working collaboratively, where individuals make use of each other's mental material; and, finally, the transmuting element found in the art of the weak (Hjorth, 2012c).

I have sought to clarify that aspects of this umbrella concept drive the continual process of improvising via deconstructing and reconstructing processes, via the transformation of unfamiliar material into the familiar, driving processes that create ideas, realize them via engaging collaboratively and organize around the new, in part by bringing in cues from the periphery to collaborators via handrail-building processes. Artful change agency moreover embraces an ability to sense cues in the periphery, because this kind of agency involves becoming familiar with strong emotions and arousal and thus developing an ability to calmly embrace the feelings that are triggered by the new and unfamiliar. Artful change agency also implies the ability to enjoy freedom, for instance in terms of being independent of both past and future. Furthermore, artful change agency is not by definition driving the good, which is often said to characterize the designer or design thinking, an assumption that has been criticized by Orlikowski (2004), and Hassi

and Laakso (2011), among others. The concept encompasses both the good, the bad and the qualities in between, because it is up to the engaged individuals to decide the specific quality when they experience the result of the agency.

9.2. Highly coordinated people and artful change agency

The above points about the three different modes of engagement (ready-to-hand, unready-to-hand and present-to-hand) and about the tendency of the unfamiliar to stimulate emotions of various qualities are relevant with regard to reorganizing for innovation. Emotional reactions are particularly difficult to handle for the category of people Weick calls 'the highly coordinated people'. He states that 'if crucial events occur that are beyond the reach of labels that smooth social life, then the coordinated people will be the last to know about these events' (Weick, 2004b, p. 42). As I showed in the literature review, the innovation literature has a variety of expressions for the same tendency. In other words, if we do not understand what is happening right in front of us, because we lack relevant concepts and words, the highly coordinated people may not be able to register it until it is too late. This is of course crucial in relation to disruption, change and innovation, because if we fail to register potentially harmful events, we will feel no need to reorganize for innovation. I see at least four reasons for this mechanism, which might offer explanations for why groups, including executive teams, become subjected to unexpected and disruptive events, as described in Chapter 3, or, in Weick's terminology: to 'cosmology episodes'.

The first two reasons are related to individuals' tool-dropping skills, the third to the top-down management style, where executives isolate themselves from employees' insights and undermine the emergence of the triangle of trust, honesty and self-respect, while the fourth relates to the 'present-to-hand mode of engagement' as a preferred behaviour rather than the 'ready-to-hand mode of engagement', in which the body leads when people experience an 'unready-to-hand' situation. All four reasons strengthen group coordination and thus promote the exclusion of insights and perspectives from outside. The four reasons are elaborated in the following.

First, highly coordinated people will follow each other due to what Weick calls *social dynamics*, which is one of the ten reasons why people fail to drop tools (Weick, 1993b, 1996, 2007). They follow each other simply because they conclude that they themselves would be wrong if they feel out of order, as Weick finds in his analysis of the case of the firefighters in Mann Gulch. In my analysis of the empirical material, I found that Anne rapidly returned to the executives' coordinated understanding of a bank, dropping her own feeling that the banks' business model would not last.

The *second* reason, as I see it, is that of *identity*, which in the case of an executive team or management group and its board means that they affirm each other in aligning themselves with the organization's or the group's identity: for example, we are a company that supplies banks with IT solutions, as opposed to supplying something else, for example IT services to the local bacon factory. This means that the identity and the organization's services become 'one seamless unit' (Weick, 1993b, 1996, 2007); the effect is even more pronounced if we add Weick's above mentioned points about 'social dynamics'.

Third, the *top-down management style* diminishes sensemaking efforts in cooperation with the organization's employees, who have many insights that could benefit innovation and organizational resilience. This management style will, moreover, undermine the triangle of trust, honesty and self-respect and maintain or even increase the distance between the executives and the rest of the organization. On a conscious level this management style furthermore subscribes to the subject-object dichotomy, which risks increasing disruptive events, as exemplified in my fieldwork where the innovation agenda undermined the innovativeness of the organization and diminished the innovation results.

The *fourth* reason I suggest is that the highly coordinated people prefer to operate in a 'present-to-hand mode of engagement', in which rationality prevails over intuition and so forth, in a mind-over-body approach that keeps emotions at arm's length and preserves habits and smooth routines. This helps create what I would call 'a conservative safe space', a spectator's position, which I described in the methods chapter, as a place that the researcher can step out of and act

(Czarniawska, 2016b; Weick, 1999a, 2002). We saw a way to tackle an unready-to-hand situation in the scene with Hans and Anne at FintechOrg, which was only possible by them transcending the subject-object dichotomy and acting in a flow, even though their intended actions were interrupted.

If we instead prefer to stay in the 'present-to-hand mode of engagement', we tend to exclude elements that provoke us emotionally, and, as Weick and Sutcliffe (2015) state, we seek 'the first explanation', because that lets us remain in control and avoid the 'discomforting' second explanation. I would add that this happens because we seek to avoid strong emotions and unpleasant feelings. In Weick and Sutcliff's framework that is what is expressed in the quote below:

'Nonobvious breakdowns happen all the time. Some are a big deal. Most are not. But which are which? The answer to that question is hazy because we tend to settle for the "first explanation" that makes it feel in control. That explanation turns the unknown into the known, which makes the explanation appear to be "true." That can be a serious misjudgement. (…) "[t]he second explanation," the one that discomforting though it may be – treats the unknown as knowable.' (Weick & Sutcliffe, 2015, pp. 1–2)

This also means that the highly coordinated people will not need to make sense in cooperation with individuals outside the group, because they only open the door to outsiders to a very limited extent. The 'outsider' will then be solely responsible for making sense of the 'crucial events' 'beyond the reach of labels that smooth social life' (Weick, 2004b, p. 42), create the handrails and lead the group to a new reality – as Gehry does when he works with clients through dialogue and habituation over a longer period of time.

9.3. Artful change agency and theoretical perspectives

Reading the concept of artful change agency into the context of the managerial aspects of innovation and of design reveals a new perspective on the two fields of research. I will discuss that in the following by taking my point of departure in the concept itself. Thus, I describe particular aspects of the concept in turn and then, successively, relate each aspect to the managerial aspects of, on the one hand, innovation, and, on the other, design. In total, I will account for three aspects of the substance of artful change agency and how they relate to the

two fields of research: 1) the cross-ontological perspective, 2) the sensemaking process's two main phases (deconstructing-reconstructing), and 3) the value of artful change agency.

First, theoretically, artful change agency connects and embraces the ontologies of the different research fields whether they subscribe to the subject–object dichotomy or not, a dichotomy that I suggested the literature on design thinking (in the management discourse) only alludes to. This means that artful change agency comprises several ontologies. On the one hand, the innovation management literature has played a vital role in developing the concept of artful change agency due to the focus on disruption of businesses, which was a concern of the executive team at FintechOrg. Additionally, the definition of innovation as a particular artefact supports the tendency to single out bits and pieces of reality and makes new ideas vulnerable to resistance, which according to my analysis occurred at FintechOrg. On the other hand, continuing with the innovation discourse and now focusing on the subject–object dichotomy, resistance to the new may be diminished if this dichotomy position is discarded, as I also discussed in the analysis of the case. Discarding the subject-object dichotomy is possible for artful change agency by transmuting the new into acceptance (Hjorth, 2012c) and by dissolving the familiar.

Also, being an experienced tool-dropper may diminish resistance due to reduced emotional experience, which was discussed in the Gehry case, specifically in relation to his use of Schreck models, and in the analysis of my discussion of the concept of a bank with one of the executives. Regarding the design discourse, the consequence of connecting ontologies is simultaneously a suggestion of a way to handle what Johansson and Woodilla (2008, 2011), criticize as paradigmatic incommensurability between design practice and (scientific) management.

In other words, the concept of artful change agency suggests a way to overcome paradigmatic incommensurability between the resource behind design thinking (design practice) and an understanding of management as described by Johansson and Woodilla (2008, 2011) and Johansson-Sköldberg et al. (2013). Instead of confronting the worldview that is based on a subject–object dichotomy by singling out certain figures to handle the organization's innovation endeavour, as it was done at FintechOrg, or singling out specific ideas, artful change agency simply

takes the collaborators through a process of unknown time, potentially exposing them to Schreck models and thus familiarizing them to the experience of strong emotions or, by dissolving the familiar, transmutes the new into acceptance (Hjorth, 2012c).

Second, based on Weick's sensemaking perspective and his many change figures, I constructed an alternative, based empirically on both the tool-dropping exercises and the innovation and disruption debates in my fieldwork. I furthermore found that artful change agency behaviour is capable of tearing down the known and rebuilding it in a slightly different shape via the sensemaking process, which I broke down to the *two main phases*: a) deconstruction based on tool-dropping processes as a result of this agency having been familiarized with strong emotions and arousal provoked by moments of confusion, collapse of sensemaking and cosmology episode via an ability to sensing cues in the periphery through embodied knowledge; b) reconstruction via handrail-building process between cues in the periphery and collaborators as well as a process consisting of Irwin's six stages of concept creation (perception, conception, formal, form, formful, and formalize).

With regard to the innovation discourse, innovation driven by artful change agency happens continually and invisibly through non-verbal micro-processes that do not prevent, for example, handrail-building processes out of airy nothing or prevent cues in the periphery becoming visible. This contradicts innovation understood as facts out-there to be identified and managed and instead regards innovation as processes that should be guided, understood as 'release' (Austin & Devin, 2003), instead of being explicitly put on the agenda, as was the case at FintechOrg, which made it crystal clear what was happening and hence easy to resist.

Moreover, radical innovation, as another aspect of innovation, can via the artful change agency concept be described as an experience by (groups of) people who have not been part of the sensemaking process of developing a new product or service. Through the process, they make sense of things, which familiarizes them to the new, as mentioned above. This in turn means that since people outside the process have not been familiarized with the particular new invention,

they risk being surprised and overwhelmed by emotional reactions, which in my understanding equals a deconstruction process, albeit a tacit one.

I have also identified a risk of increasing disruptive processes by subscribing to the subject-object dichotomy, since according to that worldview, the new has been singled out, labelled and conceptualized and further turned into the familiar and to habits that function unconsciously. Highly coordinated people also increase the risk of disruption because they tend to cut off cues in the periphery, for instance by ignoring hints from employees (which according to my analysis happened at FintechOrg) by violating the trust, honesty and self-respect triangle or by increasing internal highly coordinated social dynamics instead of trusting and listening to employees and collaborators. Moreover, delegating responsibility to the experts managers rely on and then refraining from embracing the superior knowledge position would be in line with the behaviour of artful change agency.

Disruption can furthermore be described as highly coordinated people experiencing a sudden and unexpected event as a pressure from the environment that forces them to drop tools (the familiar, habits and so forth). Artful change agency creates resilience through deliberate tool-dropping at an early stage, for example when people experience moments of confusion and thus succeed in creating a disruption defence, for example due to the ability to sense cues in the periphery for which there is no language or concepts but only feelings and embodied experience, such as laughter in response to a question about the concept a bank, which was the case in my interview with Anne.

The reconstruction process, making sense of cues in the periphery via Irwin's six stages, may equal what the innovation literature in short defines as the innovation process: to innovate a product or a new service. Similarly, the design literature describes the making of a new product as a process. However, failure to acknowledge that there may be no language or any other means by which to detect such as an idea or invention due to a position that implies a subject-object dichotomy, will hamper the innovation effort. Artful change agency behavior, on the other hand,

enables people to reach out via embodied knowledge, to cues in the periphery for which there may be no language and then transform this experience into communication with collaborators.

Regarding the design discourse, stressing designers' ability to question basic assumptions artful change agency more specifically simply asks about the tools, which contributes to transmuting the new into acceptance and dissolving the familiar. The latter may also be achieved through what Austin and Devin (2003) call 'facilitating individuals to balancing on their edges', which further, from an artful change agency perspective, may be described as familiarizing individuals to strong emotions and arousal via tool-dropping training. However, tool-dropping also creates handrails to the involved by taking the point of departure in their own specific familiar world. Design thinking proponents furthermore talk about keeping the process open and liquid for some time, which from an artful change agency perspective could be described as habituating people to the unfamiliar, as exemplified by Gehry's use of Schreck models.

9.4. UTC as a dangerous artefact

I began this dissertation with a prelude about the instigation of the coordinated world time in 1884 (Time and innovation) in which I argued that coordinated world time could be seen as an innovation. With regard to literature on innovation and disruption, the perception of time plays a significant role. For example, if people subscribe to the subject-object dichotomy they will tend to understand time as scientifically documented, linear and 'unfolding in an orderly manner' (Weick & Sutcliff, 2015) and will thus expose themselves to sudden and unexplainable events. This means that if we tend to think of universal coordinated time (UCT) as a natural scientific fact unfolding in an orderly and linear manner, we expose ourselves to sudden surprises and potentially disruptive events.

Artful change agency furthermore teaches us that we cannot rely on scientific time when it comes to change and innovation. In terms of innovation, however, belief in time as a scientific fact will continuously counteract innovation efforts, because the scientific time may equal the important value in today's world: money, as we saw in a dialogue between a bank representative and an employee of FintechOrg. This in turn leads to the view on the definition of innovation as an

invention or idea + a business case and engenders resistance to the innovative endeavor by referring to the limited possibility of using 'expensive time'. As a further consequence, a relatively long innovation process, as measured in 'scientific time' risks being cut off, because it is considered too expensive for the business.

Concluding remarks

Given the reviewed literature's collective claim that we have to engage in innovation efforts to be able to cope with today's hypercompetitive business environment, we need new knowledge on how to take on that task. In the concluding discussion I took my point of departure in the theoretical construct of artful change agency that I developed as an alternative to design thinking in the management discourse. I considered that an alternative concept to design thinking in the management discourse was needed, because the concept did not stand up, neither theoretically nor empirically. Based on my research I suggested the new construct of 'artful change agency' and discussed the concept in relation to the collective and partly invisible innovative behaviour that I observed at FintechOrg. I argued that we can recognize this kind of agency on the ability to deconstruct the familiar, which is also expressed as the ability to drop tools, and reconstruct our familiar world, also expressed as the ability to build handrails to cues in the periphery via the process described by the artist Robert Irwin, from our initial perception of the new to the stage where it has become a too-fixed artefact, also known as dangerous design. Further I argued that emotions and embodied knowledge are closely related to the capability of this agency. While experienced tool-droppers and handrail-builders are able to relax and handle their emotional reactions, and thus more capable of dealing with sudden unexpected events, highly coordinated people tend to isolate themselves in closed groups. Artful change agency is thus not found among highly coordinated people, who tend to cut off cues in the periphery and protect themselves in safe, conservative spaces where emotional provocations are limited. This, however, will increase the risk of harmful disruptive events.

I concluded the discussion by referring back to the more than century-old invention of 'universal coordinated world time', which I argued has turned into a dangerous design that is difficult to unravel.

Chapter 10. Insights, contributions and further research

My study of organizing for innovation at FintechOrg during 18 months in 2015 and 2016 has now come to an end, and in the following I will conclude the dissertation by highlighting what we can learn and summarizing the contributions it makes to research and practice and the path to these contributions.

10.1. Insights and contributions

I encountered the case organization, FintechOrg, at a time when the executive team had just put innovation on the agenda, which made it a unique opportunity to study organizational innovation orchestrated by an executive team. The study is a result of 18 months of ethnographically inspired fieldwork and is based on my analysis of what I found to be FintechOrg's tradition for improvising, conducted in a conversation with the research literature. During the discussion of the insights from the analysis I developed the new concept of *artful change agency* as an alternative to design thinking in the management discourse for organizing innovation in established organizations.

However, in order to do that, I first had to develop a new theoretical framework based on different but related fields of research: the managerial aspects of innovation, design and organization. In the following, I first summarize the development of the framework and then summarize the three other contributions of the study: artful change agency as an umbrella concept for three sub-concepts, the Weickian perspective of tool-dropping as an enabler of innovation and the method of being absorbed by the process.

10.1.1. The multi-diverse theoretical framework for organizing innovation

The call for innovation, the particular case and my aim of exploring the concept of design thinking in the management discourse (as a branch of design management) led to the creation of *The multi-diverse theoretical framework for organizing for innovation.* This I see as the first contribution of the study, generated by the challenge of inviting theoretical perspectives from a variety of disciplines, comprising research on the managerial aspects of innovation, design and organization. This revealed ontological differences, which were pointed out by Johansson and Woodilla's (2008, 2011) and Johansson-Sköldberg et al.'s (2013) writings on design management

and design thinking in the management discourse. Additionally, metatheoretical perspectives on organization and management studies also call for investigations of ontological differences between the literature from the cross-disciplinary fields. Consequently, I asked, *How can we construct a coherent theoretical framework, drawing on management of innovation, design, and organization studies, that enhances our understanding of organizing for innovation?* as a sub-question to the main research question.

As an answer to this I proposed a new multi-diverse theoretical framework on organizing for innovation that weaves together the perspectives of the theories. Based on literature reviews in four theoretical chapters I conclude the discussion by pointing to two common denominators of the literature – first, a common statement that innovation is needed in today's hypercompetitive global business environment, in which businesses are threatened by the phenomenon of disruption; second, the reviewed literature is, according to my analysis, based on different perspectives on the subject–object dichotomy. It should, however, be noted that this is not always a clear distinction to make. It is perhaps more apt to say that I see the subject-object dichotomy as a tendency within the literature, which I expand and discuss in relation to innovation.

First, the literature on the managerial aspects of innovation was predominantly found to subscribe to the subject-object dichotomy. This means, for example, that 'the organization' is indirectly referred to as a stable and well defined entity, which is increasingly subjected to disruption, expressed as a hypercompetition (Biedenbach & Söderholm, 2008; D'Aveni, 1995; McGrath & Kim, 2014), Schumpeterian Waves (Ahmed & Shepherd, 2010) and postindustrial multiple becomings (Hjorth, 2012b). Second, the reviewed literature on organizational entrepreneurship, on the contrary, abandons this static view of the world in favour of a processual one. This view is also shared with the position in organization and management studies that I refer to as the Scandinavian critical, constructionist, reflexive and processual approach to organization and management studies. One consequence of applying a process approach to the organization is that it becomes more difficult to examine the concept of disruption, since the perspective on the organization revolves around processes between individuals. This makes it hard to state what precisely is going to be disrupted, since the world and its inhabitants are continuously becoming.

This further has implications for the understanding of innovation. While the innovation management literature predominantly sees innovation as a 'process and a fact' as, for instance, Dogson et al (2014), organizational entrepreneurship proposes the concept to be understood as invention + entrepreneurship (organization creation) (Hjorth, 2012b), which implies that the organization is created by people in new relationships. Research on the managerial aspects of innovation is thus characterized by being founded on different ontologies. The same characterizes the managerial aspects of design, a research field (also expressed as 'design management') that focuses on the relationship between the practice of professional designers and how their work is managed. Referring to Burrell and Morgan's (1979) paradigmatic matrix, Johansson and Woodilla (2008, 2011) analyse this relationship, characterizing it as paradigmatic incommensurability. They position design management in Burrell and Morgan's (1979) functionalist paradigm, while they see design practice as being based on the human constructionist paradigm.

Johansson et al. (2013) offer an analysis of research on design thinking in the management discourse and its metatheoretical foundation. They consider this concept to be founded on rationalism when related to management, which in my view can be expressed as being situated in the functionalist paradigm (Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013). Additionally, this criticism of the concept was supported by critical design (Amacker, 2017; Hjelm, 2005; Jahnke, 2013; Johansson-Sköldberg & Woodilla J., Cetinkaya, 2013) who found that the concept of design thinking reduces its source – design practice – and excludes several aspects of it – including designers' embodied knowledge stemming from years of work with materials in design studios (Rylander, 2009). When writing the literature review I thus found that the concept of design thinking was challenged in the management discourse, which led me to explore further opportunities for the concept – initially via Pragmatism, a philosophical school that is often used to inform design practice. I thus further reviewed two classical Pragmatists', William James and John Dewey, key concepts related to the abandoning of the subject-object dichotomy, the construction of reality, embodied knowledge and artistry as an innate human competence involved in making.

Seeking a research perspective on organizing for innovation, which, like research on design practice, abandons the subject-object dichotomy, I referred to Austin and Devin's (2003) work on artful making. They contribute to an alternative perspective on organizing making processes in organizations by referring to preindustrial artisans' way of working and demonstrating how such an approach may be managed today. Among other points they highlight the practice of iterating as part of 'artful making' and as an alternative to industrial making, which in their view implies serial and linear processes. Austin and Devin (2003) are invited into the theoretical conversation because they present this alternative to industrial making by referring to the preindustrial artisans.

Moving a little further ahead towards organizing for innovation based on a cross-disciplinary theoretical framework, I also invited Karl Weick as an organizational scholar to contribute to the construction of the multi-diverse theoretical framework. I find that his work has a connective capacity to embrace the different ontologies of the research fields involved in the study. While being anchored in process theory, Weick also reaches out to the larger world that subscribes to the subject-object dichotomy, which becomes clear in his studies of American disasters. In his work he writes on what goes on among individuals in a group when they are exposed to sudden unexpected and harmful events. In this connection I highlighted the Mann Gulch piece (Weick, 1993b) because Weick here demonstrates how sensemaking processes can suddenly collapses, which he terms disruption. Contrary to the innovation management literature's description of disruption as the destruction of established businesses (Christensen, 2000; Christensen & Rosenbloom, 1995; Henderson, 2006; Sandström, 2010; Sull, 1999), Weick uses the term to mean the collapse of internal organizational collaborative processes.

10.1.2. Artful change agency

This multi-diverse theoretical framework on organizing for innovation was now expanded via my analysis of the empirical material, whereby I constructed the concept of artful change agency to characterize the practice of organizing for innovation in established organizations. This, as I see it, is the second contribution and offers an alternative to the concept of design thinking in the management discourse. I suggest it as an alternative because I find it paradigmatically consistent

since it is one of the characteristics of preindustrial artistry (Austin & Devin, 2003; Heskett, 2002; Shiner, 2001), on a process-based ontology, and on a socially constructed worldview that does not take anything for granted but instead engages in Sisyphean effort to tear down what has become too-fixed artefacts and dangerous design (Weick, 2004b, 2011). The new concept is mainly based on Weick's sensemaking perspectives (Weick, 1995a, 2004b). It encompasses the following three capabilities: 1) the tool-dropping ability to *deconstruct*, described in detail over three different phases, which Weick calls moments of confusion, collapse of sensemaking and cosmology episodes. These concepts are grounded in Weick's research on disasters and describe three stages of human individual and collective collapses that lead to the organizational situation that innovation management scholars call disruption.

2) The second capability is that of building handrails to cues in the periphery, which makes it possible to transfer impressions from the periphery to collaborators. This is, further, as a third contribution, described in detail via six stages of perception that transmute the new into innovation by cutting out bits and pieces of 'reality' before it becomes a dangerous design. I view these two capabilities as 'reconstructing the familiar'. The discussion thus attempts to bring together the literature across ontologies, which also leads me to conclude that we can understand Weick's work on sensemaking and improvising as containing a connective capacity across disciplines and ontologies.

10.1.3. Further contributions

The study also contributes to the literature on sensemaking and innovation. In their comprehensive literature review, Maitlis and Christianson (2014) point to opportunities for future research, including the relationship between sensemaking and innovation. As they note, 'a small but growing body of work links sensemaking to processes of creativity (…) and innovation (…).' (Maitlis & Christianson, 2014, p. 92). They state that the organization's 'prior frames' often act as barriers to seeing problems from different points of view, which sensemaking contributes to mitigate. Here they refer to research into innovative firms 'showing the importance of organizational sensemaking' (ibid., p. 93) and, on the other hand, the lack of sensemaking across silos. As an outcome of this study, I will claim that tool-dropping – the deconstructive phase of

the sensemaking process – as a way to facilitate the new is also a contribution to literature on sensemaking and innovation. The tool-dropping workshops and my process approach to fieldwork are connected, since they were the outcome of the process approach to the field, where I allowed myself to be absorbed by the process. Thus, the method of letting oneself, as a researcher, be absorbed by the process as a way of achieving a research result is a contribution to research on process theory about experiments.

10.1.4. Insights and learnings from the study

The study caused me to question organizing for innovation the way it was done in the field by officially putting innovation on the organizational agenda. This is not to say, of course, that an explicit innovation agenda would not work in any other context, in other businesses; however, for reasons I have discussed in the analysis, it was counterproductive at FintechOrg. I nevertheless presume that the executives, managers at diverse levels and employees regard the new initiative, which focuses on changing FintechOrg's IT production style, as a huge accomplishment and an innovation achievement. As I mentioned earlier, I am not disputing this perception. My point is that organizing for innovation in such a way may very well be placed in the category 'choosing the first explanation' (Weick & Sutcliffe, 2015), which in a later situation may lead to sudden harmful events, as highlighted by Weick (1993) and Weick and Sutcliffe (2015). The above conclusion is also a reminder to scholars of innovation management that we should perhaps be a little more cautious about encouraging organizations and managers to embark on innovation before the particular organizational circumstances are uncovered.

In summary, the study contributes to the literature on the managerial aspects of innovation by providing a theoretical framework for analysing and thus uncovering structures in existing organizations that support or hamper innovation.

10.2. Recommendations for further research

As a first suggestion for further research I will, of course, invite future projects to contribute to the concept of artful change agency. Herein lies a variety of opportunities because the construct incorporates a wide range of aspects. One avenue to follow could be to investigate whether the

behaviour I have described through the different concepts can be recognized in a group of collaborators. Who takes on the role of the deconstructor, and who takes on the role of the reconstructor? Do different individuals take on the roles in turn, or is it always the same person who takes on the same role? This will presumably vary from group to group and from industry to industry. Further, the role of the magician could be interesting to explore, too. In the present work, the theme is only vaguely covered through my interpretation of Weick's piece about Gehry and Hock (Weick, 2004b).

With regard to research on management, I would add that according to my learnings, it is a necessary condition that executives accept and seek heterogeneous others and engage with them in symmetrical relationships or, more precisely: accept what Weick names the triangle of trust, honesty and self-respect (Weick, 1993b, 2017). If they neglect questions about the taken-for-granted, if they behave as 'highly coordinated people', who will be the last to know about the new, they risk limiting innovation and exposing themselves to sudden, unexpected and damaging events (Weick, 1993a, 2004b). In this regard, I suggest that researchers subject, especially, executives' deconstruction of taken-for-granted ideas of the world and concepts to a deeper inquiry. By following up on the dissertation's insights into the importance of embodied knowledge for the innovation capacity, further research could explore whether executives via training could learn to drop taken-for-granted assumptions of the world and increase their embodied knowledge of cues in the periphery.

With regard to the design field, another approach to a future study could explore the insights from the section on Irwin's six stages of perceptual process in a setting where professional designers are active. In particular, it would be interesting to see whether professional designers might make use of this handrail building process, in a way that non-professionals do not.

The concept of artful change agency also embraces critical design researchers' claim that embodied knowledge of design practice has been left out of the design thinking discourse. In extension of that the concept of artful change agency offers an understanding of how emotions and arousal provoked by the unfamiliar, for instance via moments of confusion, collapse of

sensemaking and cosmology episodes relate to embodied knowledge. While Rylander (2009), for example, sees the studio as the design schools' preferred educational device, I will suggest further research to explore whether this learning device also is a laboratory for training tool-dropping by continually familiarizing students to the unfamiliar, by which students of art academies (art-based design schools, and schools of architecture) become *experienced tool-droppers*. Could it for instance be the case that these schools' students' years-long training in tool-dropping occurs concurrently with training in making with materials as a part of their professional practice?

Another interesting avenue would be a historical investigation of art-based design schools as time capsules having preserved 'pre-modern ideals of art' (Jahnke, 2013, p. 83) and nurturing the embodied knowledge of how to deal with the gap between the 'ready-to-hand mode of engagement' and the 'unready-to-hand mode of engagement' at the periphery of the development of society since the beginning of the age of industrialization? Following this idea, the art academies and art-based design schools have nurtured the general human capability to apply embodied knowledge and practice that Dewey reflected on (Rylander, 2012; Shiner, 2001; Vo & Kelemen, 2014). (While Rylander refers directly to 'embodied knowledge', Shiner refers to feelings and aesthetic experience in discussions about art versus craft, which I read as embodied knowledge, and Vo and Kelemen emphasize Dewey's reflections on the difference between tacit background knowledge or habits, which usually function 'smoothly and without deliberation'. Regarding the latter, I see habits and background knowledge as expressions of embodied knowledge.)

During the early age of industrialization, when there was a growing need for art skills in industry, design academies were established either as new schools or as departments within existing academies of fine arts (Heskett, 2002; Shiner, 2001). In these new institutions, the general human capability to continuously create something new, involving a holistic integration between mind and body, has been nurtured and developed in contrast to the way it has been gradually unlearned in the expanding industry. This has been highlighted by scholars of social science, who point to the division between body and mind that occurred around the time when industrialization began. Hassard, for example, considers Taylorism a 'highpoint in separating labour from the varied rhythms experienced in craft or agricultural work: clock rhythms replace

fluctuating rhythms' (Hassard, 2002, p. 887), while Hjorth remarks that '[i]ndividual judgment and worker agency was replaced by a system of technologies of control, standards, mechanism through which management was to become "scientific" (…) Scientific quickly meant efficient because it is predictable and thus controllable' (Hjorth, 2012b, p. 6). In a similar vein, McGrath and Kim (2014) point to 'long experience or learning through observations of others' situation', which in the wake of the Second World War was transformed into 'analytical techniques that could be applied, yielding hopefully superior and replicable solutions' (McGrath & Kim, 2014, p. 401). These insights further point to the idea of exploring tool-dropping training for managers and executives or training and reflecting on work with materials for instance within the context of art-based design education.

With regard to further research into organizational entrepreneurship, it would be interesting to investigate the need for heterotopias (Hjorth, 2005). If artful change agency facilitates the capacity to transmute the new into acceptance by keeping the process open and holding labels lightly, would we then need heterotopias? Or organizational entrepreneurship could explore how we can understand the crystallizing of new ideas, in extension of Weick's understanding of cues in the periphery and Irwin's description of the six stages of perception and conception.

10.2.1. Recommendations for management practice

In the dissertation I have presented research contributions that additionally lead to recommendations for management education and practice. For management education, I recommend educational programmes to incorporate tool-dropping exercises to help familiarize future managers to the unknown in order to enhance innovation efforts and prevent sudden unexpected harmful events. This could be done in the way Copenhagen Business School uses the CBS Studio as a maker space, only with added courses on tool-dropping. For practicing managers, I recommend doing the following:

- Organize groups and the organization at large in a way that supports the Weickian triangle of trust, honesty and self-respect.
- Increase your contact across organizational levels in order to make use of organization members' knowledge in general but also about cues in the periphery.

- Increase diversity in groups, the executive team and the board of directors, and reduce the degree of coordination (to avoid people becoming too highly coordinated).

- Strengthen and train your own embodied knowledge and receptivity towards cues in the periphery.

- Look out for innovations in the shadows of old inventions, and consider whether it is time to renew old labels and concepts in order to focus the organization's tasks on the business and avoid sudden unexpected harmful events.

- Remember the individual perspective of the new, the responsibility, moral and ethical aspects of change and innovation – artful change agency is invaluable.

- Educate and make room for artful change agency to facilitate change and innovation and to abandon the excessive focus on time.

The dynamic change and innovation model

On the background of the study and my insights into the role of design practice in the process of leading change and innovation in the context of a fintech cooperative today, I have developed the following model in order for practitioners to get an overview of the many concepts and processes within the dissertation. The model is built on four different parts, which in the end all are combined into one comprehensive model. The purpose of this way of showing the different concepts and processes is to make it possible to return to the individual elements to inquire their meaning, before returning to the bigger picture in the whole model. This means that I in the following run through the individual elements before I finally collect them into one. The first component shows the concepts related to respectively our familiar and unfamiliar world, or the so-call social constructed reality versus the reality presenting it self to us via our stimuli and perceptions of our surroundings. I have hence divided the concepts into two positions – A and B – which is, admittedly, a construct in itself, but which may nevertheless disseminate the concept of artful change agency of the dissertation.

Figure 1.

A	B
Constructed reality	Reality
Fixed/dangerous design/tools	No design, nothing
(Concepts, labels, relations, reifications)	(Stimuli, perceptions, zones)
creating an experience of	creating an experience of
controlled, known	arousal, flight-fight reaction
names, time, space, simultaneously	simultaneously constituting
producing barriers to innovation	sources of dreams, possibilities and innovation

As human beings we make continually sense of what we see, we transform the seen into the known and new meaning. This process is depicted by Weick in the following:

'To make sense of something is to begin to provide a plausible platform for sharing mental models, coordinating activities, and interacting to produce relationships. To organize around

something is to converge on an event whose articulation and preservation feels beneficial and of joint relevance. Sense makes organizing possible. And organizing makes sense possible' (Weick, 2001, p. 95).

This quote expresses that organizing and sensemaking are closely interconnected, understood as sharing, coordinating and interacting. The sensemaking process takes place as shown in Figure 2. The arrows show the sensemaking process oscillating between the familiar and the unfamiliar, between the A and B columns.

Figure 2.

The process of compounding abstractions:
Negotiation, coordination constraints, shareability

Reconstructing

D   ←   ←   ←   ←   C

Concepts, labels, and
reifications   ←---→   Reality, stimuli

A   →   →   →   →   B

Deconstructing
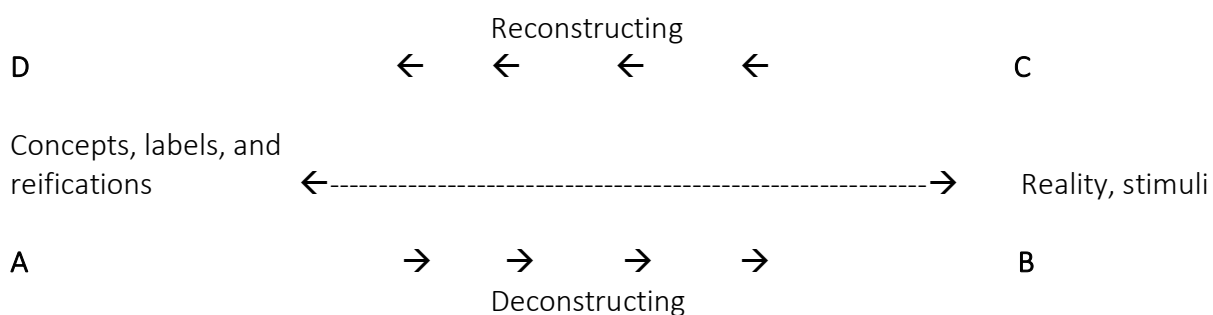
The concepts, labels and reifications constitute our current familiar platform of meaning. The sensemaker moves back and forth between the two poles and thus interprets and creates handrails to the new. During the sensemaking process from **C** to **D**, negotiations, coordination constraints and shareability take place and renew old concepts. By making sense of the new, we arrive at new meanings. Etymologically, the word 'sense' stems from Latin – sensus, meaning 'perception' and 'feeling' – while 'meaning' derives from Latin 'medianus', which means what is in the middle of two extremes. Thus, meaning can be interpreted as different individuals' senses being negotiated in order to find a common meaning to live with. This corresponds with Weick's sensemaking and reconstructing process in the movement from **C** to **D**.

An additional component to Figure 2 is Robert Irwin's suggestion to 6 stages of perception and conception, which constitute the compounding of abstractions upon which Weick draws. The process moves from **C** to **D,** the reconstructing phase starting with our perception of our world ending up with formalized concept in which we believe.

Figure 2b.

<div align="center">Reconstructing</div>

<div align="center"><---</div>

A   B

  formalized   formal   formful   form   conception   perception
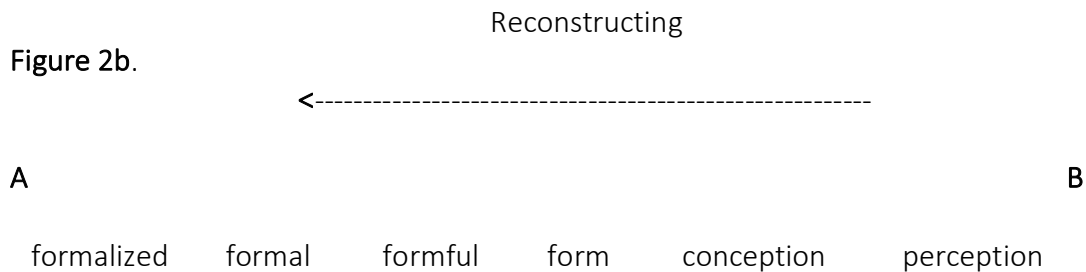
This process is articulated by the artist Robert Irwin and Weick finds it important because he hereby is capable of describing when the process from stimuli to the frozen concepts is reversible, which means that we until then are able to unravel the process. This is possible during the first four stages. From formal to formalized the process turns into taken-for-granted concepts and labels, which we now believe are reality, and which will be difficult to unravel.

Figure 3.

<div align="center">Deconstructing</div>

A   B

Home → Moments of confusion → collapse of sensemaking → cosmology episode
          Threat builds up   Point of no return   Disruption
            Worries increase   Strong arousal
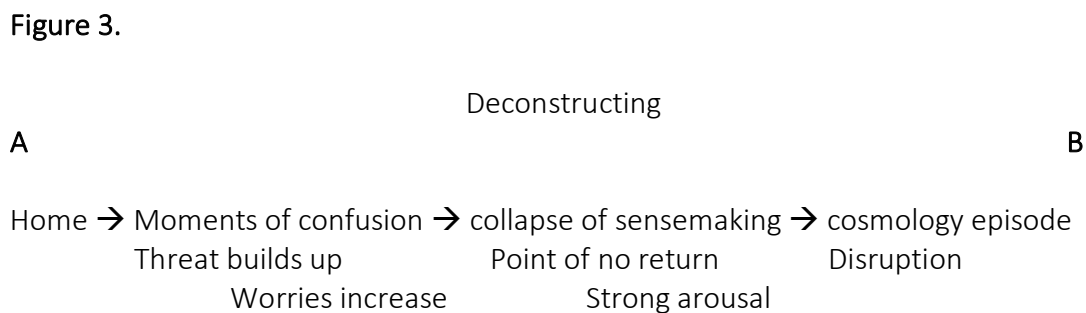
However, the deconstruction process supported by the capability to drop tools is important too – this process runs from **A** to **B**. It summarizes Weick's interpretation of the process of catastrophic events broken down into three phases. An initial soft sign of change (cues in the periphery) 'moment of confusions' is followed by a 'collapse of sensemaking' that concludes in disaster or disruption called 'cosmology episode'. We may be able to prevent the two last phases if we are sensitive towards our bodily impressions from the surroundings and deliberately seek

the new outside our comfort zone by deconstructing current ideas of the world, dangerous and too fixed designs. This can be done through tool-dropping processes.

Figure 4.

The dynamic change and innovation model

D
Dangerous tools/design

< Perceived quality of handrails >

C
No handrails
Nothing

Magic moments
<- - - - - - - Irwin's six stages - - - - - - - - >

Constructed reality, forming identity

<- Re-constructing process by building handrails

Sensemaking processes

De-constructing process through tool dropping - >

Reality outside the known, stimuli, perceptions

Moments of confusion   Collapse of sense making   Cosmology episode

A
Home
Habits, social, time & space control

Threat builds up   Point of no return   Disruption

< Degree of arousal >

Worries increase   Strong emotions

B
No time, no space
Control-lessness

To support the understanding the perspectives of tool-dropping and the magic I have combined Weick's many perspectives on managing as designing (Figure 1, Figure 2, Figure 3) in Figure 4. The compound figure shows social micro-processes of deconstructing and reconstructing the ideas of the world through sensemaking processes and the consequences of acting, being reluctant to act, or choosing the 'first explanation' (Weick & Sutcliffe, 2015), active inertia (Sull, 1999), or 'dictating the possible' (Hjorth, 2012b). The figure is composed via the previous described figures: A and B is taken from Figure 1: concepts, labels, reifications (A) contrasted by reality, stimuli, perceptions (B). Through movement in Figure 2 – the deconstructing and reconstructing sensemaking process – we get a dynamic process between A and B that is supported by the tool-dropping capability as well as between C and D that is compounded by Irwin's six stages, Figure 2b.

In the model, *home* is written in green, referencing the colour of the 'Go!' traffic light. At home, we stand on a platform of meaning, a conservative safe space. The bottom line of A–B is an uncontrollable timeline characterized by three degree of arousal in <u>Figure 3</u>. Moments of confusion constitutes the felt unfamiliar, a phase in which we are not sure about phenomena facing us, and we need to enhance sensemaking efforts to gain a new meaning. Along the line C-D and Irwin's six stages we will find magic moments between the stages formful – formal – formalized. As Weick describes it, it is between those two stages (before arriving at the formalized) that we have the opportunity to reverse material we as zealous designers might be about to turn into dangerous design. Both the magic moments and moments of confusion are infused with a feeling of uncertainty. While moments of confusion have got the amber traffic colour, the magic moments are created by the perceived quality of handrails, which will differ from person to person. Some will perceive vague handrails with uncertainty while others relaxedness and joy.

Through the deconstruction process – the move from A towards B, we can explore the new deliberately; if we do not, we risk being hit by it if our tools and designs have become dangerous, leading to the collapse of sensemaking – the orange area – or perhaps even further on to a cosmology episode, the red area. Having faced reality, stimuli and perceptions (the B-C line), the process moves back towards D and the A-D line. In the reverse direction (C-D), new handrails are built as we make sense of the new, and we arrive at a new platform of meaning (A^1), and/or a new product or service (D^1). A and D influence each other and shape our identity as individuals and organizations. If our tools are too fixed, it will be difficult to loosen them up and deconstruct the familiar, and thus the too fixed taken for granted ideas of the world or tools will act as barriers for embracing the new. Simultaneously, the too fixed and taken-for-granted risk leading us to damaging events.

The model, as said is of course only an attempt to create a coherent illustration of the different elements of artful change agency, and not an expression of a truth that I have 'found' during the study. However, I hope that it can contribute to a reflection on the contribution of the work, especially that of artful change agency.

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