Change Management Tools and Change Managers

Examining the Simulacra of Change

Langager Olsen, Esben

COPENHAGEN BUSINESS SCHOOL
SOLBJERG PLADS 3
DK-2000 FREDERIKSBERG
DANMARK

WWW.CBS.DK

ISSN 0906-6934

Print ISBN: 978-87-7568-133-4
Online ISBN: 978-87-7568-134-1

CHANGE MANAGEMENT TOOLS AND CHANGE MANAGERS – EXAMINING THE SIMULACRA OF CHANGE

PhD Series 40.2022

Esben Langager Olsen

CHANGE MANAGEMENT TOOLS AND CHANGE MANAGERS

EXAMINING THE SIMULACRA OF CHANGE

Department of Organization

PhD Series 40.2022

CBS COPENHAGEN BUSINESS SCHOOL
HANDELSHØJSKOLEN

Change management tools and change managers

Examining the simulacra of change

Esben Langager Olsen

Supervisors

Professor MSO, Signe Vikkelsø, Department of Organization, Copenhagen Business School

Associate Professor, José Ossandón, Department of Organization, Copenhagen Business School

Senior Researcher, Johan Simonsen Abildgaard, National Research Center for the Working Environment

Doctoral School of Organisation and Management Studies

Copenhagen Business School

Det Nationale Forskningscenter for Arbejdsmiljø

novozymes®

Esben Langager Olsen
Change management tools and change managers
Examining the simulacra of change

First edition 2022
Ph.D. Series 40.2022

ISSN 0906-6934

Print ISBN: 978-87-7568-133-4
Online ISBN: 978-87-7568-134-1

TABLE OF CONTENTS

TABLES AND FIGURES

Acknowledgments

I would like to thank everyone who has supported me in making this dissertation possible. If you do not find your name on the list, know that I am still grateful. The list would simply be too long if I mentioned all of those who have helped, inspired, challenged, entertained, distracted, and educated me during this PhD process.

Thank you, Novozymes, for inviting me to do this industrial PhD and for taking me onboard your Lean journey. Special thanks to Jes Andersen, who started the project with me, and Thomas Olsen, who saw it to its completion. Thank you to all the Lean partners and Lean anchors with whom I had the pleasure of working. This goes to all involved regions. You have been a delightful company, and I have learned a lot from our discussions. Thank you to everyone I had the pleasure of collaborating with in the line of business, particularly the two departments in Bagsværd, where I spent the most time: Granulation and Supply Chain Operations. Thank you for doing all the interviews, going on gemba walks, for participating in tool testing, for the many open discussions on Lean implementation, and for not holding back on your repertoire of sinister jokes. I appreciate your curiosity, your willingness to express your doubt, and your willingness to explore it in discussions with me. Unfortunately, I have been able to include only a small fraction of the data I would have liked. There is much more to this story than the current format allows. I wish you the best of luck with your mission of making the world a better place with enzymes.

A huge thank you to Workz. Thank you for always having a door open and making me feel at home at your headquarters. Thank you for all the invitations to your special events and for providing me with insights into the arts of game creation. I would especially like to thank Svend Ask Larsen for taking the time to chat and participate in developing our tool. Thank you, all of you, for being so open to our analyses and critical questions. It is refreshing to encounter a consultancy so eager to engage in critical self-reflection.

Special thanks to the Danish National Research Centre for the Working Environment for allowing me to keep an office and providing me with data access throughout the project period. Thank you Henriette Bjørn Nielsen for supporting me in writing my grant application. Thank you, kind people of the office, for insisting on providing me with moral and intellectual support, even when I shut the door. Thank you: Thomas Clausen, Malene Friis Andersen, Jeppe Ajslev, Jeppe Møller, Iben Louise Karlsen, Johnny Dyreborg, Pete Kines, Annette Meng, Birgit Aust, Reiner Rugulies, and Sofie Østergaard. Thank you Ika Nimb, Majbritt Thorhauge Grønvad and Lene Rasmussen for supporting Johan's and my research by participating in the transcription and coding process and later in the tool development phase. A humongous thanks to Johan Simonsen Abildgaard for calling me that Christmas morning and telling me it was time to get out of consultancy and back into research. Your invitation to the Change Competency Intervention (CCI) and later encouragement to apply for a PhD have undoubtedly changed my life. Thank you for staying open and patient and following me down theoretical detours and rapid holes in the writing process. Your tireless support has been much appreciated.

Thank you, CBS, for educating me and helping me become an organizational researcher. A special thanks to Signe Vikkelsø for supervising me through the process, keeping oversight, while I struggled to find my footing. It has been a delight having someone by my side, seeing through the noise, asking those few fundamental questions, and insisting I answer before faring further down the next interesting trail. Thank you for insisting that I write something 'cool.' A success criterion that certainly made me strive higher but also caused me much frustration. Thank you José Ossandón for your careful and interested reading of my texts. You have been a great intellectual capacity, and helped me navigate complex theoretical landscapes while still giving very clear directions on where to go and how to improve my writings. I have learned a lot from working with you. Thank you, Magnus Larsson, for challenging my thinking, especially in the early stages of my process. Thank you to all the great PhD candidates, especially those from my office. Jonathan Feddersen, Ann Fugl-Meyer, Marcus Lantz, Katharina Jeschke, Ole Willers, Anders Klein, Jacob Rømer Barfod, and Kathrine Sørensen. Thank you to the 'old' PhD candidates for making my entry into IOA fun and exciting: Cecilie Kampmann, Thorben Simonsen, Maibrith Kempka, Louise Dahl Arvedsen, Frank Meier, Maria Krysfeldt and Signe Bruskin. Special thanks to Christian Dyrlund Wåhlin-Jacobsen for taking the lead, venturing into the halls of IOA before me, and subsequently performing the role as CBS coach when I needed it the most.

Beyond CBS, I would like to thank Espen Aarseth for attending my WIP, challenging me on my thoughts about games, and inviting me to attend your discussion group at ITU. Thank you, Jan Mouritsen, for giving me thorough, well-delivered, and relevant feedback. Special thanks to Fabian Muniesa for taking the time out to discuss my work, challenging me on my depth of analysis, and laying out some pointers on where I might find the next clues. You have been a great source of inspiration throughout my writing, as the dissertation shows. Unfortunately, we still have not had the opportunity to meet in person due to COVID-19. Ojalá nos veamos algún día.

A wholehearted thank you to my family, who have supported me throughout this entire process. I know that this project has taken a toll from time to time. Thank you for being so patient about it. A warm thank you to my parents and parents-in-law, for helping me take care of the boys while I was at the office typing away. I honestly could not have done it without you.

A gigantic thanks to my lovely wife, Anna. You supported and encouraged me from application to finalization. I feel blessed to have a partner who can find pleasure in having Sloterdijk read aloud while sipping wine at the beach. This makes studying a whole lot easier. Thank you also for being so disinterested most of the time, as it made it a lot easier for me to unplug and engage in other things. Thank you for taking care of practical matters while I was mentally absent. I cannot tell you how much I appreciate knowing you were there—rock solid, mostly. I hope you will enjoy reading this, knowing that you have been part of the process from start to end. After all, I read your papers, so now you owe me one. Most of all, thank you to my two boys. I dedicate this one to you. Hopefully, one day, you will read this and think it's kind of cool.

For Ask

My constant reminder of the fascinating relationship between

representation and reality

change and repetition

play and development

For Elliott

My constant reminder that life is good

a shining star

a laughing victory

a miracle unfolding

Preface

This dissertation is article-based, consisting of three articles.

Article 1: ‘The figural space of the business simulacrum: Examining an educative change management simulation’

Coauthored with Johan Simonsen Abildgaard. Accepted for publication in *Journal of Cultural Economy*.

Article 2: ‘Elevating managers: Investigating game based change management education’

Coauthored with Johan Simonsen Abildgaard. To be submitted to *Organization studies*

Article 3: ‘The epistemic uncertainty of change management tools - Overcoming resistance through framing work’

Single-authored. In review in *Journal of Change Management*, where it has undergone first revision.

1 Introduction

1.1 What is a craft, if not the mastering of its tools?

'Becoming a businessperson is a quite demanding process. […] You learn things, but, above all, you become someone else – a leader, hopefully – and this becoming is only marginally about knowing things. It is, above all, about reaching a felicitous mentality, about acquiring a disposition. It is about achieving an anthropological transformation.' (Muniesa 2014, p. 96)

It is an old story by now that managing change is important for organizations to prosper and is also a challenging task (Lewin 1947a, Coch and French 1948, Kotter 1996). However, the topic of change management has not gone out of fashion and appears as relevant today as ever. In the strategy paper for Innovation Fund Denmark 2017-2018, which co-funded this PhD project that year, 'resistance to change' was highlighted as a key barrier to acquiring the necessary technological adaptation and efficient work processes Danish companies need to keep up in global competition (Innovationsfonden 2017). This dissertation engages with this classical organizational problem. The dissertation, however, approaches the topic from a certain angle, focusing on the relationship between the change manager and the tool. This angle provides an entry point for exploring how change managers relate to resistance and other change management themes. Further, the dissertation is concerned with the becoming of the change manager. It is concerned with the performance expectations that change managers are subjected to, and what change managers do in their striving to meet the expectations. In relation to this, the dissertation is concerned with the change management tools that change managers engage with, and the tools' role in the change managers' transformations. At its core, this dissertation is concerned with the relationship between the change manager and the tool.

Why focus on tools when studying the processes of becoming? The reason for this is quite practical.

Picture a carpenter. What do you see? Do you see tools somewhere? You probably do. A hammer. A ruler. Maybe he carries a saw. What does the carpenter do? The carpenter probably uses these tools to measure and shape objects and space. Tightening screws or ensuring that the door is firmly attached to its hinges. The carpenter has a pencil too, right? Maybe the carpenter draws some sketches to plan and communicate the work that is about to be performed. Being a carpenter has to do with mastering tools, doesn't it? How did the carpenter become a carpenter? What sort of education and exercise was necessary for the carpenter to embody the expectations of the craft? Now, can you imagine a carpenter without the tools? Does that even make sense?

Okay, let's forget about the carpenter and picture instead a change manager. A change manager is someone who, in one way or the other, is responsible for managing a change in the organization. A change manager is rarely a change manager all the time, although that could be the case. Being a change manager is most often a time-bound responsibility relating to a specific task. What do you see? Do you see a colleague or a boss? Do you see someone from outside your organization? Do you see any tools? Does the change manager whip out a process chart at some point, using it to illustrate the change process? Probably. Does the change manager use graphic facilitation techniques to make the change process appear more appealing and comprehensible? Does the change manager propose approaches for measuring change progress? Does the change manager do anything to manipulate the meaning and emotions relating to the change? Does the change manager do something that makes people excited about the change? Does the change manager do something to induce a sense of urgency? How does the change manager respond to resistance? Does the change manager rely on rhetorical techniques to overcome resistance? Wonder how the change manager became a change manager. What sort of education and exercise has the person been through before acquiring the task of change manager? Now, can you imagine a change manager without the tools and techniques? Does that even make sense?

In a practical sense, the tool and the change manager are entangled, and collectively consistute the change manager as a certain type of practitioner. This dissertation is about change management tools and what they do to change management, and more specifically, those who enact change management, that is, change managers. Whereas it may be obvious that change managers use tools for their jobs, the implications of this are relatively underexplored. Although a lot has been written about change management tools, change managers and the strains of managing change, a dedicated focus on how these two actors come together seems missing. How are change management tools introduced to change managers? How does the introduction of tools influence the processes of becoming a change manager? How do change managers use change management tools? This dissertation will engage with questions such as these.

1.2 Context of the study

The examination of change management tools unfolds in the context of Lean implementation in the Danish biotech company, Novozymes. The data deployed in the dissertation have been gathered during my Industrial PhD project housed by Novozymes in the period of 2018–2021. The PhD project also draws data from an associated experimental intervention project, the CCI, conducted by the Danish National Research Center for Working Environment (NRCWE) in the period 2017–2019. The CCI invited Novozymes to be the case for an organizational intervention study, in which a change consultancy, Workz, would use game-based tools for change management education. CCI's aim was to increase the managers' change competencies and thereby strengthen the Lean implementation. During my research, I studied this specific setup for change management education and its effects. Further, I have had a dedicated focus on Novozymes' proprietary Lean tools, similarly studying their design and effects. I view both types of tools within the theoretical frame of change management. I will elaborate on this case later in the dissertation. In what follows, I present some key discussions in the change management literature that are relevant to the dissertation.

1.3 Common notions on the change manager

The change manager, often referred to as a change agent, is a common trope in the change management literature (Zaleznik 1977, Kotter 1995, Schein 2010, Huy 2011). The change manager is however not easily described as a stable uniform figure, as the image of the change manager is constantly changing. Some common notions and historical developments can be gathered though.

Classically, the role of the change manager was associated with the function of bridging the communication between one social system and another (Holland 2000). Lewin (1947a, p. 146, 1951, p. 176) used the term 'gatekeeper' to refer to the person who channels a novel element into a social system from the outside, a heuristic concept encouraging asking the question, Who determines what goes into a social system? Developed in the context of food habit interventions in American families during the second world war, this was an important consideration. Today, the most common notion of the famous change management scholar, John Kotter's (1996) dramatic narrative of change management, in which the leadership component of change management is emphasized. Different perspectives on what organizational change means can be identified across the literature (Todnem By 2005), and Kotter writes from a perspective of organizational change as episodic events predominantly led by top down processes. According to Kotter (Kotter 1995, p. 2), significant organizational change only manifest if the company is ready to replace its managers with 'real leaders,' understood as managers who are capable of promoting and steering the change to success. Real leaders, he writes, do not shy away from making daring decisions. They form coalitions within the organization to bolster the change initiative. The real leader is decisive and makes change happen in the face of complacency. In Kotter's narrative organizational change is generally framed as dangerous and unpredictable, and the organization will tend to resist its realization. A remedy exists though, as the 'the carnage' (Kotter 1996, p. 4) resulting from badly led organizational changes can be avoided if the change manager follows Kotter's 7-step model. This narrative on the change manager has been written in a form that both presents organizational change in a certain way, while also supplying a prescriptive text to the change manager telling how to plan and lead the organizational change to success.

Generally, the change manager is often described as one who leads the change by attending to the meaning making and the emotions revolving around the change (Zaleznik 1977, Bass 1990, Kotter 1996). Thus, organizational change is not merely managed, the literature insists, but is led by charismatic and engaging individuals who are able to break the organizational inertia. Kotter's (1996) famed encouragement for the change manager to create 'a sense of urgency' by establishing a burning platform, an analogy to Lewin's notion of an 'emotional stir up' (Lewin 1947a, p. 229), has traveled through the change management world and has often been used as a guiding metaphor for mobilizing organizational change. Over the years, change management literature gradually shifted its focus on emotions though, as it began developing softer connotations. Rather than merely stirring things up, the change manager was also expected to enact a sort of emotional caretaker (Beer and Nohria 2002). This meant that the change manager had to learn to recognize different types of emotional responses and act accordingly to prevent negative emotions from interfering with the organizational change (Maurer 1996, Huy 2011, Goleman 2013). Change managers were now expected to be solution-oriented rather than problem-oriented to lubricate the change process (Whitney and Cooperrider 2005). Also Kotter joined this turn towards softer change management in his later writings, as he reformulated his encouragement, noting that it was not about scarring people with 'a burning platform' but to motivate them authentically by establishing a 'burning desire' (Kotter 2014, pp. 139–140). Note that there is some historical circularity here. This softer version of change management resonated well with the classical change management literature, which advocated democratic and participatory methods for managing organizational change, a counterargument against Tayloristic management (Taylor 1911, Coch and French 1948, Lewin 1951, Trist 1981). In a similar fashion, the softer change management arose as a counter argument against fear driven top down change management approaches.

As noted, besides debating on hard versus soft approaches to organizational change, change management literature also discusses the different types of changes and their implications for the ideal change manager. Although the common notion of organizational as episodic and abnormal events stands strong (Kotter 1996) counter-narratives exists. Through the writings of notable change management scholars such as Weick (1969, p. 995), the notion 'that change is continuous' has been brewing for decades. It would come to be used to challenge Kotter's (1996) narrative by its highlighting of organizations' inherent instability. Rather than destabilizing the organization, change managers should consider how to stabilize it, and steer the inherent continuous changes in a desirable direction. Nested in such arguments, continuously changing organizations was promoted as a better framework for evaluating and describing organizational change (Weick and Quinn 1999). Further, it has been pointed out that the sheer complexity of organizational change makes it an illusion to assume that it can be steered in any meaningful way by an individual change manager (Uhl-Bien *et al.* 2007).

Regardless of the theoretical positioning of change management, the change manager has developed into somewhat of a mythical figure in the common notions of change management—a messiah who transforms and converts the organization for the better (Spoelstra 2016). The consultancy industry has proven ready to exploit this narrative of change management to increase their sales of change management education. McKinsey & Company for instance tell their clients that 'The role of the change agent is among the most important, and difficult, in any lean-management transformation' and stresses that this person should have both know-how and charisma to succeed (Hammer 2017, p. 1). Further, they stress that the 'poaching' that the change agent is subjected to brings about a need for ongoing professional development. They write that the change manager needs 'An explicit "learning ladder" with a detailed program' (Hammer 2017, p. 6 quotes as in original). Following this kind of thinking, a true change manager is not just a trait of the personality; it is something a person becomes through adequate guidance, education, and experience. Or pushed further in the rhetoric of leadership development literature, the true change manager is 'discovered' in the self through 'reflection' (Avolio 2004, p. 36).

Yet, locating and pinning down the nature of the good change manager competency is a slippery task. The tendency of abstracting organizational change, as if a uniform phenomenon risk reducing practitioners' and academics' sensitivity to the specifics of actual organizational changes (du Gay and Vikkelsø 2012) and tend to give rise to generalized misconceptions on what change managers, and managers in general, actually do (Sveningsson and Larsson 2006, Larsson and Lundholm 2013). Considering such cautionary reminders, it only seems more relevant to inquire into the tools that participate establishing, challenging and reaffirming the common notions on change management.

1.4 Three established perspectives on change management tools

In this section, I present an overview of change management perspectives to establish the existence of different positions on what makes a change management tool. This is relevant for further contextualizing the different manifestations of tools and change management ideals and helps answer the empirical question of what a change management tool is.

So, what is a change management tool? The answer to this question should be straightforward, right? However, there is more confusion about this matter than is typically recognized. I experienced a vivid illustration of this at a meeting with Workz at their headquarters, as I was giving a presentation on our preliminary findings. 'What exactly do they consider a tool?' a game designer asked me. Workz specializes in providing board game-inspired solutions to educate private and public organizations on business matters, such as change management, stakeholder management, remote team management, and project management. Workz uses its tools and associated techniques to help facilitate change processes for private and public organizations. As such, Workz is an expert in change management tools. How can a tool developer ask what a tool is? The academic literature however confirms that there is confusion and disagreements in regards to what counts as a tool (Hughes 2007), which turns the question of, what a tool is, into a question of perspective. What the consultant was pursuing, of course, was an answer to the question on; what business organizations consider tools. In a similar vain, what needs to be considered here is; what makes a tool and for whom? One way of going about such a question is to consider the different kinds of tools that tie in with different change management perspectives. One commonly accepted way of grouping the most pronounced practical approaches to organizational change into the three perspectives of planned, emergent or contingent change (Todnem By 2005). Below, I will use this grouping in presenting different takes on change management tools.

The perspective of planned change is usually identified with Kurt Lewin (1951), who has become a sort of historical figure in the literature, and whose contributions still receive much academic attention. Lewin made groundbreaking contributions to the social sciences, combining gestalt theory, statistical methods from the natural sciences and economics, and a passion for democracy, a mix which would come to have a significant impact on his academic contributions (Lewin 1945, Lezaun and Calvillo 2014, Cummings *et al.* 2016). Though planned change from the start was primarily linked to preoccupations with resolving social conflicts and facilitating group based personal learning, the planned change perspective became mainly associated with organizational effectiveness (Burnes 2004a, p. 279). Beer and Nohria (2002) sums up the planned change perspective as having to do with 'harder' top-down change processes driven through formal structures, programmatic in nature and led by incentive systems and knowledgeable external consultants. This rendering of planned change is far from Lewin's classical formulations, yet Lewin's work still warrants attention when examining change management tools of today as Lewin provided foundational inspiration leading to later developments.

In relation to change management tools, Lewin is probably most famous for his notion of change as three steps (CATS), implying that in order to change a social system, one must go through the steps of unfreezing, moving, and refreezing it (Lewin 1947a, pp. 34–35). This idea was presented as a paragraph in an article published the year of Lewin's death, and was really just a minor comment rather than a main contribution. The notion had no accompanying illustrations, as did many of Lewin's other models and ideas. Interestingly, and relevant to this dissertation, the greatest impact of this article would be the short metaphorizing change model, rather than the lengthy theoretical and methodological elaborations (Cummings *et al.* 2016). In a way, the model would come to take a life of its own, and become an identifier for change management as such. The CATS model inspires many models for planned organizational change. Rosenbaum *et al.* (2018) identified 13 different commonly used models in circulation emulating the CATS model. The success of the n-step models contributed to Lewin becoming associated with top-down change management approaches and ideas of organizational disruption—that is, hard change management characterized by dramatic or violent unfreezing. Despite Lewin's deep concerns about authoritarian governance and his vocal promotion of democratic and participatory organization styles, his name came to be associated with a top-down approach to change management (Burnes 2004b, 2004c), and Kotter's adaptation of Lewin's model would incline critics to cluster the two together (Cummings *et al.* 2016).

The perspective of emergent change challenged the perspective of planned change. Scholars of the emergent perspective have highlighted the complexity and unpredictability of organizational change (Weick 1969, Quinn 1989). The scholars were inspired by ideas such as Bateson's (1972a) notion of cybernetics and the Deleuzian notion of the rhizome (Deleuze and Guattari 1980–1987, Chia 1999). From the perspective of change as emergent further distinctions have been suggested, for instance between the strategically driven 'continuous' changes and 'incremental' bottom-up changes (Todnem By 2005). According to the emergent perspective, managers cannot meaningfully plan organizational change prior to execution, as the change will evolve in unforeseeable ways and therefore should not be overly controlled but rather attended to as an ongoing process. Hence, organizational change requires ongoing adjustments rather than well-thought-through plans. Therefore, what change management calls for is primarily managers with the capacity to listen to and understand what different parts of the organization need at various points in the change process (Stacey 2002). This perspective led to a direct rejection of generic n-step models and a call for sensitivity to organizational change as an emergent process (Chia 1999, p. 211). Attempting to demonstrate the applicability of the emergent perspective in praxis, Shaw (1997) described an intervention starting from the premise of not pretending to know what the organization needed. Instead, the consultants in the study investigated the organization's "shadow system," the informal gossip and chatter in the organization, by talking to the organizational members in different ways and making organizational members across hierarchies and divisions talk to each other. Shaw stated: 'Our "tools" in this work were narratives – the stories people told themselves and one another about how "things really happened"' (Shaw 1997, p. 244 quotation marks in original). In this case, the tool's materiality evaporates. Instead, Shaw described the tool as the intangible effects coming from human interaction. Still, tangible tools are not completely absent from the emergent change perspective. Linked with the notion of sensemaking (Weick *et al.* 2005), the change management literature contains examples in which conversational techniques have been translated into workshop standards, tools for structuring explorative conversations on the organization's tasks and its ensuing needs for change (Ala-Laurinaho *et al.* 2017).

In an attempt to bridge the emergent and planned approaches to organizational change, Dunphy and Stace (1988) proposed a contingency perspective on change management,insisting that both perspectives were relevant—just not at the same time. According to contingency theory, the success or failure of a change management initiative is dependent on contingent factors—namely, the type and size of the change, change management behaviors, and the change manager's formal power. Sensitivity to these contingencies should guide the change management approach that a manager chooses to follow. Whatever pet theory the manager might have should not determine his or her approach to managing change. The determinant should be the current contingent situation. Contingency theory inspired change management tools such as the Dunphy/Stace change matrix (Dunphy and Stace 1993), a four-by-four matrix model illustrating how to assess the three contingent dimensions. Contingency theory also inspired the popular situational leadership model (Hersey *et al.* 1979), which has become a trademarked tool to help managers assess their leadership behavior and change situations to guide their actions (Blanchard 2007). Critics have, however, raised the issue that in an attempt to move beyond the "one best way" approach, Dunphy and Stace produced a new "one best way," locking the practitioner into new preset configurations of how to conduct change management (Burnes 1996).

In the world of change management practice, standard configurations of tools tend to merge and become integrated, forming marketable products. As of today, the market is not short of tools to help practitioners manage change. A look at Boston Consulting Group's (2021) "proprietary suite of change management tools" reveals no fewer than 10 categories that include various sorts of assessment tools, skill development schemes, goal-setting methods, and tools for progress monitoring. Similarly, McKinsey & Company (2021), house of the famous 7S Framework (Waterman and Peters 1982), offers both a "standard tool kit" and fitted solutions for change management. In a meta-review of reported implementation techniques used in health care, Moussa *et al.* (2019) identified 51 different categories of change facilitation techniques, each covering different examples of change management techniques and tools. It appears that there is truly no "one best way" of doing change management; there are many.

The core objective of change management research is to explore what organizational change is, distinguish good practices from bad practices, and aid practitioners in managing change as efficiently as possible. Yet, the current review of tools in practice and academia reveals a lacking consensus on what a change management tool is (Dunphy and Stace 1993, Shaw 1997, Cummings *et al.* 2016, Ala-Laurinaho *et al.* 2017, Hansen and Clausen 2017, Elmholdt *et al.* 2018, Rosenbaum *et al.* 2018, Moussa *et al.* 2019, Boston Consulting Group 2021, McKinsey 2021). This help explain the Workz consultant's question. The meaning of the change management tool is heterogeneous, and the literature tends to use the word interchangeably with words such as technique and technology. Considering this problem of definition, Hughes (2007) suggested eight questions that can help determine and categorize a given change management tool. The questions are as follows: Is the tool a stand-alone application or an integrated approach? How popular is the tool? How satisfied have users been with the tool? To which level of the organization is the tool applicable? Does the tool seek to diagnose a change problem? Does the tool seek to inform a change intervention? Does the tool require high or low levels of control? Does the tool seek to deliver change at a high or low speed? The existence of a categorization technique such as this speaks to the fact that change management tools come in many shapes and forms.

As a way of coming to terms with the heterogeneity of change management and its various manifestation in models, tools, theories, and perspectives, applying a network metaphor seems reasonable. A network metaphor connotes a connected but dispersed set of social and material elements (Latour 2017), thus the change management network refers to the various tools, techniques, texts and practitioners appearing in change management praxis. The short run-through of some central perspectives nested in the broader change management network, presented above, provides initial impressions of the different perspective and ways of thinking about change management that have led to the change management tools we have become accustomed to. I could add additional perspectives to the list above[1], but for now, we will leave it at this, as the point is to show the breadth of the tools rather than provide a conclusive list.

[1] For instance, organizational change as learning is another significant perspective that could have been mentioned in this context (Lave and Wenger 1991, Beer 2002, Argyris 2004).

Although change management tools seem to function in various ways, a common function of change management tools is to present, through visualizations and metaphors, and prescribe suitable actions. Surveying change management tools reveals that change management tools are, tangible and intangible objects and practices, used to shape how change managers envision, conceptualize, and practically address the change management discipline. Change management tools feed change managers with norms, prescriptions, and more or less abstract images of what is central to organizational change. A change management tool is something that impinges on the fundamental ideas relating to organizational change and the practical work that revolves around changing things in organizations.

1.5 Change management tools and their operations

In this section, I present relevant parts of the literature on the operations and consequences of change management tools. Obviously, a general answer to this broad question is difficult to establish due to the heterogeneity of the tools. Establishing consistent facts on organizational interventions is challenging. Yet, the question needs to be addressed, as the dissertation is fundamentally concerned with the effects of change management tools.

Change management tools are often accompanied by grand claims about the tools' effects on business operations. Beer (2002), for instance, promoted his tool, Organizational Fitness Profiling, by stating that a company doubled its sales and quadrupled its profitability after having used the tool. Kotter (1996) promoted his eight-step model by issuing the warning that 70% of all organizational changes fail, implying that his eight steps would help companies avoid failure. Continuous improvements, as promoted in the Lean framework, are said to bring about a 50% to 70% increase in productivity (Womack *et al.* 1990). Unfortunately, it is not easy to find consistent empirical confirmation of any of these grand claims. Beer cannot prove that the company's success was actually attributable to his tool, as he has no experimental setup through which to compare the tool's use and business as usual. Kotter's (1996) claim regarding the 70% failure rate has been found difficult to prove (Hughes 2011), and scholars have not been able to prove that his eight-step model actually works as intended or that it should be a general recommendation (Appelbaum *et al.* 2012). The proof of the efficacy of Lean is mostly anecdotal and originates from the literature that also promotes it (Womack *et al.* 1990, Womack and Jones 2003). Meta-reviews following peer-review standards have not found empirical proof to warrant the claim that Lean has a general positive effect on companies' competitive advantage (Arlbjørn and Freytag 2013). Hence, research on the general measurable effects of change management tools on performance and the bottom line is quite disappointing. However, if we lower the bar of what we expect from change management tools, we find some humbler indications, which we could use to speculate on eventual positive effects. Abildgaard *et al.* (2018), for instance, found modest, but statistically significant, effects on employees' experience of job insecurity from an intervention that deployed tools to help workers and managers assess and handle the detrimental effects of a reorganization related to downsizing. Others have found quantitative support for utilizing solution-focused rather than problem-focused questions in workshops aimed at decreasing students' procrastination behaviors, which helped them elicit and sustain desirable change behaviors (Endrejat *et al.* 2020). Hence, there are indications that some change management tools and change interventions at least do not make matters worse in business organizations when used appropriately (Semmer 2003).

Looking beyond quantitative studies, another way of becoming aware of what change management tools do is to investigate them through qualitative analyses. In general, the effects of organizational interventions are difficult to measure as organizations are rather unstable entities, making cause-and-effect claims difficult to assert (Olsen *et al.* 2008). When trying to grasp what tools actually do in organizations, it can help abandon the quantified aggregates and simply examine the organizational practice. Case studies often present the most suitable approach to investigating social and organizational phenomena as they allow the researcher to explore how change processes unfold in practice, providing novel grounds for theorizing (Flyvbjerg 2006). Qualitative case studies have already delivered good insights into what change management tools do and some interesting perspectives on their implications for change management practice.

For instance, case studies have revealed that actors seldom adopt change management tools without some degree of resistance, often in the form of critical questioning of the tool. The potential of change management tools depends on the ways in which users and facilitators make sense of them, as they find ways of using or rejecting them. Several studies have already shown this to be true in relation to the implementation of Lean tools (De Cock 1998, Langstrand and Elg 2012, Hauge 2016). Sometimes, resistance to Lean is tied to workers' fear of eventually losing their jobs (Hansen and Clausen 2017). However, even when change management tools are framed as strictly aiming to enhance workers' own work environments through participatory workshops, organizational actors may still resist using the presented tools (Olsen *et al.* 2020). Such insights underscore the notion that the performance effects of change management tools are far from fixed. There are no inherently good or bad tools. Rather, the value of change management tools seems to depend on *how* the organization makes sense of them and whether they find ways of translating the tools to fit local needs (Andersen and Røvik 2015). It seems clear that tools derive their significance from the practices in which they participate. It follows that if we want a more realistic understanding of the effects of change management tools on organizational operations, we need to study them in their natural habitat of practice.

1.6 Studying change management tools in practice

In the following, I will cover contributions from studies of organizational practice that have helped the organizational literature gain insights into the actual implications of tool use. This section will attach the dissertation's discussions and contributions to the broader organizational literature and clarify how the dissertation situates itself in current debates in organization studies. I will highlight two themes in this regard. One relates to tool–user hybridity. The other relates to the tools' function in representing organizational reality.

However, the two perspectives on this partly overlap. I suggest that the perspective on practice and the perspective on performativity are appropriate to address the problems through concepts and theories that acknowledge hybrid relations between the social and the material when studying change management tools in use.

The study of practice is a classical approach in organizational research (Du Gay and Vikkelsø 2017, pp. 30–50). However, throughout history, different forms of detachments between theorization and practice occurred, which led to a counter movement of bringing the practice world of work and organizing back into scholarly theorization of organizations (Barley and Kunda 2001). Thus, studying organizational practice is not a new idea or approach. Rather, it could be considered a retro movement in organization studies. Regardless, some have coined the study of organizational practice a new and noticeable 'turn' in the organizational literature (Schatzki *et al.* 2001), which has bred more or less discrete research streams, such as the stream of 'strategy-as-practice' (Jarzabkowski and Wilson 2006, Whittington 2006). Today, a wealth of different studies of organizational practice exist, which draw on a polyphony of theoretical inspirations, and provide distinct and insightful contributions to the study of organizations (Suchman 1987–2007, Tellioğlu and Wagner 2001, Mol 2002, Hauge 2018).

The study of organizational practice has helped shed light on the fact that 'different users may employ the same tool not only in different ways but for different reasons' (Spee and Jarzabkowski 2009, p. 223). Overall, tool users tend to be negligent of dogmatic prescriptions of tool use and often still find ways to make use of the tools (Jarzabkowski and Wilson 2006, p. 350). Thus, tool users use tools flexibly. Consider, for instance, the use of the PowerPoint tool in strategy processes. PowerPoint not only expresses information of, for instance, strategic decisions, as one might suspect. Rather, it is integral to the strategizing process itself (Kaplan 2011). Actors use PowerPoint to order their thoughts and establish intermediary consensus. They also tactically use PowerPoint to manipulate decision-making processes by arranging the slide decks in such a way that their preferred ideas become more attractive and favorable. Whereas a shallow critique of PowerPoint may argue that it is fundamentally a waste of time in organizations, studying it in practice reveals that PowerPoint has more functions than meets the eye. Beyond the question of performance enhancement (understood as an increased input-output ratio), there appears to be a theme of creative play associated with the way tools are used in practice, which enables actors to organize thought, manipulate decision-making, and organize collective action.

Spee and Jarzabkowski (2009) highlighted that it is very much practical concerns, rather than idealized theoretical concerns, that guide the way tool users in organizations relate to their tools. In concrete terms, tool users tend to prefer tools that are designed with simplicity in mind and that do not rely on, for instance, sophisticated mathematics. Examples of these simple tools that do not require specialist knowledge are the strengths, weaknesses, opportunities, threats (SWOT) analysis, the BCG matrix, or Porter's five strengths. The authors further noted three aspects of use concerning these tools. First, these tools are considered flexible, as they are easy to grasp and make use of in conversations. Second, simple tools may be easier to remember. Third, users make use of popular tools because they are already well known and, therefore, come with a higher degree of legitimacy built into them. Hence, we should expect that accessibility and ease of use are some of the most prominent traits of change management tools, an observation that helps explain why Lewin's change as a three-step model has attracted such a large audience. The model is both astoundingly simple and invites the user to adapt its use to almost all situations connoting organizational change. In contemplation of the tendency of practitioners' creative use of tools, Jarzabkowski and Kaplan (2015) noted that tools invite certain types of usage, but that the eventual use is a product of the interaction between the tools' affordances and the agency of the user. Thus, when considering tools in use, it appears relevant to consider the multiple ways in which the intended use of tools and their actual use align or misalign. One must expect this to generate both unpredicted outcomes and the foundation for conflicts regarding the question of how a given tool is to be interpreted and put to use.

A general trait of change management tools is the use of representations, as they tend to convey an image of organizational change. Consider, for instance, visualization and metaphorical conceptualization of organizational change as a step-based unidirectional process (Cummings *et al.* 2016) or the multiple icons and figures used in Lean, designed as a pragmatic 'provocative suggestion' (Rother and Shook 2003, p. 74) for how to see and communicate the organization's need for change. Practice studies open up critical reflections on the implications of this. The most common perception of tools is that they provide a means for making more rational decisions (March 2006). The practice perspective presents caveats to this discussion, highlighting that users may use an image of rationality primarily as a way of manipulating decision-making processes and furthering the tool users' own agenda (Jarzabkowski and Kaplan 2015).

The ambition of studying tools as practice has a bit of a renaissance through streams like strategy-as-practice (Jarzabkowski and Kaplan 2008, 2015, Kaplan 2011) and studies linked to the emergent perspective (Ford 2008, Hernes *et al.* 2015). Particularly, the notion that tools must be studied in action has been raised and continuous to encourage further research. Rather than seeing tools as having predefined functions and performance effects, scholars have found that the function of tools is spontaneously enacted and affected following the users' situated needs.

Despite the relevant contributions from strategy-as-practice and the emergent perspective, the two perspectives present some limitations for continuing the examination and theoretical discussion on tools and change managers. In the following sections I will elaborate on this point, and argue that a performative perspective is a more suitable alternative.

1.7 The stance of antirepresentationalism, a barrier for the emergent perspective

Though the emergent perspective offers a promising point for inquiry, there seems to be an embedded barrier in the perspective, if the goal is to conduct an agnostic inquiry of change management tools. The emergent perspective tends to position itself in opposition to the perspective of planned change, a theoretical positioning, often accompanied by a notion of antirepresentationalism.

As Burnes wrote (2004d, p. 890), '[…]there has been a growing chorus of disapproval of planned change over the last 20 years, and increasing support for a more emergent view of change.' A reason for this is that the up and coming emergent perspective has been discrediting the classical planned change perspective as a way of justifying its own existence. Lewin's (1951, p. 228) 'changing as three steps' model has become a favored figure to shoot at when deploying the argument that organizations are in flux and that approaches that build on notions of emergence are more appropriate to cater to current organizational problems (Chia 1996, Weick and Quinn 1999, Stacey 2002, Tsoukas and Chia 2002).

The notion of antirepresentationalism comes from Rorty's (1991), a neopragmatist who found inspiration in authors such as Dewey (Dewey 1938) and Peirce (1991) to formulate his theories. Antirepresentationalism is the claim on epistemology that knowledge does not mirror reality. Instead, knowledge in all its manifestations, including visual representations, should be thought of as tools. Knowledge is useful and practical. However, Rorty stressed that knowledge tends to be deceptive, especially if one treats it as a mirror of reality. Drawing on Wittgenstin (1953), Rorty (1991) suggested thinking of knowledge as 'language games' embedded in social practice. This leads to dynamic epistemological plurality. Each proposition, or descriptive capacity, makes new knowledge accessible. Wittgenstein's (1922, p. 74 italics in original) dictum, '*The limits of my language* mean the limits of my world', is in play here.

By importing the notion of antirepresentationalism to the emergent perspective (Chia 1995, Weick 1999), the emergent perspective found a way to lever their critique of the planned change perspective and Lewin, especially the image of planned change as three steps and the metaphorical images of equilibrium and disequilibrium (Chia 1999, Tsoukas and Chia 2002). The most thorough introduction to Rorty's philosophy, and the clearest import of the notion to organization studies is the one delivered in a paper by Tsoukas (1998). In the paper, Tsoukas (1998) faithfully presents Rorty's ideas but moves on to use the notion of antirepresentationalism as an occasion for attacking Weberian descriptions of organizations, as illustrated below:

> 'While for representationalists our beliefs contaminate our descriptions, and should be purged as much as possible so that the world may be faithfully reflected in our descriptions, for Rorty our particular beliefs, concepts, and descriptions (in short: our languages) are precisely what makes the causal powers of the world work for us in one particular way rather than in another.

> We are subjected to the causal forces of the natural and social world, but what we make of them depends on how we describe them and, thus, what stories we choose to tell. […] In the 16th century, for example, the Aristotelian vocabulary got in the way of the mathematized vocabulary that was being developed. Similarly, the Weberian descriptions of organization with their insistence on the separation of means from ends, of facts from values, and the exaltation of managerial expertise, are increasingly getting in the way of an emerging new vocabulary which puts emphasis on intersubjective values, holistic understanding, dispersion of knowledge and expertise, spontaneous initiative, and continuous innovation.' (Tsoukas 1998, pp. 788–789)

The example eloquently shows how Tsoukas uses the notion of antirepresentationalism to unrelatedly devalue other perspectives and promote his own perspective, as he notes that Weberian descriptions (or language games) are 'increasingly in the way' for alternative language games, which he seems to favor. However, the argument comes off as a bit of stretch. Even when searching for it, there is no obvious coupling between Rorty's antirepresentationalism and a criticism of Weberian descriptions, and Rorty never really discussed Weber or Weberian descriptions. Dewey, the exemplary theoretical influencer of Rorty, was no anti-Weberian either (Pedersen and Dunne 2020)[2]. Conflating antirepresentationalism with his own biases on organizational descriptions, Tsoukas sidetracked his own discussion. Eventually, he used Rorty's theorization to devalue one type of language and promote his own favored language games.

Although it is relevant to remember Kuhn's (1962–1970) idea of paradigmatic battling here, in the context of Tsoukas' (1998) text, it is also important to note that Tsoukas' argumentation is misplaced. It both misses the point he was promoting, and invites to an unnecessary tug of war. Indeed, I could argue the opposite of Tsoukas' stance—that it is the Weberian description of the organization that is under threat by emerging perspectives and fads that 'are increasingly getting in the way' (Tsoukas 1998, p. 789), and that this is the real problem which should be attended (du Gay and Lopdrup-Hjorth 2016, Du Gay and Vikkelsø 2017). Yet, the point here is, of course, not to defend Weberian descriptions of organizations as such. Nor is it to argue for Weberian superiority over the emergent perspective. Such rhetoric, in this context, would only reproduce the argumentative error Tsoukas committed. If one follows the notion of antirepresentationalism, that organizational perspectives boil down to a sort of differing and interacting language games, the attitude should, of course, be to recognize them symmetrically, at least within the bounds of a text such as the one Tsoukas (1998) wrote, which had the implications of antirepresentationalism as its primary interest. However, Tsoukas failed to do this.

[2] Tsoukas could have highlighted anti-Taylorism, which represents a potential interesting point in relation to antirepresentationalism but for other reasons than the one Tsoukas is pursuing (Lorino 2018, pp. 1–22).

The emergent perspective winds up with an unsatisfactory argumentation that imports interesting theory, offering a promising perspective on change management but fails to deliver on it, as it is misused to direct unwarranted critique and self-promotion. What one could have hoped for instead was that Tsoukas had used the imported idea and taken it to its radical conclusion, seeing it as a means of multiplying our understanding of organizations rather than narrowing it down.

The kind of thinking Tsoukas demonstrated above permeates the emergent perspective's critique of Lewin and planned change with a core argument that the equilibrium image of organizations and social systems is wrong and needs to be replaced by an image of emergent processes (Weick and Quinn 1999), flux (Tsoukas and Chia 2002), or the rhizome (Chia 1999). Yet, the attack on Lewin is superficial when taking into account the nuances of his actual texts. For instance, Lewin (1951, p. 199) predominantly used the of notion 'quasi-stationary equilibria,' writing clearly that 'Change and constancy are relative concepts, group life is never without change, merely differences in the amount and type of change exist'—a far cry from the caricature of him naively promoting an image of social dynamics as a sort of equilibrium structure. As Cummings *et al.* (2016) observed, it appears that Lewin's use of metaphors for change and stability were used as practical ideas useful for analyzing and planning interventions. The same goes for the change-as-three-step model which appears to have been of minor importance to Lewin; merely a practical suggestion on how 'planned social change may be thought of' (Lewin 1947b, p. 36). The practical potentials of the model, and the rest of Lewin's work for that matter, were lost on scholars of the emergent perspective though (Weick and Quinn 1999). Armed with a notion of antirepresentationalism proponents of the emergent perspective went on a mission to purge Lewin from the list of recognized descriptors of organizational change to promote their own views and practical methods.

The emergent perspective unfortunately fails on delivering a fruitful vantage point for the current inquiry as it appears too engaged with its positioning to be fit for agnostic inquiries into tools and practices motivated by other theoretical perspectives than the one they sympathize with.

1.8 Theoretical inconsistency, a barrier for strategy-as-practice

In a different fashion, the strategy-as-practice perspective also seems to pose certain barriers for the purpose of this inquiry. Regarding the strategy-as-practice tradition as such, a thorough argument has been made convincingly by Casler (2020, pp. 89–120) already, highlighting that the tradition's lack of compelling studies of actual practice, eagerness to manifest itself as a significant turn in organization studies, and inconsistent attempts to find a theoretical footing have led to a failure to contribute satisfactorily to discussions on its subject matter. Though I have found some inspiration and valuable insights from strategy-as-practice, I am overall in agreement with Casler (2020) on her points. In relation to this, I will highlight some of the specific limitations I see in relation to the study of tools. By referencing Jarzabkowski's work, I will highlight how attempts at theorizing tools have failed to deliver on the claimed objectives and how the practice studies have tended to reproduce the common understanding of the studied, rather than challenging it.

In a study of material artifacts in a reinsurance company, Jarzabkowksi and colleagues found that workers use material artifacts as a means of representation. For instance, the authors wrote that a photo creates a 'representation […] of 'what' is actually insured' (Jarzabkowski, Paul Spee, *et al.* 2013, p. 46 apostrophe in original). The authors found this pattern across different uses of materials and concluded by proposing a hierarchical taxonomy of abstraction moving from photos over spreadsheets to diagrams. They used this to construct a model of 'increasing levels of abstraction,' which they posed to describe the tool's function.

In effect, the authors engaged in platonist thinking in their analysis and constructed a theoretical model that begs critique from a performative perspective. Why is a diagram more abstract than a spreadsheet, for instance? How does a photo represent the 'actually insured'? Does a photo of a building, for instance, not hide as many properties of the estate as it reveals? One has to wonder where the cracks are in the representations performed by the studied tools. Now, a platonist stance is surely a legitimate stance to take in research. However, the authors' insisting reference to Cetina's (1999) iconic work on epistemic cultures, which certainly does not encourage naïve reproduction of platonist thinking, leaves the reader (i.e., me) uncertain of the authors' theoretical grounding. How does one relate this study to the debates to which the study attaches itself? Moreover, the practical contribution remains negligible, as one should expect natives to be already mindful of the fact that they use photos to visualize their insured objects and Excel spreadsheets to collate and represent data aggregates. The practice perspective, which could have been used to unfold surprises and inconsistencies to further our understanding of epistemic objects' actual use, turns into a smooth account emulating uncritical prescriptive literature.

Other parts of the contributions to strategy-as-practice are paradoxically survey based (Jarzabkowski, Giulietti, *et al.* 2013) or rely on strict theorization (Spee and Jarzabkowski 2009). When theorization is attempted, however, the theoretical inconsistencies obscure the contribution. Jarzabkowski and Kaplan's (2015) attempt to import Gibson's (1977) concept of 'affordance' into the study of tools illustrates this quite well. Here, the authors found inspiration in Orlikowski and Scott's (2008) promotion of sociomateriality, which is eventually a continuation of Latour's (2005) proposal of thinking of the social and material as assemblage. Jarzabkowski and Kaplan (2015), however, ended up constructing a model that separates the 'agency of the actor' (i.e., the human user) and the material affordance. As a reader, one can hope that this is merely a slip of the tongue. However, the authors use the model while describing the human–tool relationship, as human users selecting among a list of potentials of usage of the otherwise passive tool. In turn, the authors, quite directly, reproduced the duality between the social and the material, which they claimed to overcome. The authors' proof was contained in a short vignette that described how a tool user seemingly adapts a project plan to affect the company's communication around a strategic issue. This account of adaptive usage definitely illustrates the point of the authors that tool users use tools flexibly. However, the study failed to give an account of how the tools might have kicked back at the users. What surprising accounts could have appeared had the scholars taken sociomateriality seriously? Indeed, the affordance concept has potential if used to study how tools become actionable in the sociomaterial setting in which they perform (Hutchby 2001, Hauge 2016, 2018) rather than making the tools' function appear merely as an extension of the willful 'agency of [human] actors' (Jarzabkowski and Kaplan 2015, p. 539).

Summing up, the emergent perspective has arrived at a theoretical positioning which has led to an unfortunate insisting and preemptive critique of the planned change perspective and Lewin's contributions to this, which leads to closing relevant points of discussions rather than unfolding them (see Tsoukas 1998, Tsoukas and Chia 2002 for a telling example of this). Strategy-as-practice perspective has curiously failed to provide both empirical grounding and theoretical consistency (Casler 2020), which makes it difficult to apply as inspiration for the current investigation.

For me, the performative perspective has presented a way forward though. Over the years, performativity studies have taken the organizing property of tools into careful consideration and studied, for instance, inaccurate models and change management simulations, revealing that indeed, inaccuracy does not equal a lack of performativity and effectuation of change (Callon 1998a, MacKenzie 2008, Millo and MacKenzie 2009, Muniesa 2014). Rather than criticizing the inaccuracy of Lewin's model, this perspective encourages us to study the constitution of such a model in terms of its specificity and the performativity of the model once it is put to use in action, and indeed has already begun to (Lezaun and Calvillo 2014).

1.9 A performative perspective on change management tools

In the following I consider how a performative perspective can help shed even more light on the operation and consequences of change management tools. Performativity literature studies how speech acts (Austin 1962), non-human objects (Callon 1998a) and events in general (Muniesa 2014) effectuate social and material change. The performative perspective provides a theoretically grounded analytical lens for studying change management tools.

A common notion of change management tools' images of organizational change is that they somehow represent reality. A change manager, for instance, uses a timeline to show where the change is currently at and where it is headed. However, this common notion of tools is challenged when the illusion of a connection between the tool's representation of the change and a personal experience of the change collapses. The image of planned change unfolding across three clearly demarcated steps easily becomes challenged when met with the messy reality of change. Regardless of the problems that such images may run into, the performativity literature encourages an open-minded examination of the potential effects of the image's performativity.

Looking at tools from a performative perspective has helped uncover some alternative findings that help the field of study reconsider what tools actually do to those who use them and how. Hauge's (2016) studies of Lean performance boards at a Danish hospital, for instance, showed the ways in which the 'scene' of the performance board affected its ability to function. Here, the author does not see tool as a standalone object operating independently, but as something that is functionally constituted by the social and material arrangement of which it is part. Further, Hauge (2018) reminded us that a Lean performance not only represents the current state of things and needs for change. The performance board interferes with the organization's valuation of its current state and potential future. Paying attention to this, Hauge showed that performance boards tend to provoke conflict between personnel, for instance, by establishing alternative frames for valuating time and the quality of work. This goes to show that there is more to engagement with tools than flexibly finding ways of utilization, which has been the key preoccupation in the strategy-as-practice stream of literature (Jarzabkowski, Paul Spee, *et al.* 2013, Jarzabkowski and Kaplan 2015).

The performative perspective has also dealt with some core themes in change management research, but in some indirect ways, other than is usually found in the change management literature. Lezaun and Calvillo (2014) studied how Lewin arranged the experiments that he would later use in his argumentation for and descriptions of democratic leadership. This archival study presents how Lewin deliberately pursued the arrangement of different 'atmospheres' through the physical arrangement of the setting to make the children he experimented with enact democracy in miniature. The study hereby refigures Lewin, certainly in contrast to the caricature of a 'top down' change proponent, but also in contrast to those who present Lewin's experiments as facts on the social. This study reminds us that the democratic outcomes of the children were not made up, but they were certainly arranged. This notion that atmosphere is performative and can be analytically deciphered was later picked up in a study of game-based change management education, which provided an analytical perspective on the game's arrangement of leadership education and the shifts in atmosphere that occur throughout its play (Elmholdt *et al.* 2018).

The performative perspective offers an alternative approach of engaging with change management research by encouraging careful considerations of tools and people's co-constituting roles in organizational activities. With an attitude of destabilizing rather than stabilizing common narratives, it represents a promising approach for reconsidering the naturalized relationship between the change manager and the change management tool.

1.10 The dissertation's looking glass

In this dissertation, I will pursue the question of change managers and their tools through the looking glass of the performativity literature. The core reason is that it offers concepts that bridge the social aspects of interaction and becoming, and the material aspects of tools, thus taking seriously the assumption that agency is the product of an interwoven relationship between tool and user (Latour 1994, 2005). Moreover, the performativity literature engages explicitly with the theme of visualization and representation, which makes it particularly suitable to aid research into the representational aspects of tools (Latour and Woolgar 1979, Callon 1986, Latour 1986, Law 2002, Muniesa 2014). In studying the performativity of texts, inscriptions, and organizational visualizations, the performativity literature shows that there are ways of tracing and dissecting the effects of the semantics and the figurative. This is important when the goal is to consider critically the function of visualizing and metaphorizing tools in the establishment and practice of change management.

Performativity literature, with its ties to the research tradition of actor-network theory, is a well-established perspective in organization studies (Vikkelsø and Langstrup 2014). However, it is important to recognize that there are significant overlaps between the performative perspective and the strategy-as-practice perspective (Jarzabkowski and Pinch 2013) and the emergent perspective in change management (Chia 1999, Tsoukas and Chia 2002) in terms of a common interest in organizational practice, and they often find theoretical grounding in some of the same literature.

The reason for mainly taking inspiration from performativity literature and not these partly overlapping streams is motivated by the way some key theoretical developments have unfolded in the literature. Performativity literature has a rich tradition of studying and discussing the processes through which reality constructions are made and put to use for affecting said reality (Callon 1998a, Knorr Cetina 1999, Law 2002, MacKenzie 2008, Lezaun *et al.* 2013, Muniesa 2014). These studies are made with an agnostic attitude, which means that the discussions on the researched object are more focused on the philosophical and practical implications of the study rather than promoting a certain practical approach or disregarding the studied object. Contrary to this, I note that the emergent perspective has been too caught up in levering critique at the planned perspective and others to promote their own approaches and theoretical perspectives on organizational change (Tsoukas 1998, Tsoukas and Chia 2002). The emergent perspective, therefore, connotes a defense of certain ways of describing and evaluating organizations and change management, which I see as an unnecessary narrowing of the analytical perspective. The performative perspective does not do this, and has studied entities and events related to the planned change perspective on neutral grounds, which has yielded interesting findings (Lezaun and Calvillo 2014, Hansen and Clausen 2017, Elmholdt *et al.* 2018). This is not to say that the performative perspective is not critically attuned when engaging with concepts such as planned change, but it is a different kind of critical thought than is demonstrated by the emergent perspective. In performativity studies, criticality is not about 'saying things are bad' but rather about 'considering truth from all possible angles' (Muniesa 2014, pp. 127–130). In relation to the strategy-as-practice perspective, I have trouble positioning the stream within the broader theoretical landscape. Claims on furthering the theorization of tool–user hybridity, for instance, turn into a reproduction of the duality and maintaining the asymmetry between tool and person, which hybrid thinking was meant to overcome (Latour 1993, Orlikowski and Scott 2008, Jarzabkowski and Kaplan 2015).

Thus, I find it difficult to apply a strategy-as-practice perspective to my studies, with theoretical inconsistency being the main barrier. I expand on this argument in the final chapter.

Adopting a performative perspective offers a way of sidestepping some stifling native positioning wars in change management literature and look instead for the interplay of multiple and co-existing change management ideas, tools and managers. This, I hope, can allow me to not privilege one particular theoretical or normative understanding of change and change management, but put the performativity and co-constituency of tools and change managers at the center of my analyses. The performative perspective provides an approach to engaging with change management tools in a way that opens up new ways of thinking about a type of relationship that has become a naturalized part of change management practice. The various considerations highlighted up until this point led me to my research question.

As noted previously, although the theme of change management tools and managers has received attention in the literature, a dedicated focus on the interplay between the two is missing. I suggest that change management studies need further research, not just in the tool or the change manager, but in the way the tools and change managers entangle. This is important if we accept the premise that the process of becoming a change manager has to do with engaging with change management tools. This claim is a premise that does not really settle any of the challenges. However, it presents change management research with new problems, some of which I have already hinted at as having to do with local adaptation of tools, the problem of representation, and tool–user hybridity. It seems timely to examine these problems in depth. Therefore, I ask the following research question:

How do change management tools affect change managers?

I explore this question in the context of a change management endeavor in the Danish biotech company Novozymes. Over the years, Novozymes has gone through different approaches to implement and reap the gains of implementing Lean tools in the supply chain. As part of their efforts, they experimented with tool-based change management education to support their managers' change management challenges. Workz, a consultancy specializing in simulation- and game-based approaches, facilitated education. Specifically, I will examine the change management simulation, Wallbreakers. I will examine how it has been designed and what happens when it is used. Next, I will examine the Lean-based change management tool, The Rapid Improvement Event (RIE), to understand what change managers do to make change management tools operate in practice.

The case enables me to explore both a tool-based attempt at developing change managers, and the actual practice in which change management tools are used to enable organizational change. The case exemplifies how change management tools affect change managers' conceptions of organizational change and what change management tools do to organizational change. I examine the two change management tools through three papers in which I provide qualitative analyses of the change management tools just mentioned (see Table 1 for details). Common to both types of tools is that they operate through means of representations, and rule-based purposes drive the orchestration of social action contained in space and time. Thus, although the tools may appear immediately quite different, they share core traits that make them resonate, which provides grounds for a more general discussion of change management tools related to this specificity to unfold.

Title	*Research question/ problem*	*Argumentation*	*Concept*	*Methods*	*Journal*
The figural space of the business simulacrum: *Examining an educative change management simulation*	How can business simulacra's provocation of human subjects be theorized?	This study departs from Muniesa's notion that business simulacra effectuate change through means of provocation. This study examines what provocation entails in the case of Wallbreakers. By disassembling Wallbreakers and tracing its design process, the analysis shows how the simulation's figures of change management have come to be, and how the designer has coupled the game's figures of change management with ludic and theatrical elements to ensure engagement. Through Lyotard's (1971–2011) conceptualization of figurality, the article suggests considering the effects of business simulacra as unfolding in the "figural space," a phenomenological event that entangles the visual figure, the perceivers' unconscious and discourse.	The figural	A close reading of the design of Wallbreakers. It also draws on an interview with a main designer of Wallbreakers and a few observations of the simulation in action. The analysis is mainly inspired by Lyotard's (1971–2011) theorization of figurality	Journal of Cultural Economy (Published)
Elevating managers- Investigating the performativity of simulacra in management education	How is open-ended and structure balanced in a transformative leadership education program? and what form of change does this balancing enable?	The article studies how a transformative game based education makes change managers reconsider their obligations and criteria of success. Drawing on the concepts of liminality (Turner 1969) and elevation (Sloterdijk 2009–2013) the article considers the mechanisms of detaching change managers from normalcy. The article shows how the game balances open-ended reflexivity techniques with structuring mechanics to channel discussions towards prefigured aims. This enables occasions for experiencing an elevation of change management competencies while suggesting the need for further improvement. In this, change managers are encouraged to reflect themselves in the image of a loosely drawn figure of the exemplary change manager enabling both a striving for higher aims and a humbling recognition of the gaps between experienced reality and ideals.	Elevation	Tracing managers' interaction with Wallbreakers through observations, video recordings and interviews.	Organization studies (To be re-submitted)
The epistemic uncertainty of change management tools *Overcoming resistance through framing work*	How do change managers overcome resistance to change management tools?	The article studies what change managers do to overcome resistance to change management tools by examining change management tools in action. With inspiration from Goffman's (1974) frame analysis the study shows how change managers perform framing work to preserve the tools' functionality when met with resistance. The article show how resistance to change management tools tie in with a certain epistemic uncertainty manifesting as confusion, mockery, disbelief and general reluctance to engage with the tools. The article shows how framing work can be a remedy to this, which does not necessarily settle the underlying dispute, but can be sufficient for the tools to operate as intended.	Framing	Ethnographic study inspired by frame analysis based on observations, photos and audio recordings.	Journal of Change Management (In review, 1st revision)

Table 1 Dissertation articles

2 Analytical concepts

2.1 Conceptual framework

In this chapter, I present the theories and concepts that informed my empirical analyses. Rather than adopting a single theoretical lens, I have found it useful to combine different theoretical concepts from within the performativity literature that help explore and unfold central aspects of my RQ. In combination, this makes up my conceptual framework. Elaborating on this, I begin this chapter by outlining what has been called "the performative turn" in the social sciences. Then I will present the core concept of "simulacrum", and add three concepts that supplement and take this concept and my performative approach further: "the figural," "framing," and "elevation."

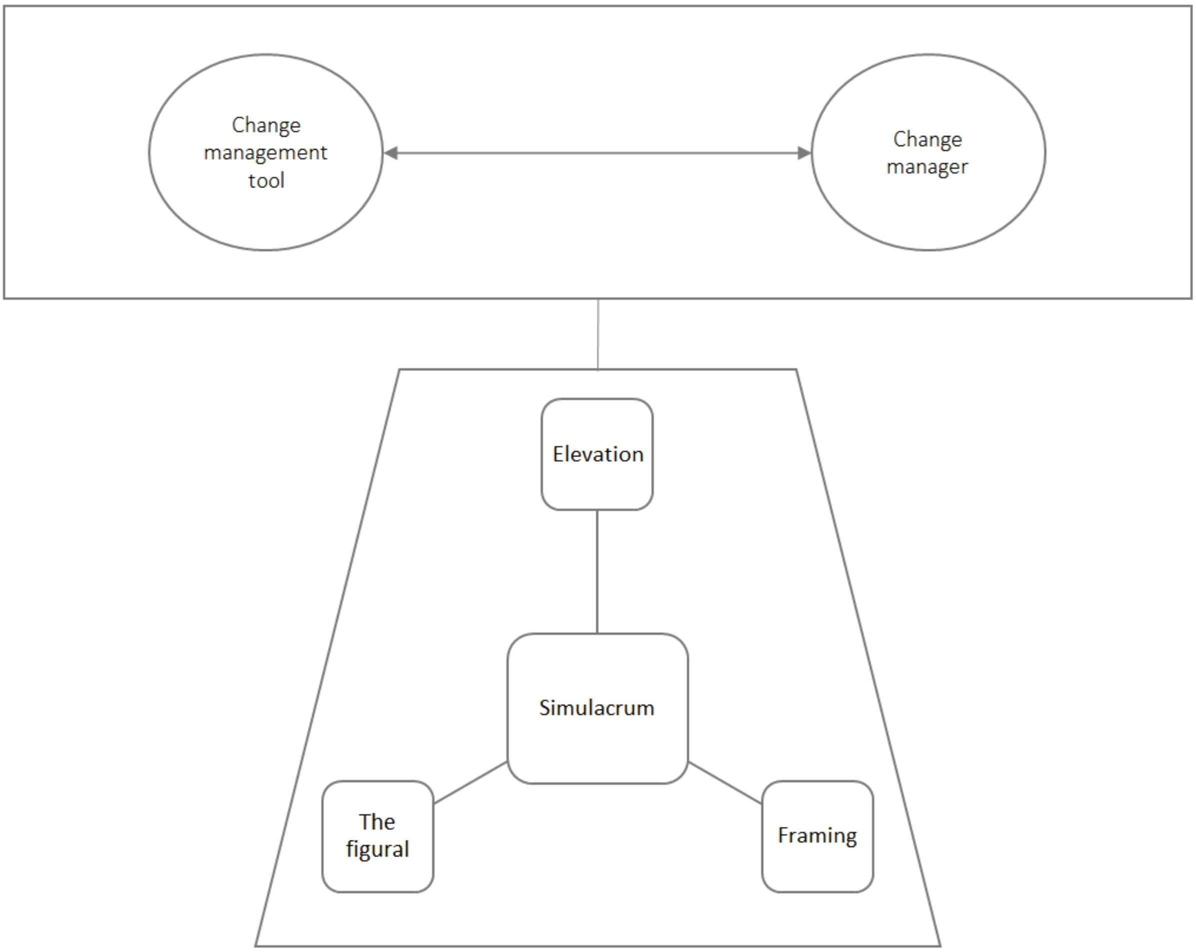


Figure 1 Illustration of the conceptual framework tied to the subject matter.

2.2 The performative turn

The performative perspective is instantiated through core authorships such as Austin (1962), Lyotard (1979–1984), Latour (1984), Callon (1998a), Butler (1999), and MacKenzie (2008). I particularly engage with specific corners of the performativity literature, namely some key developments in the literature made by Muniesa (2014). Moreover, I draw inspiration from what some would consider the fringes of canonical performativity literature (Gond *et al.* 2016). Specifically, I engage with Goffman's (1972) work on frame analysis, Sloterdijk's (2013) work on anthropotechniques, and some of Lyotard's (1971–2011) early and less appreciated work on phenomenology and language.

Similar to the practice turn mentioned previously, Muniesa (2014, p. 7) identified a 'performative turn in the social sciences.' However, he did this with some reluctance, as he did not mean to imply an 'epochal shift or U-turn.' Rather, the performative turn marks a conjunction of influences from a set of key contributions in the social sciences and the subsequent theoretical developments these influences have offset. Today, performativity has come to mean many different things to different people, and thus, it has contributed to the exploration of a broad range of organizational topics (Czarniawska 2016, Gond *et al.* 2016). Therefore, when alluding to the performative turn and performativity literature in general, one has to be mindful of the fact that it refers to a rather loosely interwoven network of theoretical contributions and empirical studies.

The classical understanding of performativity descends from Austin's (1962, pp. 6-9) notion of 'performative utterances' or 'speech acts' that do things to reality rather than merely describing reality. A speech act differs from a constative utterance by being performative. For a groom, saying the words 'I do' is an utterance that performs not only a symbolic commitment but also implies a legal transaction. In other words, the utterance acts. It is the doing that the utterance effectuates that makes it performative. This notion of performativity would inspire developments in the study of the performativity of more specific areas. Callon (1998a, p. 3) used the notion of performative utterances when analyzing how markets are made by calculative agencies determining price and settling contracts, illustrating how performative utterances function in market making. This observation led to subsequent investigations of calculative non-human agents, such as the Black-Scholes-Merton model of option pricing in stock markets (Millo and MacKenzie 2009). The observation made was that such a model should not be considered a 'camera' for seeing the stock market. Rather, the model is an integral part of the stock market's 'engine,' as the model significantly affects market dynamics as market participants use it to make predictions and decisions (MacKenzie 2008). This provides an example of the profound shifts in the conceptualization of business dynamics, which the performative perspective offers.

The notion of performativity also ties with Lyotard's (1979-1984) work, where the notion of 'performative utterances' served as inspiration for an iconic study of science and knowledge production. Lyotard suggested the arrival of a postmodern condition, a consequence of the collapse of the metanarratives of capitalism and Marxism. The postmodern era is defined by a societal rejection of the idea of finite truths. Instead, knowledge becomes a means of consumption that serves the needs of industrial society.

Knowledge becomes performative, Lyotard contended, implying that it is the utility and the effects of knowledge that matter, not the inherent quality of knowledge as being more or less true to some objective reality.

The notion of performativity also ties in with actor-network theory and the associated science and technology studies (Muniesa 2015). Here, Latour (1984) brought up the notion of performativity, distinguishing the performative definition of phenomena from the ostensive definition. This was to promote the thinking of the multiple human and non-human agents that make collective action possible through their performative effects. This performative rendering of societal and organizational entities has some interesting theoretical implications, as it challenges the idea of the ostensive essence of organizational structures. Instead, the organization is seen as a dynamic performance of a social and material collective. Mainly through this adaptation of the notion of performativity, the term has come to play a substantial role in the developments of organizational research, making the notion of performativity widely referenced, and has inspired developments in both the literature streams of emergent change and to strategy-as-practice (Tsoukas and Chia 2002, Feldman and Pentland 2003, Orlikowski 2009, Kornberger and Clegg 2011, Jarzabkowski and Pinch 2013).

The current account of performativity is by no means meant to be exhaustive for the breadth of the discussion on performativity. However, it is sufficient to clarify how I see the performativity literature. I do not take a dogmatic stance on what counts as performativity literature, as some do (Gond *et al.* 2016). Instead, I use performativity literature to key a core idiom, that objects and acts can be performative in the sense that they produce effects on the network in which they participate. Consequently, descriptions, references, and representations should be considered performative agents worthy of analysis.

In what follows, I introduce the notion of the simulacrum, which is a key concept in this dissertation. The simulacrum provides a means for conceptualizing this idiom a step further.

2.3 The performative simulacrum

Commonly, when one refers to a simulacrum, what is implied is some sort of representation of something. Etymologically, the noun ”simulacrum” is derived from Latin, meaning simply ”representation”. The Latin verb ”simulare” refers to the act of making a copy of something (OED 2021) The Latin root of simulacrum ”similis” echoes in the English adjective ”similar”. In a banal sense, a simulacrum is something that simulates or represents something else. A simulacrum in the business world serves to simulate or represent something of relevance—something that is real for the business. An illustrative figure of a change process divided into three phases is a relevant example of a simulacrum of organizational change.

As a theoretical concept, the simulacrum is not new. It appeared in the ancient philosophy of Plato, among others, and was introduced to contemporary sociology by Baudrillard (1981–1994). The theorization offered by Baudrillard and Plato can be considered a somewhat mainstream take on the simulacrum, which I use as my departure for describing the performative simulacrum as an alternative. I find inspiration for this in Munisea's (2014) more recent non-platonist conceptual developments, which offer an interesting analytical perspective that fits the dissertation's approach better. In this section, I present the Baudrillardian simulacrum to demonstrate how a performative perspective on the simulacrum differs. I will present the performative simulacrum initially by referencing Muniesa's contributions to this, and then by tracing some relevant sources of inspiration of his, namely Deleuze (1968–1994, 1969–1990) and Klossowski (1963). Lastly, I will present how Muniesa (2014) made the notion of simulacrum relevant for social studies of markets and organizations.

2.3.1 Baudrillard's approach

"Today abstraction is no longer that of the map, the double, the mirror, or the concept. Simulation is no longer that of a territory, a referential being, or a substance. It is the generation by models of a real without origin or reality: a hyperreal." (Baudrillard 1981–1994, p. 1)

The concept of the simulacrum has been used throughout the history of philosophy, commonly associated with the idea of platonic-dualism (Smith 2006). Platonic dualism implies an ontology in which the apparent reality, the perceivable substances around us, are ephemeral secondary objects, which merely reference the eternal forms residing at the plane of ideas. This philosophical idea encourages approaching the immediate experience of reality with suspicion. It also paves the way for the pursuit of the construction of objects that accurately represent their eternal forms. Plato promoted a distinction between true representations, *eikones*, and *simulacra* or *phantasmata*, faux and perverted representations of the ideal forms (Smith 2006, p. 113). Thus, the problem, originally addressed by the concept of simulacrum, relates to the distinction between the real and the false representation.

Baudrillard (1981–1994) made use of the concept of the simulacrum to analyze contemporary media culture and probably provided the most popular and referenced use of the simulacrum concept. A quick Google search indicates this. Baudrillard examined cultural expressions, technologies such as the hologram, and the media coverage of the Vietnam war to make his case. The author identified five orders through which simulacra become their own reality, leading to the eventual loss of actual reality (Baudrillard 1981–1994, p. 6). In the first order, simulacra reflect 'profound reality.' However, a drift to the second order occurs, in which the simulacrum becomes an 'evil appearance' that masks and denatures profound reality. Simulacra become fake representations. Baudrillard referred to fake idols and the iconoclast movement of abolishing religious icons to describe what is implied. A further digression occurs when simulacra begin masking the fact that profound reality is absent. These third order simulacra are exemplified with Disneyland, which in his words are 'neither true nor false'(Baudrillard 1981–1994, p. 13). By constructing a parallel universe of childishness, Disneyland conceals the fact that childishness is everywhere, similar to how prisons conceal how society itself is a sort of a prison. For fourth order simulacra, Baudrillard denoted images that do not relate to reality at all. These simulacra abandon the nature of appearances and instead produce simulations of reality. This leads to the emergence of a hyper-real societal condition, in which simulacra and simulations become the guiding coordinates. Here, simulacra are both cut-off from reality while having been naturalized by society to the extent that society cannot imagine reality beyond the boundaries of the simulacra.

What is important to note for my research is that Baudrillard's conceptualization of the simulacrum implies a distinction between the real and the simulacrum. He continuously described the simulacrum as standing in relationship with or opposition to reality, which he eventually used to formulate a thesis of simulacra as a source for alienation. In essence, Baudrillard made the simulacrum the culprit of a societal loss of reality.

Initially, there is something compelling about Baudrillard's account on the simulacrum. His analysis resonates with the bewildering experience of living in the contemporary media world. The constant flow of advertisements, technologically mediated communication, and nation-states' propaganda wars increasingly renders Baudrillard's narrative ever more relevant (Morris 2021). Baudrillard's theorization also seems to resonate with organizational actors' experience of navigating simulacra in the business organizational world, which can lead to a longing for Platonist 'eikones' over deceptive simulacra (Macintosh *et al.* 2000, Johnston *et al.* 2020).

Baudrillard's conceptualization of the simulacrum, however, fails to deliver an account for the performative potentials of the simulacrum in a positive sense. What is it that simulacra help businesses produce, we might ask, other than alienation and bewilderment? More importantly, Baudrillard departs from a two-layer ontology that separates reality from performance and action. What is the reality that the simulacrum stands in opposition to, one might ask? How does one distinguish the real images of profound reality from those detached from it? Baudrillard did not provide an answer to this, and certainly not one that helps to advance scholarly engagement with the implications of performativity.

2.3.2 Muniesa's approach

'There is only one layer – a cracked, filamentous and turbulent layer, bumpy and shaggy, but quite horizontal.' (Muniesa 2014, p. 26)

In this section, I present Muniesa's (2014) conceptualization of the simulacrum and two key authorships that have inspired this: Deleuze (1969-1990) and Klossowski (1963). Moreover Muniesa's performative conceptualization is inspired by Callon (1998a) which helps further bridge the conceptualization to matters relevant to studies of business. Muniesa's performative approach departs from the notion that reality unfolds on one layer, implying that the distinction between eikones and simulacra is obsolete. Next, simulacra effectuate change by provoking reality, which makes the simulacrum a vehicle for realization in the sense of making something real. In the following, I present how Muniesa arrives at these conclusions and what they imply for the study of organizations.

2.3.3 Muniesa's inspiration from non-platonist thinkers

In finding inspiration for incorporating the simulacrum concept into the performativity literature, Muniesa recognizes Baudrillard's place in the theorization of the simulacrum, but maintains that the primary fallacy in Baudrillard's thinking is that Baudrillard eventually aligned his thinking with a platonist position. Muniesa instead referred to a 'non-platonist' Platonist position already well established in parts of French literature (Muniesa 2014, p. 21).

If platonic dualism is the main obstruction for approaching the simulacrum from a performative perspective, Deleuze shows a way of circumventing this. Whereas 'the aim of Platonism is its will to bring about the triumph of icons over simulacra' (Deleuze 1969-1990, p. 268), Deleuze's aim was 'to reverse Platonism [which] means to make the simulacra rise and to affirm their rights among icons and copies.' (Deleuze 1969–1990, p. 262). Deleuze departed from a philosophy of difference, meaning that material reality is seen as unfolding through a series of differentiations. Consequently, there is no stable reality to which representations can refer to. Whereas a simulacrum may suggest to the perceiver a repetition between the simulacrum and the simulacrum's referred object, Deleuze suggested that the simulacrum must be seen as yet another difference, essentially detached from the referred object, yet real in its own sense (Deleuze 1968–1994, pp. 67–69). Deleuze found inspiration to this formulation from corners of ancient philosophy other than Plato, namely Lucretius, who referred to simulacra as the slightly perceivable emission that material objects make when differentiation occurs (Deleuze 1969–1990, pp. 266–789, Johnson 2014). Note here that, whereas Baudrillard emphasized the constructed simulacra in his analysis, Deleuze conceptualized the simulacrum as something more akin to the vehicle through which reality can be sensed. Thus, following Deleuze, simulacra are not more or less than reality. Simulacra are part of reality, and importantly, a part of reality that enables subjects to form images, feelings, and ideas of what is going on. As Deleuze (1969-1990, p. 283) put it, Simulacra are inescapable: 'they are everywhere. We do not cease to be immersed in them, and to be battered by them as if by waves'.

One consequence of this conceptualization of the simulacrum is that anything that is claimed to have semblance between a model and copy only feigns to do so. As Deleuze (1969–1990, p. 262) put it, 'The same and the similar no longer have an essence except as simulated [...]'. When something appears as similar to or resembling something else, it is simply a product of the subject's lacking ability to master the experience of the simulacrum and recognize the difference that is ultimately there (Deleuze 1969–1990, p. 258). Semblance is no more or less than a simulacrum. Whereas this realization could lead us down the same path of dreading the simulacral condition as Baudrillard did, Deleuze contended that we have to recognize the effectuating potentials of simulacra. Ultimately, simulacra that produce semblance are necessary for sciences to formulate laws of nature and ideas of generality, which must be founded on the idea of repetition between events (Deleuze 1968–1994). Hence, Deleuze insisted that simulacra and simulations are practical.

For Deleuze, simulacra are not fully formed images that arrive at the subject as ready-made appearances, and do not operate irrespective of the sensing subject. Rather, simulacra operate in conjunction with the sensing subjects. The subject takes part in shaping the simulacrum, its appearance, and its significance through the process of sensing (Deleuze 1969–1990, p. 258). A singular object floods a subject with simulacra, and it is through the subject's ability to sense and make sense of the source of the simulacra that the sense of the simulacrum emitting matter emerges. Klossowski offered a way of thinking about how this process unfolds, which was also recognized by Deleuze (1968–1994, pp. 66–68, 1969–1990, pp. 280–300).

Klossowski introduces an esoteric conceptualization of phantasm, referring to it as an ordering unity that filters and expresses the subject's drives and impulses. The phantasm cannot communicate itself but reveals its existence through its way of producing phantasies[3], dreams of unfulfilled desires. Phantasies are not readily communicable, either, but need some sort of vehicle of expression. This leads to Klossowski's conceptualization of the simulacrum,—namely that the simulacrum is an expression of the phantasm (Smith 2005, p. 14). The only way one can approximate an expression of the phantasm's images, according to Klossowski, is through some sort of artistic expression, be it in text, an image, or in some other kind. Here, we approach an important caveat for the significance of the simulacrum for Klossowski. We see a function of the simulacrum as a vehicle for expressing the incommunicable of the unconscious. Klossowski does not take up a whole lot of space in Munisea's writings. However, the theme of simulacrum as an expression of the uncommunicable real appears now and then, for instance in discussions of the function of business simulations (Muniesa 2014, p. 21, 2017, p. 358).

Klossowski and Deleuze provided a theoretical and philosophical backdrop that contributes some important caveats to my conceptual understanding of how to approach the concept of the simulacrum from a performative perspective. In Deleuze (1969–1990), the simulacrum is the appearance of matter, as it appears for a sensing body. For Klossowski (1963), the simulacrum refers more specifically to constructed

[3] Note the spelling phantasie as opposed to fantasy, connotes a linkage to psychoanalysis and the work on phantasy and symbolic expressions of the unconscious (Deleuze 1969–1990, pp. 210–216)

matter that has been created to express the unrealizable objects of the unconscious. For both Klossowski and Deleuze, simulacra are vehicles that bridge the material world and the sensing subject. Muniesa (2014) followed this line of thought and stressed how this way of engaging with the simulacrum concept helps to study the performativity of simulacra in a business context.

2.3.4 Studying simulacra in business

"[…] economic life is cluttered with simulacra, situations of simulation that often plunge commentators and practitioners alike into some sort of epistemic and moral discomfort, but which ultimately constitute the very vehicle for the realization of business, with realization understood in both the sense of becoming actual and becoming meaningful. Considering the simulacrum as a technique of effectuation becomes a critical ingredient of the social studies of business." (Muniesa 2014, p. 129)

In this section, I consider how the concept of performative simulacra becomes relevant for organization studies by presenting how Munisea and others' have used it already. In this, I highlight Muniesa's related theoretical notion of provocation, which becomes relevant when contemplating the performativity of simulacra.

Muniesa referred to 'the business simulacrum' (Muniesa 2014, p. 103) as a broad notion to cover a range of objects and practices that take part in forming business reality, such as curricula and methods of business schools, performance indicators, business visualizations, slideshows, business simulations, and financial reports. Muniesa studied business simulacra in finance (Callon and Muniesa 2005, Muniesa 2011), leadership development (Lezaun and Muniesa 2017), and marketization (Muniesa and Trébuchet-Breitwiller 2010). Throughout these studies, he tested what happens when studying simulacra as vehicles of business realization. Muniesa noted that simulacra serve to make business objects (such as consumer preferences, leadership ideals, and value) real. This implies that business actors respond to business objects derived from simulacra, as they would respond to other business objects. Hence, simulacra are vehicles for business 'realization' in two meaningful ways (Muniesa 2014, p. 21). First, simulacra orient business actors to make sense of what is going on. Second, simulacra make business objects real in the sense that business actors respond to the simulacra in the same way they respond to other business objects.

Muniesa noted that simulacra tend to produce 'epistemic and moral discomfort' (Muniesa 2014, p. 128). Working with business simulacra that seem simultaneously real and fake can induce a sense of playing 'theatre' (Muniesa 2014, p. 1). As Munisea indicated, this appears a premise for utilizing business simulacra, but it is also a problem practitioners and social scientists must deal with when engaging with the world of business. Muniesa was not the first to notice that business simulacra provide such an uncomfortable utility. He highlighted Hertz's (2000) investigation of the stock market as a significant contribution to the discussion (Muniesa 2014, p. 22). Similar to Munisea, Hertz applied a Deleuzian conceptualization of the simulacrum while taking into account the notion of sociomateriality. Hertz suggested thinking of the stock market as a techno-social 'community of effects' that is 'wrapped up in processes of imagining itself' (Hertz 2000, p. 10). Each market participant is preoccupied with guessing the other market participant's evaluation of the stock market's simulacra. Hence, it is a premise of stock market participation that the community is permanently in doubt and disagrees on the significance of the stock market cacophony, and its relationship to the 'real economy'.

The notion of provocation is a main contribution from Muniesa to the conceptualization of the performative simulacrum (2014, p. 23-24). Provocation refers to an event that makes an effect but implies that the effect reveals something about the provoked. Munisea tied the idea of provocation to Heidegger's notion of *Herausfordern*, which is translatable to the act of challenging—to call forth, summoning to action or, yes, to provoke. Heidegger (1954, p. 14) used the notion of provocation to coin how technology provokes nature to reveal its potential for resource extraction. Heidegger offered the example of a windmill, which both unveils the wind's potential as a source of energy while also extracting this very resource. Muniesa proposed applying a similar thought to business simulacra, seeing them as provocations of business reality.

Muniesa and Trébuchet-Breitwiller (2010) provided a concrete example of what reality provocation looks like in the business world through his examination of a perfume testing site. In this, they examined how perfume preferences are manufactured in perfume test facilities in which perfume testers are placed in a highly controlled test site designed to transform regular human beings into 'measuring instruments,' with the aim of articulating the real perfume preferences of the market. This test site arranges an artificial setup in which preference and willingness to pay are constructed through actual perfume products and questionnaires. Muniesa (2014, p. 23) noted that this perfume test simulacrum is an 'event' that provokes a refined quantified articulation of perfume preferences, a technical arrangement similar to a scientific experiment (Latour 1999a, p. 126, Lezaun *et al.* 2013).

Muniesa also examined provocative simulacra in the context of management education, particularly the case method developed by the Harvard Business School in the 1920s (Muniesa 2014, pp. 96–107, 2016, 2017, 2018, Lezaun and Muniesa 2017). The case method is a management education technique that exposes managers to an artificial business setting and challenges them to act in it. By subjecting managers to difficult dilemmas, which they are forced to respond to under time constraints; the educative technique pressures the participating managers to reveal to themselves their action potentials. The didactic reasoning behind this technique is that management must be learned through experience-based action. In the eagerness to provide a platform for inducing this experience, the Harvard case method arranges the artificial reality of business outside the actual parameters of where business takes place. The case method does not pretend to represent actual business reality; instead, it presents something akin to a surreal business experience—an exaggerated 'absolute reality' (Lezaun and Muniesa 2017, p. 12), something that is intended to be above and beyond reality. A form of representation that reveals something more real about reality than mere realism would have been able to.

Munisea and Lezaun (2017, p. 20) noted how this educative setup resembles a form of business askesis (Sloterdijk 2009–2013). Turning away from the mundane and turning to a simulated reality provides managers with a setting where they can enact themselves differently under the influence of provocations. The authors suggest that the learning that takes place has more to do with provoking a transformational experience than the idea of learning a curriculum. A technically induced armoring preparation of the self to withstand the pressures of business reality. Indeed, a quite different take on the function of change management representations than has unfolded thus far in the dissertation.

Meanwhile, the authors also wondered, does this technique backfire? Does the surreal representation lead to an opposite movement downward? Rather than succeeding in reaching the transcendental real of business, does the case method resolve in the arrangement of a sub-real business reality, a business experience that is merely less than real? The case method plunges observers, trainers, and trainees to confront the unease of the simulacral condition.

Muniesa (2017, p. 359) suggested that the case method eventually reveals 'that the real stands now for what cannot be realized, if not in a delirious or hallucinatory manner.' In uttering this remark, Muniesa referred to Lacan's psychoanalytic notion of the real described as a negative space that is not accessible through language. Although Muniesa did not make these connections here, we see that obvious lines could also be drawn to Deleuze's (1969–1990) conceptualization of the simulacrum as that which is sensed of the pure becoming (the real event) and Klossowski's conceptualization of the simulacrum as the perverted product of the phantasm (Smith 2005). A perspective, which is hinted at by Muniesa but unfortunately not fully developed.

In summary, Muniesa and Lezaun (2017) suggested that the case method enables not so much the attainment of set knowledge or a rehearsed skill. Rather, the experimental educative setup provokes a potential transformation of the manager, making a certain kind of businessperson out of the participants. The provoked anxiety becomes instrumental for the training, as they are allowed to play with it in the contained space of the educative setup (Muniesa 2020). This infantile (in a psychoanalytic sense) regressive process may actually help bolster the managers' personal shields, as they are allowed to experiment with other ways of being, although the answer to this suggestion question lingers. Despite the obvious disconnect between mundane business reality and the Harvard case method exercises, the business simulacrum may still serve a purpose, as it potentially effectuates a change in the managers that mundane reality would not have.

2.3.5 My conceptualization of the simulacrum

So far, I have given account of different conceptualizations of the simulacrum and given examples of previous analytical usages within the performativity literature. Since I have presented a plurality of related definitions, time has come to present how *I* conceptualize it.

I conceptualize a simulacrum as a sociomaterial arrangement that refers to a given object, state-of-affairs, or event in a way that provides the experiencing subject a sensed impression of the object. In business settings simulacra appear in a variety of ways. For instance, the Black Scholes-Merton model referencing future market scenarios (Millo and MacKenzie 2009), a Lean based value stream map referencing interlocked steps of organizational routines and product throughput (Rother and Shook 2003), role-playing exercises for leadership training, referencing 'real' leadership performance (John R. P. French 1945, Lezaun and Muniesa 2017).

The simulacrum is fundamentally dissimilar to the reference object, but it still doubles the object by creating a distinct experience of it. This appearance is not to be equated with the original object. Rather, the simulacrum is simultaneously a specific expression of the object and something in itself. The simulacrum is not inferior to its reference object nor superior to it. It exists on par with everything else, yet with an intended relation to its reference object.

A simulacrum is performative, which means it works to produce particular intended effects, which is why its agency must be understood in relation to its network. Its performative effects happen by provoking its sensing subject, i.e. by making the subject respond to it and thereby eliciting a potential of the provoked subject. The provocation and the elicited potential address the subject's relation to the reference object, "the real object". Thus, the simulacrum entangles with the sensing subject in a way that effectuates a relationship to reality elsewhere – a reality reflecting the specificities of simulacrum-subject interaction. This is why it is meaningful to say that a simulacrum performs reality.

Within the context of organizations, understanding management tools as simulacra thus invites a study of how they provoke organizational actors and what the organizational effects of these provocations are. This adds to a more detailed understanding of the socio-material performance of organizations. Such a simulacrum analysis is applicable to a myriad of organizational themes and situations where provocatory tools participate. In this thesis, special attention will be given to analyzing how change management tools as simulacra work to provoke organizational subjects and constitute certain types of performative effects.

2.4 Supplementary concepts

With the concept of business simulacrum laid out above, I now move on to describe three supplementary concepts that I use to support my analyses. Although the concept of simulacrum offers an important perspective for the analysis, it is not sufficient to cover the specific caveats that I explore throughout the three papers. The three supplementary concepts are the figural, framing, and elevation. In the following sections, I will introduce the three supplementary concepts one by one. For each concept, I will include a short presentation of the authorship behind the concept and pinpoint how it allows me to follow the performative in my study.

2.4.1 The figural

In this section, I present Lyotard's (1971–2011) notion of the figural, which naturally ties in with the concept of simulacrum. Lyotard's theorization of the figural provides a certain angle for studying the performativity of visual objects, an essential theme for the dissertation.

The use of visuals is a big thing in business (Boxenbaum *et al.* 2018). Consider the role of logos in corporate image (Henderson and Cote 1998), visualizations of strategy (Cummings and Angwin 2015), and the visual element of Lean (Rother and Shook 2003). Visuals are instrumental. They are didactic, operationalizing, manipulative etc. The function of the visual has harnessed a growing interest in organizational research, and the performative aspects of visuals are already being explored (Justesen and Mouritsen 2009, Kaplan 2011). However, there are still many questions to the visual element of organiztions that need answering. Of particular interest to the current dissertation, it has been stressed that visual effects on the 'deeper elements of human consciousness' are still undertheorized (Meyer *et al.* 2013)

I suggest that Lyotard's (1971–2011) conceptual work on 'the figural' presents a useful contribution to the theorization of the visual in organizations and provides an approach for studying how change management tools affect change managers. Lyotard helps theorize the interplay between the visual, the discursive and the deeper elements of human consciousness, in a way that travels well with the performative turn. Whereas Lyotard's contributions to the conceptualization of performativity have become a key reference in the performativity literature (Muniesa 2014, Czarniawska 2016, Gond *et al.* 2016), Lyotard's earlier theorization on the concept of the figural appears underappreciated. I use the notion of the figural and figurality (Lyotard 1971–2011, pp. 107, 162) to open a discussion on the agency of the visual and its relevance for considering the phenomenology of perception.

2.4.1.1Three types of figures

Lyotard's study of the figural concentrates on the fundamental question of what it takes to become a figure for the human eye. To structure his argument, he proposed a distinction between three types of figures that interoperate in a figural event (Lyotard 1971–2011, p. 279).

1) Figure-image – seen as surface, like an outline of an image

2) Figure-form – a significance of the figure, a thickness obtained through aid of language

3) Figure-matrix – an unconscious deep configuration

With this triadic model, Lyotard bridged the mode of perception and the mode of language. He did this in an attempt to '[link] art to the representation of what consciousness cannot represent to itself' (Mowitt in Lyotard 1971–2011, p. xxii). Lyotard criticized and attempted to unite aspects of phenomenology (Merlau Ponty), structuralism (Saussure), and psychoanalysis (Freud and Lacan). He argued that these schools of thought all provide an incomprehensive treatment of the space between figure, perceiving the subject and discourses. In theorizing the space in which these three domains interconnect, he dedicated his book to 'sight,' anchoring sympathy in phenomenology (Lyotard 1971–2011, p. 3). This must be read in the context of a larger mission of taking 'up the defense of the perceived world against the imperialism of language' (Dews 1984, p. 40). Saussure's linguistic theorization of experience situates the subject in a linguistic sign system that directs and determines the subject's world perception. Lyotard opposed this and suggested that the immediate perception of the world allows access to a reality beyond the system of language. Sight allows the perceiver to access a different form of the signified than what language's referential modus allows. Lyotard contended that, through language, one indicates *and* loses sight of the signified. Thus, a fundamental premise of language is that in its pursuit of capturing its signified, language makes the signified absent.

A figure-image can be thought of as a physical object that enables the seeing subject to infer the figure. A figure image is, however, only a figure-image for the beholder, who gathers a meaningful figure-image through sight. A figure-form denotes the appearance of the figure, as it appears for the subject between the two axes of sight and discourse. Figure-forms are immediate phenomena, which the perceiving subjects come to recognize as something. Lyotard used the case of the figure of the written letter and word to illustrate his example. He pointed out that figure-forms appear when the perceiver connects the lines. In this event, they become letters rather than lines. Reading letters is the act of recognizing the letters' lines as figure-forms. This is also where discourse attaches to the figure-image, as a figure-form emerges and receives a label. Lyotard noted that reading is an active process of interpretation and consideration of the placement of visual objects in context. He illustrated this by reminding us that our ability to distinguish between the graphic shapes of Z and N depends on the direction from which the letter is seen and its relationship with other letters on its line (Lyotard 1971-2011, p. 206).

The figure-matrix is equivalent to the unconscious and somewhat relates to Freud's drive-based iteration of it (Dews 1984). The figure-matrix is a figural dimension beyond immediate reach. Lyotard wrote that 'By definition, the figure-matrix is invisible, the object of originary repression' (Lyotard 1971-2011, p.

268). The figure-matrix is what gives rise to dreams during sleep (Deleuze and Guattari 1972–1983, pp. 243–244). The figure-matrix uses discourse and figure-images to become articulate. Dreams are fleeting in nature and require articulation through discourse or images to exist. Dreams, or the figure-matrix, thus exist only in distorted form, in confirmation with a discourse or figure-image, hence the psychoanalytic notion of dream work, a psychotherapeutic technique aimed at articulating dreams.

Discourse is always present for the perceiver and must be taken into account when contemplating the processes of figure perception. Lyotard did not believe in the phenomenological claim of accessing a pre-linguistic world. There is no true structure of phenomenological qualities beyond language. Rather, language and sight are intrinsically related. The relationship between discourse and figure is not a dialectic one (Lyotard 1971–2011, p. 50). Rather, figure and discourse operate *inside* each other. Lyotard (1971–2011, p. 7) noted that 'Only from within language can one get to and enter the figure.' Discourse designates significance to figures, infusing figures with meaning. Yet, discourse does not dominate figures. Figures can also represent discourse. Through figures, discourses take form and become able to communicate themselves more efficiently. '[A figure] surrounds discourse, offering it its object as image' (Lyotard 1971–2011, p. 50). Figures and discourse operate on each other and mutually occupy each other. Figures and discourse both reduce and strengthen each other. The figure-image provides a surface while the figure-form provides 'thickness'(Lyotard 1971–2011, p. 49). Both figure-image and figure-form are necessary cogs in the machinery of perception.

2.4.1.2 The figural as an operationalization for analyzing simulacra's performativity

With the notion of figure-matrix, Lyotard opened the door to psychoanalysis and delivered an approximation of the notion of psychodynamic mechanisms of projection. In the words of Lyotard, 'The world throws itself into artworks because there is emptiness within it and because the artist's critical expression provides a shape to our object-seeking desires.' (Lyotard 1971–2011, pp. 281–282). Lyotard, however, would not have bought into the premises of a tool like Rorschach's inkblot-based projective psychiatric assessment (Rorschach *et al.* 1942–1951). Lyotard insisted that a tool like that will never show the real unconscious because the projection is not pure. The revelation of the unconscious figure-matrix through the figure-image and figure-form comes at a price. In the process of containing the figure-matrix, the figure-form co-constitutes it and ultimately distorts it. Here, it becomes clear that Lyotard's point is not to repeat psychoanalysis. Instead, he takes its theoretical potential a step further. Lyotard contends that figures operate in a 'figural space' beyond sign and signified, signification, and designation, which connects the three types of figurality. A figural space is an 'event' (Lyotard 1971-2011, p. 129) in which the figure-image and observer become entangled, and the significance of the object is determined (Lyotard 1971–2011, p. 50). The figural space fuses the figure-image and the observer (Callan and Williams 2011). The figural space enables the figure-image to convey more potentials of meaning than any discourse of pre-defined meaning could ever have. In the figural space, the three types of figures dynamically and mutually exploit each other as the significance of the event emerges. Any line, color, suggestive associations to discourse, or shortcomings of the representational accuracy of the figure-image, is an invitation to the figure-matrix to reveal new facets. This appears to me to be the core of Lyotard's suggestion, which I contend has broad implications for the way we think of functions of simulacra in society, organizational change management.

Lyotard's (1971–2011) conceptualization of the figural lends itself well as a supplement to the study of the performative simulacrum (Muniesa 2014) by offering theoretical specifications on how to think of simulacra's performative potentials. It is difficult not to see concepts of simulacra and figure-images as somewhat overlapping concepts. Deleuze was certainly under the influence of Lyotard. What is relevant to consider, however, are the conceptual developments that have been made regarding the notion of the figure. Here, I think of the theorization of the figural as a way of studying the performative potentials of change management tools. Adding the concept of the figural to my theoretical apparatus is a way of obtaining a tool for studying the entanglement of visualizations related to discourse and the deeper elements of the conscious. Most interestingly, the concept of the figural provides an instrument for studying how simulacra effectuate change in their perceivers, for instance, a reconsideration of the role of the deep configurations in the function of organizational visualizations, and taking into account mechanisms such as psychic projections. With Lyotard, we receive both a theorization on the 'deeper elements of the human conscious' (Meyer *et al.* 2013) and an additional angle to study the performativity of change management tools.

2.4.2 Framing

In this section, I present the concept of 'framing' (Goffman 1974), which I will use to analyze how change managers make use of change management tools in practice. Framing refers to intentional acts performed by actors to change the frame or used by participants of a situation to organize their experience of the situation. Framing is a way of playing with reality that can have both utilitarian and deceptive potentials.

Why deploy the concept of framing, and not a concept such as 'logics' from institutional theory? Logics refer to 'material practices and symbolic constructions' that constitute the organizing principle around a given institution (Friedland and Alford 1991). Sometimes, this is referred to as rules of the game (Jackall 1988). Institutional logics have been used to study many things, for instance, how market logics guide executives' focus within firms (Thornton and Ocasio 1999). Whereas the concept of logic can be useful for studying discursive embeddedness, the concept is less suitable for studying how actors push back at discourses and alter discourse in the situation, which is important to consider when studying a theme of resistance. Further, the concept of logics bears a trait of metaphysics, which risks narrowing analytical attention, reducing sensitivity to the buzzling performativity of the situation. The main reason for choosing framing over the concept of logics is that I want my study to reflect the performance of tools in action.

2.4.2.1 Frames

The concept of frame, as developed by Goffman (1974, p. 13) with inspiration from Bateson (1972a), refers to the 'organization of experience.' We can think of a frame as an actor's sense of what is going on in a situated interaction. Actors read signs of the situation to decode its frame and determine what they should do next. Actors' ability to read frames is related to the fact that they are accustomed to what Goffman calls primary frameworks. A primary framework provides experience-based coordinates of how a situation would typically play out (Goffman 1974, pp. 21–39). A primary framework is anchored in the beliefs of the subject and the ways in which the subject has been habituated to perceive reality. Goffman (1974, p. 21), for instance, referred to frameworks that are native to 'Western society' to underscore how frameworks are tied to cultural heritage and personal habituations. Hence, organizations are indebted to actors' abilities to incorporate frameworks and read frames in situated actions.

In a business context, framing is a way to establish boundaries between what is significant and what is not. This is useful for performing certain practices, such as those that relate to calculating and simulating futures. An established frame provides internal logic to a local practice and a gaze at the external reality, as governed by the rules of the frame. Callon (1998b, p. 249) noted that framing is a way of 'putting the outside world in brackets as it were, but does not actually abolish all links with it.' For instance, simulation-based exercises establish frames for participants to engage in, but also ways of gauging the mundane business from a position outside. Lean practices tend to do this as well, whether through problem-solving techniques, performance board meetings, or kaizen events. The establishment and maintenance of frames have utility in business contexts. Business simulacra participate in this as agents that stage frames. However, frames are not stable, and they may shift according to unfolding events. Actors can exploit this dynamic and seek to change the frames in which they participate, if they are so inclined. Goffman referred to this as framing that occurs through upkeying and downkeying acts.

2.4.2.2 Upkeying

Goffman (1974, pp. 312–315) referred to the act of tying a mundane situation to an overarching frame of meaning for 'upkeying.' A simple way of upkeying is to transform a comment into a joke through a winking eye, signaling that an utterance is meant to be read in the frame of joking and is not to be taken literally. Bateson observed how animals upkey the frame of play by performing a particular set of behaviors while avoiding others (Bateson 1972b), for example, nipping rather than biting. A frame of play resonates with what Huizinga (1949, p. 10) called a 'magic circle […] temporary worlds within the ordinary world, dedicated to the performance of an act apart.' Upkeying is necessary when constituting a ludic frame of a serious game, for instance. Simply telling people they play a game will most of the time not be sufficient.

Upkeying is crucial in organizational settings when organizations promote the use of tools that rely on business simulacra. For example, a Lean performance board meeting is upkeyed and attached to the higher-order idea of Lean by a set of prompts, performances, and taboos. Theatrical elements that allow the act of Lean to appear real and significant. I have had many firsthand impressions of Lean-related framing at Novozymes, and I have attained the impression that framing makes up a quite significant part of the Lean work. I sometimes followed the Lean partners when they went to assess and coach line managers on their daily Lean routines. I noticed that much of the feedback the Lean partners gave to the managers was related to what I would come to think of as techniques for establishing and maintaining a suitable frame for the given practice. In giving feedback to managers, the Lean partners often underscores the importance of disciplining employees to conform to certain rules of conduct. Regarding performance board meetings, employees had to be timely, and they had to stand close to the board in a half circle facing the board. The managers were encouraged to give the operators specific tasks concerning the board meeting so that they would become active participants and take responsibility. The Lean partners developed laminated pocket-sized cards, indicating with bullet points important behaviors they expected the managers and the employees to perform during the meetings. The Lean partners would refer to the overarching Lean principles to further tie the mundane practices to a high level of significance. The Lean partners would do this by repeatedly telling the managers that the "why" behind the Lean practices could be summed up in simple but powerful phrases like "see the problems," practice "Lean thinking," and achieve "continuous improvements." By coupling the mundane practice with discipline and high-reaching Lean principles, the Lean anchors and partners attempted to upkey the practices, thereby transforming the act into something more than a mundane routine.

2.4.2.3 Downkeying

A simulacrum becomes 'real' as actors begin framing it as such. The business simulacrum is indeed a productive force, as Deleuze would argue, but its functionality rests on a fragile foundation. The simulacrum's ability to induce a credible sense of reality, or at least to have utility, is always at risk of collapse. Frames break easily, and it takes effort from a collective to sustain a functioning frame. A theater metaphor applies to this point. The illusion produced by a theater actor's performance on stage is reliant on an audience that applauds, laughs, and stays silent at appropriate points in time. In other words, the audience co-performs the theatrical performance through its responses. Frames exist in the interactions between the participating actors. Bateson (1972b) neatly showed the fragility of the frame of playfulness in a play situation: wrestling as play ceases being a play when one of the actors violates the implied rules. For example, delivering a fist punch can break a playful frame. Goffman referred to these types of actions as downkeying. Whereas an upkeying performance attaches a situation to a higher order principle, downkeying is a performance that detaches a situation from the higher order principle.

Sometimes, downkeying happens by coincidence, such as when a bride slips in her dress walking down the aisle. In this instance, the sacredness of the ceremony breaks and shifts to a frame of comedy or tragedy. At other times, frames break on intent. Actors may have an interest in downkeying an event, for instance, if they hold antipathy toward it. In a business setting, this often occurs in relation to the implementation of new corporate initiatives, such as Lean. Actors opposed to the implementation can make attempts to disturb the frame in which it is introduced, for instance, by uttering satirical remarks or hanging a Dilbert cartoon in the copying room.

Figure 2 DILBERT© (Adams 2001)

I heard actors downkey the Lean transformation countless times in Novozymes, often by pointing out inconsistencies in the discourse surrounding the setup. For example, at a board meeting, an operator remarked that 'We spend so much time doing Lean. I thought Lean was about saving time, not wasting time?' A remark like this often elicited laughter and smiles from co-workers. In another instance, an operator was persistently ridiculing the principle of 'trust,' which his managers had promoted as part of their implementation of new work standards—as trust the standard. He repeatedly highlighted two cases in which he had checked his colleagues' work before starting his shift and had found errors that could have been costly had he not found them. It was his lack of 'trust' that had ensured successful batch production, he proclaimed triumphantly. In these instances, I observed that a key component of the managerial task was struggling to accommodate the critiques while attempting to reinstall a suitable frame. As an example, they could reiterate the discourse about continuous improvements as a long, hard pull that would eventually pay off.

A comment by Goffman (1956, p. 33) resonates with my experience of downkeying: 'When the audience is known to be secretly skeptical of the reality that is being pressed upon them, we have been ready to appreciate their tendency to pounce on trifling flaws as a sign that the whole show is false.' The notion that pointing out flaws acts as proof of fakeness of the event ties to the previously mentioned concern about the simulacrum, as pointed out by Deleuze (1969–1990). In the case of Lean, downkeying and upkeying have to do with distinguishing between eikones and phantasmas. Can the actors actually trust the simulacra that surround them? This question often seemed to be at the center of the struggles in downkeying and upkeying. The utility of business simulacra is tied to the performance of actors who cater to their frames of participation. The performance of business simulacra is fragile and demands ongoing maintenance.

2.4.3 Elevation

The final supplementary concept is elevation, inspired by Sloterdijk's (2009-2013) study of anthropotechniques. I will use this to analyze Wallbreakers. The concept of elevation is key to Sloterdijk's study, but it has not really gained traction in organization studies, although Sloterdijk's study on anthropotechniques has not gone unnoticed (Halsall and Brown 2013, Halsall 2016, Spoelstra 2016, Muniesa 2018). To my knowledge, no studies have addressed leadership development, taking into account the concept of elevation or Sloterdijk's authorship, for that matter. Why do I draw upon this and not something more conventional, such as critical management studies?

My first answer to this is that I felt a great resonance between Sloterdijk's writings and my sense data. A notion of elevation, along with the general analyses that Sloterdijk offered in his study of anthropotechniques, presented me with an intellectual angle applicable to leadership development, which I had not been able to find elsewhere. My challenge in seeking a useful concept for studying the educative change management tool was to find one that helped me think critically without becoming presumptive and pessimistic. There is a tendency in leadership development studies to fall into an unwarranted optimistic account of the effects of a leadership development program on managers' subsequent competences. Critical voices have highlighted the lack of hard evidence for supporting the efficacy of leadership development (For a discussion on this, see, for instance, Avolio 2004, pp. 169–174) and critical management studies have highlighted how leadership development programs are clandestinely submissive, luring managers into becoming discursively disciplined and controlled (Gagnon and Collinson 2014). Although these kinds of Foucauldian critical identity studies have merit, and I sympathize with them, it is also important to recognize that the point has already been made. The idea of governmentality has been established and has been in circulation for decades, yielding interesting findings (Foucault 1977–1995, Miller and Rose 1994, Rose 1998). However, as Sloterdijk (2009–2013) also noted, critical theory not only broadens analytical potential, it also limits it. Critical theory risks producing a ceiling effect that prevents truly surprising analytical takes, and even Foucault grew tired of the limitations posed on him by this critical perspective he developed throughout his writings (Sloterdijk 2009–2013, p. 150). He ended his career pursuing a positive reading of self-techniques of the ancient traditions, which shocked his followers, who had gotten used to going on power paranoid ventures with him (Foucault 2005). The reason for my search for a positive perspective, or at least an agnostic one, was that I really felt an overly pessimistic perspective would get the analysis out of touch with the reality I had experienced. Rather than dusting off the old hat of the young Foucault to inspire me, I felt called to make a daring move and venture into the conceptual world of Sloterdijk to see where it would take me and what it would enable me to see.

Sloterdijk's study of anthropotechniques is written quite explicitly as an attempt to approach self-technologies from a perspective beyond what he called 'critical kitsch' (Sloterdijk 2009–2013, p. 152). This is, for him, represented by Marxist critique, the Frankfurt School, and the early writings of Foucault. Sloterdijk understood critical kitsch as a paranoid intellectual reading of self-technologies that overemphasizes submissive and manipulative potential and neglects their positive aspects relating to the transformation and elevation of human capability as individuals and collectives. Eventually, Sloterdijk was concerned with distinguishing the anthropotechniques that actually enable societal advancement of the 'social immune system' (Sloterdijk 2009–2013, pp. 447–452) over fake anthropotechniques, which leads to cultural and ideational reproduction. Sloterdijk's critical engagement with his subject matter does not imply Marxist thinking but rather an attitude that remains open to the performative potentials of various techniques, artifacts, rituals, and exercises of the self (Sloterdijk 2009–2013, pp. 211–213). Studying anthropotechniques as performances, with an attitude of critical curiosity and optimism, becomes a way of reconsidering the implications and potentials of organizational artifacts and practices, such as those offered by change management tools.

I will not conduct a comprehensive investigation of the full conceptual framework that Sloterdijk developed in his analysis. Nor will I engage with the perspectives of his broader authorship. Such a task is too vast to adequately cover in this format, and it would distract the focus of the dissertation. The function of Sloterdijk's concept here is to help cultivate thinking about the effects of techniques used for orchestrating simulation-based change management education, and what makes it a potential vehicle of change and professional becoming.

2.4.3.1 Elevation as a vehicle for human development

Sloterdijk (2009-2013) considered self-technologies as ascetic systems: practices, dogmas, artifacts, and sites that urge human subjects to elevate their perspective on the world and develop their abilities to engage with it. In Sloterdijk's study, askesis is 'any operation that provides or improves the actor's qualification for the next performance of the same operation, whether it is declared as practice or not.' (Sloterdijk 2009–2013, p. 4). Hence, askesis refers to any practice that lead to self-development. With this definition, Sloterdijk observed ascetic practice in such distinct domains as craftsmanship, religions, sports, gymnastics, acrobatics, and philosophy. For Sloterdijk, earth is an ascetic planet of practicing human beings who seek to elevate themselves individually and or collectively. Askesis is not restricted to any one social, cultural, or organizational activity but rather permeates human performance across different historical epochs and geographical regions. Sloterdijk highlighted resonance across diverse ascetic practices by locating their commonalities as technical systems. Hence, for Sloterdijk, there is something awe-inspiring in observing the elaborate and well-functioning machine of El Ron Hubbard's church of scientology, as it exemplifies an almost perfect ascetic system, while revealing the horrendous potentials of strong ascetic cultures. (Sloterdijk 2009–2013, pp. 83–105).

For Sloterdijk, the notion of elevation is simultaneously vague and concrete. In a broad sense, elevation relates to "verticality" (Sloterdijk 2009–2013, pp. 113–114). Desirable states of accomplishment tend to reside above the human subject, symbolically and literally. The parent walks above the child. The king's throne is elevated. Mountain summits linger above. Elevation has to do with striving upward and breaking the ceiling of comprehension and competence. Elevation refers to a state of being in which a subject experiences a transformation in their competence or world perception. Hence, elevation is a vehicle for human change. Looking for verticality in common organizations can be quite an eye-opening exercise. Notice how ingrained elevation is in organizations, in which the animation of managers and employees to constantly seek means of auto-elevation is commonplace (Halsall and Brown 2013). Consider the verticality expressed by the metaphors, visualizations, and technical human management systems that furnish the organizational milieu. The organizational chart places power at the top. Career advancement moves the subject higher up the organizational ladder. Training and education are coined upskilling. The performance chart expresses successes when the line moves upwards.

Whereas the final goal of ascetic practice may be difficult to grasp and impossible to realize as a sustainable state, the path toward it can be highly explicated in ascetic systems with stepping-stones laid out to aid the ascender. Sloterdijk noted how various religions are built up around strict hierarchies of elevation—'ladders' (Sloterdijk 2009–2013, p. 126)—that clarify the acts that must be performed and the 'summits' (Sloterdijk 2009–2013, p. 181) that must be conquered on the path upwards. To achieve elevation to new summits, the practitioner must engage in unnatural systematized exercises, or acrobatics. Sloterdijk drew inspiration from Nietzsche's description of the acrobat, the well-trained performer of seemingly unnatural acts. The etymological roots of the word acrobat refer to the act of walking (baínein) up (akro), like tiptoeing, an act which itself is 'the simplest form of natural anti-naturalness' (Sloterdijk 2009–2013, p. 125). Ascetic practices help bring the subject closer to the sublime, to the improbable through unnatural practices.

Sloterdijk perceived training as a process in which the training subject undergoes an ongoing conversion from one iteration of a dominant training exercise, or world perception, to another. Conversion is not an active operation performed on a passive subject; rather, conversion is understood as an "activation" of the subject (Sloterdijk 2009–2013, p. 195) that leads to the potential of performing new practices. Sloterdijk suggests that the human subject be seen as 'someone who is active as the carrier of a sequence of exercises' that form habits (Sloterdijk 2009–2013, p. 156). Human beings are ‘possessed’ (Sloterdijk 2009–2013, p. 167) by habits, and it is only through conversion to new habits that the subject can liberate itself from its self-formed imprisonment. Ascetic conversion, in a classical sense, depends on continuous formalized practices, such as the stoics’ meditations on mundane problems (Hadot 1995).

2.4.3.2 Elevating techniques

Sloterdijk’s analysis covers a wealth of different techniques used to elevate human subjects. A key elevating technique relates to the arrangement of secession. Secession, he noted, is any technique that allows the ascetic practitioner to step out of the “river of habits” and onto “the shore,” to acquire a new vantage point on ordinary reality (Sloterdijk 2009–2013, p. 222). Secession is a mental exercise, often facilitated through the arrangement of a controlled frame that allows the subject to step outside of normal life, obtaining the experience of observing reality from a vantage point above. Sloterdijk (2009–2013, p. 217) added, ‘All increases of a mental or bodily kind begin with a secession from the ordinary.’

Secession often entails the arrangement of a site in which the ascetic practice can unfold. Sloterdijk (2009–2013, p. 222) mentioned examples such as the cave of the hermit, monasteries, and churches, but also mundane sites, such as the gym and the school. Arrangements of physical sites is not necessary, however. Secession can be strictly a mental exercise. Referencing Wittgenstein (1953), Sloterdijk (2009–2013, p. 230) noted the role of language games in liberating the subject from habit and cultivating something new in ascetic practice to ensure the ‘removal of the subject from the language stream.’ Painting a more general picture of secession, think of Goffman (1974) and note that secession is the enactment of a frame that expels normality and allows learning subjects to perform abnormal exercises with the intention of improving the self. Secession, as an elevating technique used to ‘catapult’ (Sloterdijk 2009–2013, p. 190), training subjects out of their current regime of beliefs and world observations and situate them in a space from which they can become reoriented. Thus, secession is a technique for elevating the learning subject, allowing the subject to rise above normal reality.

Rising above the normal also entails the possibility of rising above the self. Sloterdijk indicated the tendency of anthropotechniques to attempt to strengthen “the inner witness” (Sloterdijk 2009–2013, p. 237), the imagined upper structure of the psyche, Freud’s ego, which is able to look down upon the untamable drives, and the lower structure of the psyche. Sloterdijk highlighted that anthropotechniques tend to double the self through language games and artifacts. Self-doubling techniques enable subjects to observe and evaluate themselves from the outside (Sloterdijk 2009–2013, Macho 2013, p. 233). To illustrate this practically, Freud’s figure-image of the structural dimension of the mental aids in exactly performing this mental exercise (Freud 1933 in Gamwell and Solms 2006, p. 128). It doubles the human subject’s image of its psyche, allowing the subject to speak of the mind and look down upon it, providing an experience of seeing the mind from the outside. Elevating techniques and technologies facilitate the experience of ‘stepping out of oneself’ to gaze at the self from a position above (Sloterdijk 2009–2013, p. 357). By splitting the self and rising above it, the self becomes an object that is amenable to change.

Lastly, Sloterdijk noted that anthropotechniques tend to attract human subjects and make them want, pursue, and commit to regimes of auto-elevation. ‘Attractors’ (Sloterdijk 2009–2013, p. 13) draw training subjects to them, urging them to conquer them, similar to how a mountaineer conquers a mountain, attracted by its ‘summit’ (Sloterdijk 2009–2013, p. 177). Sloterdijk mentioned the state of Nirvana, the image of the perfect body, and the unnatural maneuvers of the acrobat as improbable summits subjects can strive for but never sustain. Attractors often come in the form of ‘exemplary’ figures that draw subjects toward them encouraging the pursuit of self-development (Sloterdijk 2013, p. 26). Classic Athenian statues is one expression of this while glorifying biographies of famous business leaders is another (Halsall 2016). Exemplary figures function as ‘the yardstick for vertical tensions that provide orientation in mental systems.’ (Sloterdijk 2013, p. 13). The purpose of summits is attraction, catalyzing the momentum that drives subjects to engage in training. The vertical tension provoked by attractors serves as a catalyst that motivates the search for means of auto-elevation. Attractors and exemplary figures urge subjects to aim for the improbable realization of the exercising self (Sloterdijk 2013, pp. 176–179). Relate these observations to a concept as common description of Lean to appreciate how the ascetic culture applies in the business world. Lorino (2018) for instance notes that ‘Lean is not a destination; it is a continuous process towards perfection’.

I take inspiration from Sloterdijk’s notion of elevation and his examination of elevating techniques when approaching the question of business simulacra’s ability to shape change management. In particular, I consider simulation-based change management training through the conceptual lens of elevation, as described above. Rather than seeing arranged business simulations as superfluous gimmicks, Sloterdijk helped tie them in a new way to the practicing and ascetic history of the human race. I use the concept of elevation to challenge my own thinking by considering the effects of change management tools in educative arenas.

2.5 My engagement with the four concepts

The four theoretical concepts laid out above help me study the interaction between change management tools and change managers from a performative perspective. I consider the four concepts my conceptual apparatus from which I will draw different ways throughout the dissertation’s three papers. My intention has been to establish a theoretically informed perspective rooted in performativity literature.

By mobilizing a performative conceptualization of the simulacrum, I obtain a specific perspective on the visualizations of change management tools. This analytical angle is relevant in the examination of change management tools, out of which some have been taken hostage in the critique from emergent perspective

(Chia 1999, Tsoukas and Chia 2002). Through the concept of simulacrum, I intend to sidestep debates on representationalism (Rorty 1991, Tsoukas 1998). Instead, I engage with visualizing tools through the concept of simulacrum to study visualization as 'a vehicle for effectuation' (Muniesa 2014, p. 81). I consider the concept of the simulacrum to be core to the theoretical apparatus, a guiding principle that orients my analysis and indicates where interesting tensions and problems may lurk.

With the business simulacrum as my conceptual base, I added three supplementary concepts, each of which in their own way adds something to the concept of business simulacrum, which I have found relevant when conducting my analytical work. The concept of the figural provides a theoretical framework that ties together the visualization, language, and the unconscious useful for analyzing the event of perception. This provides a theorized language for addressing the complex relationship between change managers and change management tools. I draw on the concept of framing to consider the social dynamics that constitute business simulacra's effectuation potentials. The concept encourages recognition of the change manager as a potentially essential constituent to change management tool's performance effects. Lastly, the concept of elevation encourages us to consider the function of change management tools in the function of self-development in the broader context of self-techniques across history and geography. The concept draws the analytical gaze toward the tools' arrangements, and the role of this in the promising potentials of allowing change managers to elevate.

The concepts bear different weights across the dissertation's three articles, although I consider all four concepts relevant for both the cases of tool-based arrangements. Article 1 mainly employs the notion of the figural. Article 2 mainly utilizes the notion of elevation. Article 3 mainly relies on the concept of framing. I will expand on these points in the final discussion. Combined, the conceptual apparatus forces the dissertation's analyses to engage with different conundrums of the tool–user relationship while staying firmly grounded in the perspective of performativity. This marks the end of my conceptual presentation. The dissertation now moves on to present the dissertation's methodology.

3 Methodology

In this chapter, I present the case and explain how I arrived at my methodology. I start by presenting the case and its context. I then move on to present my methodology by describing three research personas, which I have enacted across the dissertation's three papers. In this section, I present my operationalization of the data collection and the analyses.

3.1 Context for the case

Novozymes is a Danish enzyme producer delivering enzyme solutions for the B2B and B2C markets. Novozymes provides a vital link to the global industrial supply chain of products within household care, food and beverages, health, bioenergy, agriculture, nutrition, and water cleaning. The company has more than 6,000 employees worldwide and production sites located in the Americas, China, Denmark, and India. Novozymes has the largest market share in the enzyme production industry and strives to maintain its market leader position. Novozymes brands itself as a knowledge- and science-based company and has a history of collaborating with research institutions and business partners in pursuit of the development of new enzyme solutions. The business runs steadily with a solid operating margin of 25% to 28%. Growth is a concern, however. Novozymes continues to invest heavily in research and development (R&D), with about 14% of the company's revenue circulating back into R&D, in an attempt to develop new products and to develop new markets (Novozymes 2021)

The position of market leader is under threat due to growing competition. Besides its focus on R&D, Novozymes is increasingly competing on supply chain performance—that is, quality, price, speed of production, and transparency of time from order to shipment. Further, Novozymes faces the challenge of stagnation of growth in orders from its traditional customer group—mostly large Western companies. Consequently, Novozymes has made a shift in its growth strategy by focusing increasingly on retail customers and smaller companies in emerging markets. Beyond the general need to improve efficiency, the shift in strategy has put further pressure on the company's ability to adapt the supply chain to new demands. Novozymes now focuses on decreasing delivery time and increasing oversight of the supply chain, pursuing a faster and more convenient customer experience. All of this has led to a pursuit of supply chain optimization and developing the capacity to rapidly adjust production setups.

In 2012, Novozymes began implementing Lean tools in its internal supply chain. The implementation started as local rollouts of basic tools, such as performance boards, and problem-solving tools. Seeing promising results and the potential for increased gains through a more coordinated effort, the company formed a dedicated Lean Office in 2014. The Lean Office was operational until 2019, when executives announced its termination as part of a broader strategic move, which also implied a general reduction in staff across the organization. The corporate level officially deemed the Lean transformation a success and announced that it now expected the line of business to sustain the tools and routines the Lean Office had introduced. The current PhD project stretched from 2018 to 2021. Data collection occurred during the period when the Lean Office was still in place as a centrally managed department operating across company regions.

During the years of operation, the Lean Office orchestrated a global Lean transformation, aiming to implement its natively designed Lean Production Management System in all departments of the supply chain. The Lean Office designed the system with support from external consultants. The consultants had a background in the Danaher Corporation, a famous and respected name in the Lean world. The development of the Lean management system was a response to an ongoing concern for the Lean Office to instruct and motivate the organization to correctly perform Lean so as to create 'real value.' The Lean management system, however, produced new problems, which was sometimes summed up as a dual concern. 1) the implementation of Lean tools and 2) realizing the Lean-based value potentials by ensuring that the organization actually followed the action plans produced from the Lean activities.

The Lean management system grew to become quite elaborate, as the Lean Office had high ambitions for its endeavors. The Lean management system provided detailed prescriptions on how to conduct improvement work. It also prescribed general standards for management behavior, such as how to structure daily activities, and how to relate to employees. Lastly, the system prescribed how upper management should conduct its strategic processes and set goals in and across supply chain areas. The Lean Office visualized their Lean management system with the use of a visualizing figure of three "windows". 'the operational window,' 'the tactical window,' and 'the strategic window.' This visualization was used when arguing that the organization should treat Lean as an interconnected organizational system to unleash its true potentials.

The 'strategic window' provided approaches to define corporate-level quantifiable goals for supply chain optimization. For this, the Lean Office would use a so-called X-matrix tool based on an Excel spreadsheet designed for discovering, representing, and tracking the development of the strategic initiatives. Completing the X-matrix was time-consuming and demanded both thorough data extraction and analysis plus multiple decision-making steps. Its benefit was that it provided a detailed stepwise action plan with quantified goals to steer the strategic process across regions over the span of a year. The strategic window thus provided tools to facilitate the development of shared goals across the organizational hierarchy—from shop floor workers to middle managers and higher-ranking executives. Further, it provided a means for governing and monitoring the improvement processes after the goals had been defined.

The 'tactical window' focused on translating the strategically defined goals into actionable 'missions.' The Lean Office would approach the missions through its event-based change management technique, the RIE, one of the two change management tools in focus in the dissertation. The Lean Office would monitor the missions' progress through mission control. In a tangible sense, mission control—a board that was around ten meters long—was hung at the physical domicile of the Lean Office. Here, each mission would be presented by an A3 story board (a standard visualization technique in Lean), and its progress would be tracked through various representation tokens. The mission owners, managers, and executives overseeing the missions gathered here for weekly meetings to discuss the progress of their missions and take action when necessary.

Lastly, the 'operational window' of the Lean management system addressed the daily operations in the line of business. The goal here was to help workers and managers to 'see their problems and continuously improve their current state' (a standard Lean phrase). This translated into mandating the line of business to formulate key performance indicators (KPIs) for safety, quality, delivery, economy, and well-being. The Lean Office meant for the KPIs to help local managers identify pressing problems and focus on what was most urgent. The Lean Office educated and coached the managers on how to set up and use the Lean tools and introduced routines to ensure that they used the tools in a consequential and systematic fashion. A so-called daily diary was introduced to the managers containing predefined standards for how the shop floor managers should schedule their daily work in the timeframe from 07:00 AM–11:00 AM. A Lean maturity model was introduced as a tool to facilitate the assessment of the Lean performance of managers at four levels of the organization. To boost Lean maturity, Lean partners and local Lean anchors (personnel in the line of business with a dedicated focus on supporting the Lean system locally) audited level one and level two managers and instructed senior managers to audit their subordinate managers' Lean performance as well. To further support the development of the managers' Lean maturity, the Lean partners introduced a tool called the "Tactical Implementation Plan" (TIP). This was in the form of a spreadsheet designed for the managers to formulate and track the development of certain improvement areas regarding their personal Lean maturity development. The Lean Office expected the managers to monitor their progress on the TIP and take action if they did not advance as expected.

In summary, the Lean management system grew to become a quite elaborate interwoven system of tools. The story of the Lean management system both provides context for the case while exemplifying how change management tools can grow into becoming complex systems that can end up producing various intended and unintended effects on the organization. Some of the unintended effects wound up being framed as problems relating to resistance to change.

3.2 My entry to Novozymes accompanied by a serious game

The Lean Office began associating the dual concern with change management, and therefore became preoccupied with line managers' change management competencies. With my PhD project, I was mandated to study the Lean-related change management challenges and consult the Lean Office on remedying resistance.

To grasp the context of this dissertation, it is important to note that my position as an industrial PhD was enabled through my prior job as a research assistant on the CCI. The CCI was an organizational intervention experiment designed to study whether serious games could develop change management competency, and whether the intervention would affect the psycho-social work environment. The change management consulting firm Workz, appearing to be a best-in-class solution provider within the discipline of game-based approaches, was invited to deliver the intervention using their standard tools. Novozymes was invited to participate, making the Lean transformation the object of intervention. The intervention design was a five-day game-based change management education, which would be given to managers and Lean-related personnel. The scope of the intervention was 10 departments across the supply chain, including 35 managers and 695 employees. The 10 departments were randomized and half was selected to get the intervention, while the other half acted as a control group for doing quantitative analysis. Two rounds of game-based education were conducted with 2 departments participating in each round. About 25 managers and Lean-related staff participated in each workshop. The intervention was spread over two months. In this, the participants would receive a two-day workshop based on the change management simulation Wallbreakers, and a one-day workshop based on the stakeholder management simulation Gamechangers. Eventually, the participants would be invited to follow-up workshops, designed to recap what was learned and ensure that the participants would revisit the action plans made during the game-based workshops.

The current PhD project was formulated as a continuation of the CCI, although it was a separate project. I kept my data access to the CCI during my PhD. The key questions Novozymes posed to me can be summed up as: whether and how serious games presented a viable way for them to facilitate change, and what they should do to make the organization buy into the Lean management system. My goal was to study how further value could be extracted from the CCI by considering how to adapt the tools to the company-specific needs. Further, I was to study the resistance to Lean and experiment with ways the company could overcome the resistance. From the onset, the PhD project was formulated as a controlled organizational intervention, inspired by the procedure of the CCI. I spent quite a lot of time developing tools and piloting them in practice, but eventually, I abandoned the ambitions of a controlled intervention, as circumstances ceased to favor it. It was part of the agreement when the PhD was launched that I would be an interventionistic, not just a silent anthropological observer. For this reason, I developed into a kind of internal consultant invited to discuss big and small Lean issues.

I ended up spending months doing 'participant observation' (Bogdewic 1999) studying the Lean transformation at the shop floor, in RIE workshops, and in the Lean Office. This was often done by me 'hanging out,' as an approach to get a sense of what was going on (Dingwall 1997). As things evolved and my presence naturalized, I became more and more active in the activities. I facilitated Wallbreakers workshops, participated in Lean maturity assessments, reflected openly on meetings with the Lean Office, developed tools, coached managers, reflected with workers on interpersonal conflicts among staff, and orchestrated a value stream assessment to refocus the Lean work in a local department. Obviously, my interventionistic engagements in Novozymes often crossed the boundary of regular observation-based qualitative research as prescribed in the literature (Bogdewic 1999). I found inspiration for reflecting on my practice in the notion of doing 'situated intervention' (Zuiderent-Jerak 2015) and being a 'reflexive practitioner' (Cunliffe 2016). At the end of the day, however, my participant observation was unlike what I found in the literature. I felt called to rely on my intuition for delivering timely responses to the spontaneous questions, which made it impossible for me to stay true to the virtues of non-intrusiveness or careful engagement during data collection. I realized that my becoming as a research practitioner turned me into something akin to Barnard's (1938) practitioner first, researcher second. This unique position certainly offered me an interesting angle for doing research. However, it was also difficult to maneuver, especially because my research focus was split between a backward-looking perspective on the game intervention, and a current perspective on the Lean issues right in front of me.

I knew that I eventually had to narrow my research focus considerably if I was to deliver on the task of writing a dissertation with a consistent perspective. As a practical consequence, I decided to cut off my practice engagements from the focus of the dissertation. Although it pains me, I realized that this was where the concentration of tangible data was thinnest, which would make eventual proofing of claims in publications difficult. Instead of trying to incorporate everything into my formal analyses, I decided to take a very narrow focus on the managers' way of relating to the tools, settling on the arrangements of Wallbreakers and the RIE for doing this. I unfold my reasons for this decision in what follows.

3.3 Narrowing the focus to the relationship between tools and change managers

As a way of narrowing my research focus, I allowed myself to follow what I found interesting, puzzling, and surprising (Mol 2010). I began noticing the similarities between the game world and the Lean world. Both worlds constructed reality through visualizations, metaphors, and narratives and functioned by structuring rituals performed as collective action guided by playbooks that channeled reflection, interaction, and decision-making in specific ways. Both worlds rely on the organizational actors playing along with this artificial reality as a way of facilitating a purpose-driven engagement on serious organizational matters. As I began loosening up on vastly differing and quite heavy connotations of the labels 'game' and 'Lean,' it struck me that the two tools for working with change management had much more in common than is typically recognized[4]. I took an interest in what this artificial reality did to change

[4] The word 'typically' refers to the common understanding of the ludic connotations of games and the connotations of industrial optimization connoting Lean. Historically, however, there is much convergence between organizational

management processes and the engaged actors. This led me to notice that the tools sped up communication, allowing the actors to speak efficiently about their problems and how to resolve them. However, I also noticed how artificial realities presented occasions for confusion. The mundane experiences of organizational reality did not always fit with the artificial reality portrayed by the tools, which could give rise to frustrations, conflicts and surprising ways of relating the tools. Below, I present an example of the kind of observations that spurred my curiosity.

The Lean Office designed the maturity model to represent departments' Lean maturity as a score between one and four. The score was given on three criteria related to the use of certain Lean tools: performance board, problem-solving, and process confirmation. The model aimed at assessing the managers' ability to use Lean tools and assess whether the 'Lean thinking way' was guiding the managers' actions. The Lean Office developed the model to provide answers to questions on when to consider the Lean implementation a success and to help identify the managers who needed additional coaching and education. The Lean Office declared that the goal of the implementation was to reach maturity level three across all departments in supply chain operations by the end of 2020. In this way, the maturity model allowed for an explicitly defined end goal and a means of tracking implementation progress.

However, the maturity model led to some tensions. Managers in the line of business began questioning how they should interpret the model. In particular, the managers were confused about the task they had been given—to encourage the "Lean thinking way" when facilitating performance board meetings. What exactly did this imply? The lack of clarification allowed local interpretations to emerge, leading some department managers to conclude that they were complying with expectations only for them to be disappointed when met with the resulting Lean maturity assessment. The line of business demanded a fuller description of what the term "Lean thinking way" meant. The head of the Lean Office raised the question at an off-site meeting with the global Lean team. The discussion revealed that the Lean partners operated with different understandings of what the phrase meant. The confusion in the room somewhat echoed the cacophony of the Lean literature. Did the phrase refer to one or the other classical Lean principles (Womack and Jones 2003), or did it refer to some of the more recent developments in the Lean industry (Rother 2009)? The team did not reach a conclusion that day, as other points on the agenda were more urgent. They agreed to elaborate on the descriptions of the different levels of the Lean maturity model and to circulate the definitions among the Lean partners to reach a conclusion over time. In the meantime, the maturity model began causing other problems. As the Lean maturity deadline moved closer, senior managers and the Lean Office put more and more focus on the progress of the Lean maturity score. Senior managers began questioning why there was such a noticeable difference in Lean maturity scores among the

optimization technologies and game technologies, but some historical tracing is needed to make this point clear (see Pias 2017 for a thorough and convincing account on this).

company's global regions. Why were some doing significantly better than others? This focus on the Lean maturity score on the part of key decision makers seemed to fuel a degree of competition between departments, regions, and even between the Lean partners covering the different regions. Demonstrating a high Lean maturity score has become very important for many actors. As the competitive atmosphere strengthened, some began calling into question the validity of the Lean maturity assessment. Some asked whether it was fair to assume that Lean maturity meant the same across company regions when taking into account that the Lean partner who conducted the Lean transformation also had the mandate to give the Lean maturity score. In other words, were some regional Lean partners using Lean maturity to claim unwarranted success? Or was it again the heterogeneous understanding of Lean maturity that was at play?

The examples illustrate how Lean-based reality construction was simultaneously entangled with various elements in the organization. The maturity model surely put Lean on the agenda, and enabled a sense of developmental progress in relation to the Lean implementation and a sense of urgency, but it also bred confusion and intermingled in both social dynamics and managers' self-assessment. The unintended effects of the maturity model were a surprise both to me *and* the Lean partners. Noticing this mutual surprise and confusion informed me that I was on to something interesting regarding the theme. The story about the Lean maturity model is one among many examples that informed me to study change management tools' organizational effects in detail. As I was mandated to investigate a change management tool's effects on change managers' use of change management tools, it appeared appropriate to make the tool–manager relationship the core focus of my research.

3.4 Selecting Wallbreakers and the RIE as case material

The amount of my data far exceeded the time I needed to analyze them. I had to decide what to focus on. To allow for in-depth analysis of tool-manager interaction, I decided to focus on two types of tool-based interaction that had received significant attention in the company, and on which I had extensive data. These were the serious game Wallbreakers and the RIE. The company used both tools in workshop settings, which allowed me to follow their usage while taking extensive notes on my laptop, taking photos and capturing the interaction on video and audio recordings. The workshop setting also allowed me to avoid the fear of missing important events. The two workshop formats further made an interesting fit, as they were both miles apparat in terms of what they connoted of seriousness versus play, while also strikingly similar in terms of the mechanisms of their technical arrangements. I had the sense that studying one would enlighten me on the functioning of the other, and vice versa.

Wallbreakers is a serious game (Abt 1987) intended to educate managers in change management (Workz 2017). The game simulates organizational change and allows organizational actors to experiment with the simulation to learn how to become better change managers. Wallbreakers has been designed by the Danish-based change consultancy Workz, an offspring of the film production company Zentropa. Workz specializes in providing board game-inspired solutions to educate private and public organizations on business matters, such as change management, stakeholder management, remote team management, and project management. Workz uses games and related tools to facilitate change processes for private and public organizations internationally. Wallbreakers is by far Workz's most popular tool. Over the years, the game has attracted a broad audience and has frequently won awards for its designs. As such, Workz has become an established and significant actor in defining the current market for change management tools.

The RIE is a variation of the famous Kaizen event (Womack and Jones 2003). The RIE unfolded as a standardized workshop concept designed to guide a workgroup through the process of identifying root causes and developing solution approaches to address the identified issue, all within a one-week time frame. The RIE was developed and introduced to Novozymes by the Lean consulting firm Simpler, an offshoot of the Danaher Corporation now under the umbrella of the IBM Company.

The two cases supplement each other well. Wallbreakers presents a case of how a change management tool is used to educate and change the change manager. The RIE presents a case in which the change manager engages with change management tools to enable improvements and changes to the supply chain. Thus, the two cases provide two related but different impressions on how change management tools affect change managers.

3.5 Data collection

I collected the dissertation's data in the period from March 2017 to July 2019 (see Table 2). Most of the data gathering occurred at Novozymes' sites in Denmark. The data consisted of a mix of observation styles—silent observer, participant observer, and interviews—all relating to Wallbreakers and the RIEs. The bulk of the dataset were video and audio recordings of the game workshops, accompanying interviews with participating managers, and the field notes taken during the workshops. Secondarily, I draw on field notes and audio recordings from three RIE's that I observed. My observation in both types of workshops was explicitly non-intrusive and non-participatory—a type of 'undisguised naturalistic observation' (Price *et al.* 2017). After I decided on my cases, I decided to focus fully on obtaining rich data in these specific pockets to ensure that I had an adequate amount of data on which to write the dissertation. The dissertation's articles make use of only a fraction of my vast and heterogeneous dataset. I also gathered a range of additional data, which I will abstain from describing (see Table 2). Below, I will present the data collection for each of the two types of tools, emphasizing that my data have been both experience-based and material.

3.5.1 Data collection on Wallbreakers

The first kind of data I gathered on Wallbreakers was experiential. My first encounter with Wallbreakers was a first-hand experience with the game, during participant observation at one of Workz's product demonstration events. This provided me with hands-on experience playing the game. Here, I sensed the pressure of decision making in the game. The data points here were the emotional responses in my own body. Later, I completed a course on how to facilitate a Wallbreakers workshop, which provided insights into how the consultancy thought about facilitation techniques and how the consultants thought of the way they enabled learning. Here I produced handwritten notes. I attended several events with Workz, which provided me with insight on how they presented themselves, promoted their games, and justified their designs. Here again, I produced handwritten notes. The CCI provided me with a compact experience of four full days of Wallbreakers workshops. Lastly, I facilitated Wallbreakers workshops at Novozymes on different occasions, which gave me an opportunity to experiment with the game's effects in various situations. These multiple encounters gave me a multifaceted range of first-hand impressions that affected my thinking.

The collection of qualitative data for the CCI was quite extensive. Seeking to obtain a rich dataset on the actual workshop practices, the project manager and I decided to audio- and video-record all the workshops. We placed a GoPro camera in the upper corner of the workshop rooms, and we placed audio recorders on two of the participants' tables to capture the conversations. During workshops, we would sit at each of our audio recorders and do field notes on the events at the table. Gathering both audio and video enabled us to zoom in on smaller events with smaller time frames and to analyze the subtle interactions occurring at the different tables.

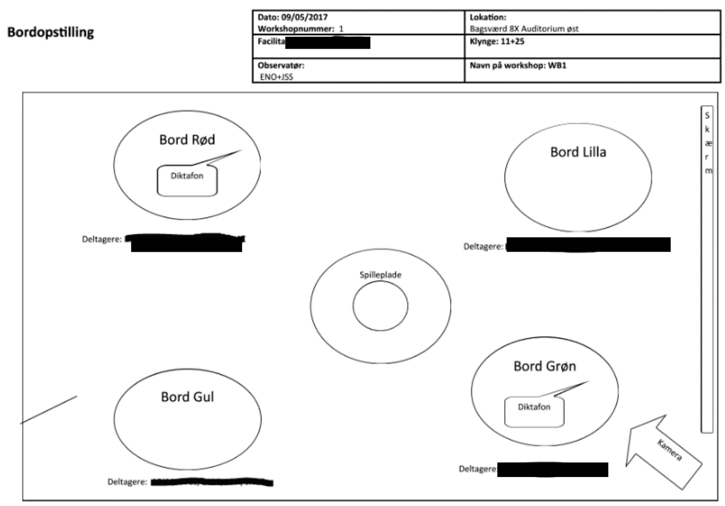


Figure 3 Sketch of physical workshop setup.

To retain knowledge of who participated in the workshops and where they were located in the workshop space, we sketched the workshop space for each workshop and recorded the names of the participants at different tables (see Figure 3). We wanted to acquire field notes that could help us identify surprising events and enable us to trace back through the many hours of workshop recordings in a speedy fashion. To aid our note-taking, I made a tool consisting of a table with headings, the exact time of the event, an objective description of the event, and the researcher's thoughts on the event (see Figure 4). Our intention was to ensure a consistent approach to writing field notes to enable us to manage our data faster. We merged and synchronized the sound recordings onto the video recordings and uploaded the files to NVivo. The CCI yielded a total of about 128 hours of audio recordings across the two audio recorders. We did not have the resources to have all of it transcribed, nor did we see the purpose of it. Instead, we selected the sound bites we found interesting based on our experiences and field notes and transcribed them ourselves or with the aid of research assistants.

We also wanted to know what the participants thought about the workshops. We wanted to capture both their immediate impression of the workshops and a retrospect perspective on learning outcomes months after the workshops had been completed. After each workshop, we selected five participants and invited them to participate in a 20-minute phone interview on the subsequent work day, which we also audio-recorded. Here, we followed a simple interview guide, asking for their immediate impression of the workshop, key learnings or takeaways, and points of critique. Four months after the last workshop was held, we interviewed all manager participants again to acquire information on how the workshops had affected their ways of thinking and working with the Lean implementation. These interviews lasted about 40 minutes each. We uploaded all interviews to NVivo and transcribed them. Lastly, we interviewed consultants who facilitated the CCI workshops plus the designer of Wallbreakers. Similarly, these interviews were transcribed in NVivo.

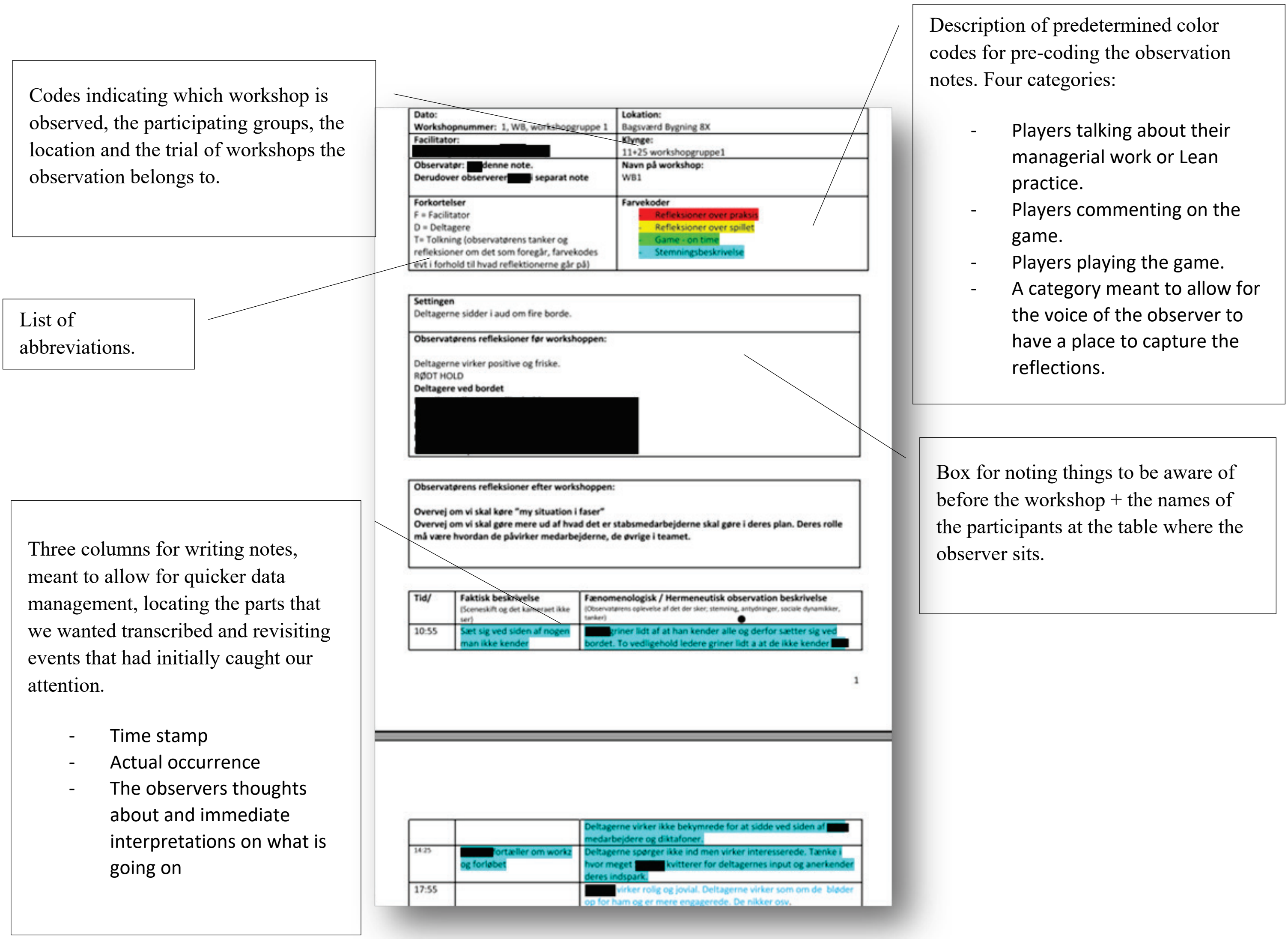


Figure 4 Sheet for fieldnotes.

3.5.2 Data collection on the RIE

To obtain data for the study, I observed three full-week RIEs during data collection. During these RIEs, I took field notes on a computer using a table similar to what I had used during the Wallbreakers workshops (see Figure 3). During my observations, I strived to remain quiet as much as possible. One of the RIEs was audio-recorded, and I took field notes during the other two. To manage my data, after each completed RIE, I read and edited my notes and inserted the photos I had taken into the document accompanying the text. This amounted to three documents consisting of 120 pages, in addition to 40 hours of audio. I uploaded the notes and audio recordings to NVivo, which I used for data management and analysis. The analysis had three stages: finding and selecting episodes, coding the episodes, and writing up the analysis.

	[redacted] kalder time-out 50:00	
RIE 1.2 1:35	**Fiskeben** Opstart efter pause. Facilitatorer, [redacted] har sparret om faciliteringen i pausen [redacted] kan vi skabe et overblik over realtid og planlagt tid [redacted] griner det er det jeg hra sagt Bla bla bla [redacted] skriver top tre pr linje	Framing af fiskebens øvelsen skal være mere klar / transparent. Der er et overlap/repetition mellem trin, som skulle have været en tragt.
	[redacted] kommunikationen mellem produktion og SCO. [redacted] foreslår at [redacted] tiderne justeres så det bliver klart hvilke produkter der kommer hurtigere end de 14 dage der er sat af til det. [redacted] skriver [redacted] gæt er forkerte. God refleksion om kommunikation [redacted] løsning Fælles KPI på tværs [redacted] foreslår prøvetagning som man gør på [redacted] Alle er enige. (Yokoten) Kalder til pause kl. 15.08	Fiskebens øvelsen er en brain storm! Udfold det interessante/vigtige problemer. Anerkend og spring videre fra det uinteressante / urealistiske løsningsforslag (fx flere mand ny fabrik). Det fanges alligvel i prioriteringen senere.
RIE 1.2	Pause, [redacted] og [redacted] reflekterer ved fiskebenet mens deltagerne holder pause.	

Figure 5 Screen dump of field notes.

The left-hand column contains time. The middle column contains my notes on the event. The right-hand column contains my reflective notes.

Themes	Activity	Observation style*	Hours**	Gathererd data	Used in articles?	Year
Serious games	Executive management team playing Wallbreakers and dicussing Lean implementation	UNO	4	Computer written notes	No	2017
	Wallbreakers and Gamechangers facilitator training workshops, at Workz	PO	21	Hand written notes	Yes	2017
	CCI workshops with Wallbreakers, Gamechangers and Follow up workshops	UNO	64	Hand written notes, audio + video recordings	Yes	2017
	Customer relations events at Workz	UNO+FA	14	Hand written notes	Yes	2017-2018
	Interviews with managers participating in CCI	IN	85	Audiorecordings	Yes	2018
	Wallbreakers workshops with customer relations team and as launch of a global digitalization project	FA	35	N/A	No	2018
	Tool development in corporation with Novozymes, Workz and NRCWE	IN	80	Audio recorded	No	2019
Lean at shop floor	Observations of Lean tools in use at shopfloor	UNO	7	Hand written notes	No	2017
	Full week Lean Maturity Assessment excercise with Lean anchors	PO	37	Computer written notes	No	2017
	Lean maturity assessment, China based worksite	PO	7	Field notes	No	2018
	Field work of assessing, intervening and developing tool at one production department	PO+FA	444	Computer written notes	No	2019
RIE	Full week observations of Rapid Improvement Events	UNO	120	Computer written noes and audio recording of	Yes	2018-2019
	Virtual follow up meetings with RIE team after the RIE	UNO	4	Computer written notes	No	2019
	Interviews with participants and RIE affected employees after RIEs	IN	15	Hand written notes	No	2018-2019
Other	Lean Core meetings: Coordinating and discussing Lean implementations with Danish Lean anchors	PO	30	Computer written notes	No	2018-2019
	Off-site meetings with Lean office with global Lean office. Strategic discussions on implementation	PO	70	Computer written notes + images of materials	No	2018-2019
	2 day observation of a work place culture intervention workshop	UNO	14	Computer written notes + images of materials	No	2018-2019
Total			1051			

*Obserational style abbreviations: (Undisguised naturalistic observation = UNO) (Participation observation = PO) (Facilitiation = FA) (Interviews= IN)
** Some of these are rough numbers

Tabel 1 Data overview

3.6 Different research personae for different articles

In this section, I present my methodological approach to my data. In doing this, I reflect upon positioning my inquiry in performativity and the way I have balanced theoretical consistency and methodological flexibility across the dissertation's three papers.

When engaging with the performative perspective, some consideration is needed, as the performative literature does not offer social scientists firm guidelines on how to conduct a study in its spirit. This challenged me throughout my research. Over the course of the data collection, I developed methods suitable for each particular study. In retrospect, I recognize that in terms of methods, the three articles are quite different, although they all share a common grounding in ideas, sensitivities, and concepts from performativity literature. I think of my research as grounded in a theoretical body, with three different methodological heads performing three different research personae in the three papers. An idea I derive from Ossandón (2019).

Callon (1998a) is one of the key contributors to the performativity literature. In particular, his book, Laws of Markets', has been highly influential, a sort of methodological and theoretical lighthouse for thousands of performativity studies (Cochoy 2014). Ossandón (2019) asked what performativity studies are *after* performativity became a conceptual and methodological fact through the Laws of Markets. How has this book influenced the methods used in subsequent performativity studies? Ossandón concluded that the book has inspired the development of many different kinds of methodological approaches. Even Callon himself seemed to find different methods for doing research after Laws of Markets while still staying true to—and building on—his original ideas.

Ossandón (2019) proposed thinking of this as Callon performing different research personae in different performativity studies. This appears to be a general trait of performativity studies, in that multiple research personae are identifiable across the various outputs of the research stream, and across the authorships of single authors. Recognizing this reminds us of the untamed nature of the methodology of performativity studies and actor-network theory. I contend, however, that the multiplicity of research personae is not a problem per se, though newcomers may find it baffling. The multiplicity is one of the forces of performativity studies enabling an ongoing expansive exploration, which prevents the tradition of succumbing to the repetitive exploitation of engrained couplings of concepts, matters, and methods. The multiplicity of research personae could be considered a core trait of performativity studies, which enables it to preserve the famed 'avant-garde spirit' (Bueger 2013, p. 338) as the open-ended approach to methodology increases the chances of stumbling over new surprises.

The following sections present how I conducted my studies, with inspiration from performativity literature and actor-network theory. The sections present each of the three research personae I have performed throughout the dissertation's three articles. These are the reassembler, the detective, and the practice consultant. In the following, I will describe how actor-network theory provides a foundational inspiration for my three personae, giving them a base of methodological consistency beyond what is provided by the conceptual apparatus, which they, of course, also share. The description of the research personae comes afterwards.

3.7 Foundational inspiration related to actor-network theory

The three articles were produced with common methodological inspiration from actor-network theory (Latour 1996, Justesen 2020). Actor-network theory is a branch of the social sciences, which has garnered recognition as a distinct theoretical perspective in the study of organizations (Vikkelsø and Langstrup 2014). In the context of organization studies, actor-network theory has been used to study various topics, such as annual reports (Justesen and Mouritsen 2009), work environment (Abildgaard and Nickelsen 2013), consulting engineers' innovations (Bendixen 2007), Lean implementation (Langstrand and Elg 2012, Hansen and Clausen 2017, Caldwell and Dyer 2020), and more. As noted, actor-network theory and performativity have close theoretical ties. Performativity can be considered as an offspring, or a 'fractal' of actor-network theory (Ossandón 2019, p. 56). Rather than pretending to rely strictly on some canon of 'true' performativity (Gond *et al.* 2016), I find it reasonable to think of performativity more broadly, and in this acknowledge how actor-network theory has co-constituted my analytical perspective.

As in performativity studies, actor-network theory does not provide a single perspective or a smoothly prescribed methodological approach; however, it presents certain sensitivities, practical approaches, and theory-based notions for thinking about the hybridity of the social and the material (Latour 2005, Mol 2010, Justesen 2020). I will highlight three general points that I gathered from actor-network theory, which I consider relevant across the three articles. These are the network notion, the notion of non-human agency, and the methodological approach of being sensitive to surprises.

The network notion

The network notion is central in actor-network theory and continues to be discussed (Jensen 2019). Following a network notion, a phenomenon such as change management is constituted through an association of things, people, and performances that mutually constituted and translate each other (Latour 1984). No object is inherently stable, according to a network notion. Rather, objects are 'networky' (Latour 2005, p. 178), and their existence must be understood through their way of relating to other elements. This implies that the social scientist must approach the research object, presuming that it owes its ability to act to its constituting network, which, however, cannot be known in advance.

> 'A network notion […] has no a priori order relation; it is not tied to the axiological myth of a top and of a bottom of society; it makes absolutely no assumption whether a specific locus is macro- or micro- and does not modify the tools to study the element "a" or the element "b"; thus, it has no difficulty in following the transformation of a poorly connected element into a highly connected one and back.' (Latour 2017, p. 5)

Actors, according to actor-network theory, are by definition 'hybrids' (Latour 1993) as their very existence depends on their constitution with other actors. A network should be considered inherently unstable, something akin to Deleuze's notion of the rhizome (Latour 1996), a bustling heterogeneous connective ensemble that continues to rewire (Deleuze and Guattari 1980–1987). The network is not pregiven. It has no apparent surface or a clearly demarcated outside. Therefore, the network notion also serves as an analytical heuristic, as the network depends upon description (or other means of representation) to become stable (Latour 2005, p. 129). Thus, network description is considered a viable methodological approach in actor-network theory. With this as the starting point for an analysis, the social scientist must become sensitive to the connections that constitute the agent's ability to act, how agents connect, and how the network finds pockets of stability.

The non-human agent

Next, actor-network theory inspires consideration of non-human agency (Latour 1992). A notion of non-human agency implies thinking of material objects as agents that act, not merely as passive objects that are acted upon. This notion is intended to shift the social scientist's analytical gaze from the presumptions regarding the hierarchy of actionable agents in a network. From this perspective, a business simulacrum is considered an agent co-constituting a network while also being constituted by it. The non-human agent is also 'networky'. The task for the social scientist is to describe relevant non-human agents when giving an account of the social and to show the constituting effects of the action on the network. 'A good ANT account is a narrative or a description or a proposition where all the actors do something and don't just sit there.' (Latour 2005, p. 128). This sensitivity to nun-human agency poses new questions for social studies, as human agency becomes an effect of a hybrid constitution. A man picking up a weapon makes him a 'gunman'; thus, he is reconfigured by the non-human agent (Latour 1994).

Sensitivity to surprise

Actor-network theory inspires social scientists to think about their subject matter in new ways. For me, this encouragement implies approaching the serious games and the Lean system not by reproducing current conventions but rather by challenging them. One way of operationalizing this scientific intention is to be sensitive to events that surprise and to approach them with curiosity, as cracks through which the researcher can see an object's constitution differently. With inspiration from anthropology, actor-network theory encourages the social scientist to study networks with the same attitude that an anthropologist would study an exotic tribe, carefully monitoring artifacts and practices without presuming the significance of the act (Latour and Woolgar 1979, p. 28). In the words of Mol (2010, p. 261), in actor-network theory, 'surprises are never banned. Instead, they are attended to.' Sensitivity to surprise is an approach that encourages the researcher to search for cracks, rather than smooth surfaces, to obtain new insights that may challenge common expectations. Thus, actor-network theory intends to push its analyses beyond the 'settlement of epistemology' (Latour 1999a, p. 13) by following surprises, for instance, a frog in the study of a building project (Tryggestad *et al.* 2013).

The three methodological notions—network, non-human agent, and surprise—capture well the common base of my methodological approaches. It is important for me to recognize that I could not have made any of the analyses had I not been under the influence of the certain mix of theoretical concepts that I have presented up until this point. The following sections present the three research personae that I have performed in the different articles, providing details on my operationalization and my import of theoretical concepts.

3.8 Research personae

Below, I describe my three research personae. Each description presents the considerations and actions that led me to my results. The research personae are backward-looking descriptions that merely serve to organize my account of my different methods across the three articles. Thus, I did not think of myself as performing different personae at different times. In retrospect, however, I see that I did.

3.8.1 The Reassembler

My first research personae, *the Reassembler*, appears in Article 1, which examines Wallbreakers' constitution of change management. I chose this name to connote a method of disassembling something and reassembling it in the context of a new conceptual understanding. In this article, I wanted to understand the Wallbreakers' design and how I should think of its various figures, metaphors, and mechanics potentials for affecting change managers. Initially, I was inspired by the notion of 'unscrewing' from actor-network theory originally introduced as an approach to study macro-actors, such as a company, a city, or a society, while avoiding a misguiding distinguishing between micro and a macro (Callon and Latour 1981). Unscrewing demands untangling the agential relations that enable a collective form and performance to be sustained. This methodological principle has been relevant in technology studies, such as De Laet and Mol's (2000) study of the Zimbabwe bush water pump. The authors' interviewed users and producers of the pump; they studied the pump's manuals, visited the factories where it was produced, and watched how it performs in action at various sites. The paper provides the reader with a thorough description, accompanied by images, and uses this to theorize on the boundaries of technology. I think of this re-theorization of a disassembled as reassembling. The inspiration for this particular word stems from Latour's (2005) 'Reassembling the social,' which was an actor-network re-theorization of society as a heterogeneous collective. Coining my persona 'the Reassembler' is an acknowledgement of these influences from actor-network theory, which has guided my thinking of how to approach Wallbreakers analytically.

To structure my disassembling method, I decided to follow the notion of translation as used in actor-network theory. Simply put, translation refers to 'processes in which one thing is turned into another' (Law 2004, p. 60). As an analytical notion, translation refers to 'studying *how* links and equivalence are created between different actors and how they come to form a cohesive order despite their heterogeneity' (Justesen 2020, p. 332). Translation offered me an idea for an approach of following the traces and points of translation that had made the game exist in the form it did.

The analytical process included three stages. Of course, a description of my analytical process as a three-step process is a simulacrum, which covers the fact that the analytical process was not exactly a linear process with clearly separated steps. The three-stage description, however, helps the reader get a sense of what I did.

1) Writing down events and relations that surprised me. This preliminary analytical stage narrowed my analytical interests, and would later guide my coding.

2) Describing the network and coding the material. In this stage, I selected the data that would appear in the article, and presented it to myself through description.

3) Writing up the analysis through an abductive process inspired initially by a notion of 'figuration' from Suchman (2012) and later Lyotard's (1971–2011) concept of the figural.

Stage 1

During the first stage, I became preoccupied with the childish and ludic aesthetics of the game as a contrast to the serious subject matter it encouraged managers to discuss. I was impressed by the engagement the tool seemed induce in the managers but was also surprised to see the range of conclusions the managers seemed to leave the workshop with. I wrote down my own hypotheses about why the game had come to look and function as it did, noting similarities and discrepancies between the game design and the consultants' presentation of it. I gathered hypotheses on design principles, observations of the translation process, and more loosely associated elements.

Stage 2

During the second step, I coded my data, which implied ordering dispersed recorded elements within thematic clusters that I found interesting and wanted to understand better. Notably, I wanted to study the game's visual and metaphorical figures (busses, resistance models, etc.). I found inspiration in a notion from Suchman (2012, p. 49), that figuration is "an action that holds the material and the semiotic together." I applied this thinking to my data, and began seeing the game as performing different figures of change management, and that these figures were outcomes of a figuration process of merging a visual and a discursive element. With this in mind, I went on to describe the network, which for me meant identifying and describing its figurations.

I did this thematic clustering by describing each visual element of the game to explicate their function in the game, and the elements through which they had become stable. For instance, the figurine of the employee in the game was connected with descriptions of the employee in a booklet, which connected with Myers Brigg's person-type indicator, which has been met with heavy critique in academia, although highly used in business practices. By writing up such an account of the relations of the different elements of the game, I gathered a thick description, which I would use later in my analysis. The description, however, also left me with certain gaps that I wanted to fill. The description process made me interested in both the figuration process and the game's underlying didactic principles. I used the interview with the designer to fill these gaps in the network description by making it a semi-structured interview (Kvale and Brinkmann 2009) to ensure my questions would be covered. The interview provided an account of Wallbreakers' genealogy and the translation process that led to its stabilization. Moreover, it provided insights into how the designer thought about the game's mechanics. I did a simple thematic coding (Boyatzis 1998) of the interview to identify parts of the interview that were useful for my questions on themes such as sources of inspiration and game mechanics (see Figure 6).

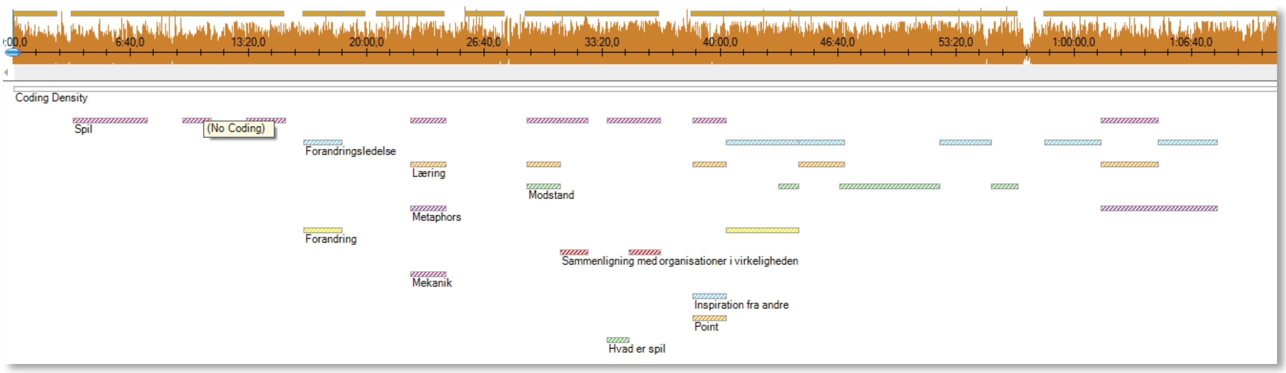


Figure 6. Screen dump from NVivo 12 showing thematic codes appearing in the first half of the interview with the game designer.

Stage 3

The third stage of my analytical process was abductive in a sense (Pierce 1978, Alvesson and Kärreman 2007). I read the literature on change management that the game designers had referred to as their source of inspiration to gain insights into the discourse the designers had translated in making the game. I also reviewed the academic literature on change management, serious games, and leadership development to gain a sense of the debates in the overlapping domains. Eventually, the body of literature I was engaging with grew too large, and I decided to narrow my focus down to unresolved tensions related to the dangers of simulation-based education in general and specifically in leadership. Initially guided by Suchman's notion of figuration, it seemed appealing to follow a feminist reading of the game following her footsteps (Suchman 2016, 2020). However, I gradually developed dissatisfaction with the perspective, as I felt it did not help further on my interests but rather posed me with normative suggestions, which I felt limited analytical horizon. I found inspiration for thinking differently about this by approaching the game through the concepts of 'simulacrum' and 'provocation' encouraged by my supervisor (Lezaun *et al.* 2013). This sent me down a rapid hole, which reconfigured my view on the figures I had described, and enabled me to write up a first draft, which I submitted to the Journal of Cultural Economy. The journal's reviewers encouraged me to pursue this perspective while also considering Lyotard's relevance in my analysis[5]. This sent me down another theoretical rabbit hole, which led me to reconfigure the analysis once again, this time considering the more profound implications of provocation in the case of Wallbreakers. This finally provided me with the analytical tools for writing up my analysis, in which I reassembled Wallbreakers by theorizing about the performative potentials of the various agents through Lyotard's (1971–2011) notion of the figural.

3.8.2 The Detective

In Article 2, I perform the research persona of The Detective. In this paper, I study how Wallbreakers enable transformations of change managers. I decided to pursue this question by tracing events associated with an observable change occurring in the participating managerial subjects. Again, actor-network theory provided inspiration for this approach, particularly the notion of '*tracing of associations'* between heterogonous elements to examine social dynamics (Latour 2005b, p. 5 italics in original).

Having participated in all the workshops, I had a good sense of what had happened and the ebbs and flows of intensity and surprise. Two particular incidents, with remarkable changes presumably relating to the game exercise, stood out for me, both revolved around the same managers, Erica, and her superior Bruce (names are pseudonyms), who in the final workshop expressed that they had come to change how they

[5] Note that it is a common step in academic abductive processes that the author responds to reviewer and adapts the methodology to the inputs (Blok *et al.* 2019, p. xxx).

thought of the Lean transformation and their own part in it. The managers' public expression of doubt and confusion surprised me. Erica represented a double surprise for us, as she had expressed intentions to swap an employee because of the workshop, a leadership action that would go directly against the learning objectives of the game. I decided to remain sensitive to our initial sense of surprise (Mol 2010) and center the analysis on these two managers. I decided to treat the manager's articulations as the effects of a network of events and attempt to understand what enabled this specific enactment of change management. Thus, I decided to embody the research persona of *the Detective* in an attempt to answer the question 'What done it?' an analogue to 'Who done it?.'- movies. In short, the practical mystery I was trying to solve was: What made them articulate the changes they did?

To operationalize this methodological intention, I found inspiration in Justesen (2020) and produced a timeline of the managers' trajectories through the workshops (see Figure 7). I noted the elements that the managers highlighted as significant in the interviews and workshop discussions related to the change. The timeline provided an overview of how active agents and notable events were tied together over the duration of the workshop intervention. This helped to visualize the relations between significant events that had occurred throughout the workshops and the reflective associations the managers made with their work and their perception of themselves.

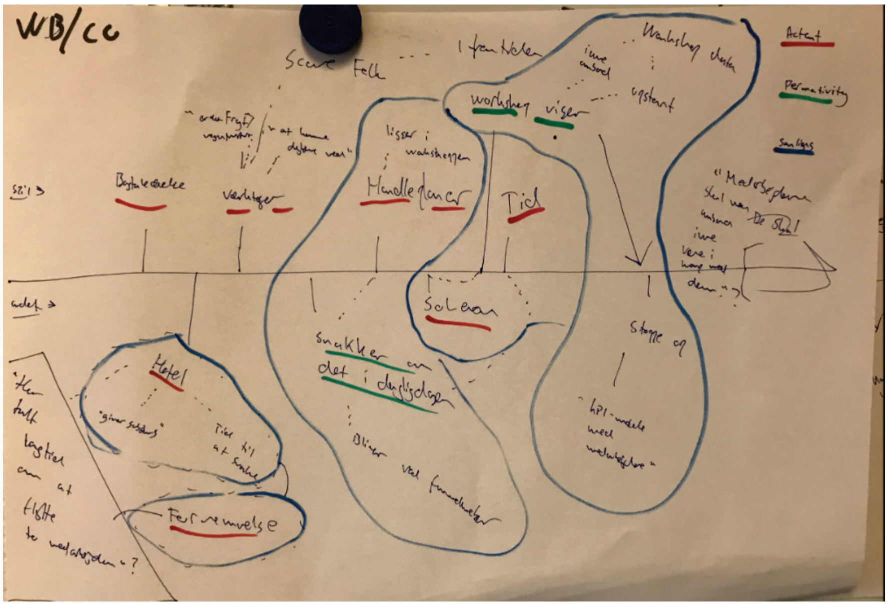


Figure 7 Image of timeline that shows manager's trajectory through workshops

I started by reading field notes from the workshops in which the managers had participated. This led me to identify a set of events that seemed to be associated with the eventual articulation of change. I revisited these events by watching and transcribing the video clips. I then coded the material for significant pieces of dialogue that seemed to be related to the change. Further, I coded the elements in which the game elements played an active part in these conversations. I then listened to all the interviews with the two managers. I was particularly sensitive to utterances that resonated with the eventual change. I coded utterances related directly to the change event. I also coded parts that indicated the managers' attitudes toward the game and their thoughts on the game elements. Two research assistants at NRCWE coded all interviews, for example, of self-proclaimed learning and a direct appraisal of the different game elements. I used this to compare Erica's and Bruce's cases with other managers' accounts of learning and their attitudes toward the game. I noticed a great deal of similarity between the case of Eric and Bruce and the other managers with regard to their attitudes toward the game elements and how they thought they would or would not be able to use them. I noticed that accounts of self-proclaimed learning revolved around either some particular aspect of the game that struck a chord or some tangential self-insight relating to how they comported themselves as managers in relation to the task of change management. This led me to conclude that there was a more general theme relating to the obtainment of personal insights, which inspired further examination.

I then began describing the workshop events I had highlighted, integrating quotes from the workshop and interviews with our own descriptions, and relating workshop events with remarks and perspectives from the interviews. I noticed that the workshop I focused on was not easily explained by conventional learning frameworks, such as Kirkpatrick and Kirkpatrick's (2006) four-step model, which had been used as a reference model in the CCI and builds upon the idea of enabling subjects to repeat learning content. Moreover, I did not find satisfactory explanations in the literature on game-based learning, which tends to highlight scenario training, conceptual understanding, and embodied experiences as the mechanisms of learning (Blumberg *et al.* 2013).

Through a recommendation to consider my data a case of a form of spiritual exercise (Hadot 1995) and engaging in additional readings related to this (Halsall and Brown 2013) I noted that Sloterdijk's (2009-2013) study of anthropotechniques resonated with my impression of my case while offering conceptual perspectives to help me operationalize my analysis. I highlighted Sloterdijk's notion of elevation as particularly relevant for discussing the mechanisms of change in Wallbreakers. I decided on doing a sort of conceptual experiment to see what the concept of elevation could help bring about in an analysis. Thus, the final step of the analysis revolved around revisiting descriptions and analyses of the game and the learning trajectory while being sensitive to the notion of elevation. This step led me to draw together new associations related to the developments in the workshop and inspired how I thought about the change mechanisms in self-techniques and the arrangement of simulations, which had not appeared in the reviewed literature.

3.8.3 The practice consultant

The final research persona I performed was the practice consultant for answering the sub-question concerning what change managers do to overcome resistance to the Lean tools. I was already involved in RIEs, as I was supposed to consider ideas for furthering the company's ability to realize the RIE's value potentials. My research interests and practical obligations therefore overlapped considerably in this case. Choosing the name, the practice consultant, underscores how my research interest was guided by a practical concern on which I was mandated to advise.

I found inspiration in the part of actor-network theory inspired by ethnomethodology, a poststructuralist branch of the social sciences that is particularly interested in the production of social order through social interaction (Garfinkel 1967). Ethnomethodology is associated with conversational analysis, a social scientific method that makes human-to-human conversation the unit of analysis for studying social order (Sacks 1992). Latour once stated that the very project of actor-network theory 'was simply another way of being faithful to the insights of ethnomethodology: actors know what they do, and we have to learn from them not only what they do, but how and why they do it.' (Latour 1999b, p. 19). This was a comforting starting point for me as a researcher who was mandated to give advice on overcoming resistance to a group of people who I considered experts on the question in the specific context I was studying. A way of providing the answer could simply be to learn from the consultants and describe what I saw. As I was fortunate to have good data, I decided to make the conversational interaction my main unit of analysis, although I remained attentive to the broader network of effects. My only problem was that I was unsure of how to do this.

Originally, actor-network theory was not geared to studying spoken interaction, nor did it seem to care much about it. Latour and Woolgar's (1979) study of the construction of scientific facts in a laboratory presents many actors, both human and non-human, who do a lot. However, this study never gives an account of verbal interaction. Instead, the authors go to great lengths to present the materiality of the interaction. Relatedly, Callon's (1981) investigation of problematization struggles relating to fuel cell research hints at confounding elements of human intricacy. Yet, no actual dialog appears.

Later, however, methods of ethnomethodology were coupled with ideas and concepts from actor-network theory, yielding important crossover texts like Suchman's investigation of communicative problems between people and photocopiers (Suchman 1987–2007) showing the potentials of coupling conversational analysis (Sacks 1992) with a notion of non-human agency. Later developments have taken such approaches even further, and provide compelling arguments for how attention to dialog can in fact yield new insights into non-human agency (Cooren 2004) and why it matters in contexts such as tool-facilitated workshops (Cooren *et al.* 2006). This specific development within actor-network theory has inspired my approach to my data. However, I must underscore that it has been a source of inspiration, which never developed into an attempt to master the methodological approach exemplified in the studies, which involves certain standards for transcribing dialogue (Jefferson 2004) and engaging in a range of analytical concepts (Sacks 1992). From the inspiration, I gathered a sense that there were insights to be had if I stayed sensitive to the dynamics of the conversations of the RIE. Further, I found comfort in seeing others who had followed the same approach of adopting a light inspiration from ethnomethodology in their analyses in related studies (Hauge 2016, 2018). Again, as a way of describing my analytical process, I present three stages across which the method spread.

Stage 1

To analyze how facilitators overcame resistance to tools, I wanted to find a set of episodes exemplifying resistance, which I could analyze. I had concluded that I would keep my focus on the first day of the workshop, as this was where resistance to tools tended to occur. I had a sense of some of the episodes I wanted to look into, from my memory of the RIE's. However, in order to see if other episodes should be hidden in the data somewhere, I read the relevant field notes to see if more episodes were there. I defined an episode as a strip of time, which included an observable point of resistance that obstructed the workshop process. The episode also had to have a point of relief, in which the resistance faded, allowing the workshop to proceed. With this definition in mind, I read my field notes and found five episodes. Three of the episodes appeared in the workshop from which I had audio recordings. I then listened to the audio recorded episodes again, and decided to remove one episode, as it struck me as too long and complicated for me to be able to cover within the limits of a journal article. I then transcribed the dialogue for the remaining two episodes (see Figure 8).

[redacted]: Vi ved jo godt hvad problemerne er I har jo lige stået og listet dem op her i formiddag I ved godt hvad problemerne er, I kan se I kan se der er problem med det og det og det og I ved ikke hvad årsagen er

[redacted]: Men jeg ved ikk om

[redacted] Jo I ved også hvad årsagen I ved bare ikke hvordan I skal løse det. Det er det vi skal kigge på her. Men men alt det der data som du skal underbygge med som du skal ende med at sætte nogle mål og så lave nogen bennefits sidst på ugen. Det gør man jo for hver eneste ting man arbejder med

[redacted]: Okay

[redacted] og så lægger vi sammen til sidst og ser hvad giver det her sammen og kan vi lave. Og Kan vi lægge det sammen

[redacted]: Okay

[redacted] Det er jo heller ikke sikkert at man kan det

[redacted]: Its a bit of a brainstormer

[redacted]: Ja, det er ikke, det er ren brainstorming

[redacted]Ja okay. Then I am more relaxed

[redacted]: Ja. Det bliver meget mere specifikt senere. Så hvis vi prøver at starte op og siger, hvad er bare en enkelt årsag til at vi ikke kan det her. Bare et eksempel

[redacted] ???. Det som [redacted] han lavede, det var årsagerne til noget[redacted] lignende der var nogle årsager til hvorfor vi ikke kom i mål

Figure 8 Transcript of part of the episode appearing in field notes above

Stage 2

I quickly realized that analyzing the episodes posed a bit of a challenge to me. Some of the episodes were quite messy in the sense that it was difficult to keep track of what was going on. Often, many people were speaking at once, and it was difficult to follow the flow of the conversation and the implications of the different actors' utterances. Much of what was said regarded production-specific elements, and the participants often used acronyms and native codes for people and things, which made it even more difficult for me to follow. I simply was not able to provide a straight answer to what happened in these more complicated episodes. I realized I needed a way of structuring the conversation differently than linear conversation, preferably as a table that would allow overview and comparison (see Figure 9). To provide content for such a table, I performed thematic coding (Boyatzis 1998). The codes were 'problems', defined as an actor's utterance of there being a problem in relation to the workshop, which makes them resist progression. 'Solutions' defined as an actor's suggestion on how to resolve the problem being discussed. 'Reason' (argument) is defined as the reasoning to which the actor ascribes a problem.. Lastly, I coded for mediation, understood as occasions in which someone intervenes in another's problematization. I coded each episode following this formula, and afterwards I imported the findings to a simple table. I added two additional rows to the table under marked as reflection, which I used to write my personal analytical reflections. The table provided me with a visual aid for seeing core tensions in the group, which helped me in the subsequent stage of writing up the analysis.

ISKE BEN

Protagonist	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Problem	What is the problem?	[redacted]	[redacted]	Root cause	Kvantitet af bacthces	Containment vs countermeasure	Difficult to make a theory right now
Løsning		Gå i gang med fiskebens- øvelse (lavt hængende frugter) I kender allerede problemet	Vi skal kvantificere vores løsninger		– hvor mange batches løser en given action?	find out what's the underlYING problem	
Argument						System error	Not enough data points
Mediator		[redacted] [resistant] – problemet er stadig ikke kendt				[redacted] [ally]: "Exatcly"	
Refleksion	En realistisk forståelse	Modstand og forandringsledelse	Ikke et svar på hvad problemet er				

Figure 9 Screen dump of table containing code extracts.

Stage 3

I began describing the episodes and realized that I gained from thinking of each episode as a narrative (Czarniawska 1997) structured through an introduction to participating actors and props, playing out as a story plays in a novel. I used the table as coordinates for structuring the episodes dramaturgically so that the reader could have a sense of a beginning (problem), middle (argumentation and mediation), and end (solution or at least workshop progression). Reading my descriptions, I noticed that Goffman's (1974) frame analysis resonated with the material, especially the notion of keying. I had read his book 'Frame analysis' having it recommended during the first year of the study. I initially abandoned it though, as I could not find the use for it. Yet, as I began working with my data Goffman's work began appearing relevant for me.

I listened to the audio recordings and read the field notes again, making codes where I saw upkeying and downkeying gestures. I compared these new codes with the descriptions I had made and adjusted the descriptions, highlighting how the identified gestures affected the turn of events. I then reread the descriptions, adding analytical and theoretical comments where relevant.

3.9 Concluding remarks on the dissertation's methodology

Throughout the analytical process of this dissertation, I have been sensitive to surprise and have allowed myself to focus on aspects that initially made me stop and wonder. With regard to Article 1, I was initially surprised to see how easily the managers bought into the universe of Wallbreakers and how the simulacrum had been assembled. In Article 2, I was initially surprised by the managers' developmental process, which I found difficult to explain through conventional learning theory. In Article 3, being obliged to direct my perspective to frictions in the workshop space led me to enact the research personae, and my surprising realization of the practical pragmatism that was necessary to keep the tools functional. Despite performing three different methodological personae, the three articles drew on a common foundational concepts of actor-network theory. Further, the three articles approach their empirics with distinct theoretical concepts that help guide the analyses.

In what follows, I present the three articles in the dissertation.

4 Articles

Article 1

ALICE

That's a funny game, Uncle. What did you do then?

CARROLL

A red pawn took a white pawn; this way. You see, Alice, the chessboard is divided into sixty-four squares, red and white, and the white army tries to win and the red army tries to win. It's like a battle!

ALICE

With soldiers?

CARROLL

Yes, here are the Kings and Queens they are fighting for. That's the Red Queen and here's the White Queen.

ALICE

How funny they look!

CARROLL

See the crowns on their heads, and look at their big feet.

ALICE

It's a foot apiece, that's what it is! Do they hump along like this?

CARROLL

Here! You're spoiling the game. I must keep them all in their right squares.

ALICE

I want to be a queen!

CARROLL

Here you are [he points to a small white pawn] here you are in your little stiff skirt!

ALICE

How do you do, Alice!

CARROLL

And now you are going to move here.

ALICE

Let me move myself.

CARROLL

When you have traveled all along the board this way and haven't been taken by the enemy, you may be a queen.

(Gerstenberg 1915, p. 1)

JOURNAL OF CULTURAL ECONOMY
https://doi.org/10.1080/17530350.2022.2085141

The figural space of the business simulacrum: examining an educative change management simulation

[a]Esben Langager Olsen, and [b]Johan Simonsen Abildgaard

Department of Organization, Copenhagen Business School, Copenhagen, Denmark; The National Research Centre for The Working Environment, Copenhagen, Denmark

ABSTRACT

In this paper, we present an examination of a game-based business simulation. We approach the simulation as a provocative technique and analyse it as a business simulacrum. Business simulacra are referential artifacts that partake in the coordination of business and economy. In the study, we shed light on how business simulacra affect actors' subjectivity. We suggest that Lyotard's writing provides hitherto underappreciated inspiration for addressing this issue. Lyotard offers a theorization and a vocabulary which centers the simulacrum's performativity in the space between the perceived and the perceiver. The analysis shows how the simulation designers have assembled the game by sourcing established business simulacra and translating them into easy-to-discern figures of business reality. The designers couple this translated business simulacrum with ludic elements and reflexivity techniques, aimed at making the learning subjects realize and articulate change management problems. With the sensitives provided by Lyotard, the paper discusses simulacra's potentials to provoke business reality in events that entangle business subjects' subconscious with figures of business reality sourced from popular business discourse. The paper concludes by discussing the implications of the analysis for current debates on artificiality in business education, and business simulacra's performativity more generally.

ARTICLE HISTORY

Received 29 September 2020 Accepted 26 May 2022

KEYWORDS

Simulacrum; performativity; figure; business simulation; leadership development

Introduction

In popular parlance, a simulacrum is a copy without an original. Baudrillard's (1981/1994) popularization of the concept has emphasized how pervasive simulacra are in modern society, and gazing across organizations, it is striking to note the abundance of simulacra used to orchestrate business; performance indicators, person-type indicators, strategic roadmaps, etc. It appears they have become part of the core of modern organizations. Simulacra provide coordinates for business actors to orient by and determine what is essential, or real even, and what is not. Pondering on this Muniesa (2014) argues that a function of a business simulacrum is to provoke business reality, revealing economic reality by explicating it and by providing means for its articulation. A performance measurement, for instance, both indicates an employe's performance based on prefigured criteria, and animates the employe to perform in ways that are aligned with the assessment criteria. Thus, the simulacrum has become a vehicle for provoking the performance it was designed to rep- resent. A function of the simulacrum is to effectuate reality.
In this paper, we aim to contribute to the theorization of how business simulacra provoke human subjects to articulate business reality. We argue that a vocabulary for business simulacra's provocative aspects is in need of development. The paper suggests that Lyotard's (1971/2011) concept of *the figure* and the associated notion of *figural space* are relevant here. In this paper, we apply Lyotard's concepts to a particular business simulation, Wallbreakers, and examine their implications. Looking into how the designers have assembled Wallbreakers, we consider the simulation's techniques for activating business subjects' potential for articulating their personal change management reality. Simulation-based management education is a particularly interesting subject matter for the current inquiry. Muniesa's investigations of the Harvard Case Method highlight tensions relating to the dramatization of business reality. He argues that business simulations produce a parallel and exaggerated version of reality. The Harvard Case Method can be seen as a tool to challenge business subjects to articulate behavior congruent to this artificial reality, that is, demonstrating decisiveness and courage in the simulated act (Lezaun and Muniesa 2017, Muniesa 2014, pp. 96–103). Simulations in education face us with a key tension relating to the problem of the simulacrum. How can we teach business reality by making use of a simulacrum? Critiques have already been articulated regarding artificial reality in education (Linderoth 2012, Pias 2017, p. 213, Suchman 2016), somewhat echoing the platonic critique of faux representations (i.e. simulacra)(Deleuze 1969/1990). In this paper, we follow Muniesa's (2014) proposal, to sidestep the platonic critique by taking a pragmatic stance in order to reconsider simulacra's means of effectuation. We propose that Lyotard's triadic model of figures can help us gain a more nuanced under- standing of the performativity of business games and business simulacra in general.

Wallbreakers is designed by the Danish change agency Workz, an offspring of a film production company. Over the years, Wallbreakers has attracted a global audience of customers from various industries and academic business institutions. As such, Wallbreakers has become a significant actor in the world of management education and game-based learning. We analyze the game's design and trace the source material and the points of translation. This reveals a design process of mixing management literature, psychotherapeutic techniques, principles of board game design, and creative twists with inspiration from the film industry. We highlight how the simulation's figurines play a threefold role. Firstly, they enable interaction with the game. Secondly, they explicate the simulation's rendering of business reality. Thirdly, they serve as vehicles for the learning subjects to articulate their own experience of their organization's change management reality. Wallbreakers deploys a combination of open- ended dialogue exercises and binary castigation- and gratification reactions. This mixture aims at both channeling and liberating the training subjects' thinking, in a contained workshop space. By drawing on Lyotard's theorization on figures and figurality, we highlight how the assemblage of simulations can be seen as a figuration process that entails folding discourse into figures to alter the discourse's ability to affect learning subjects. Lyotard's theorization helps us see how the simulation's figures can facilitate learning subjects' articulation of both conscious ideas of what is going on their organization, and sub- conscious contents associated with their anxieties and desires. Thus, the simulation does not only rep- resent a generic version of business reality, it provokes the learning subjects to articulate it.

The paper has four sections. The first introduces the phenomenon of games and simulations for education. The second section clarifies how Lyotard's concept of the figure has relevance for the study of business simulacra, and the third presents the analysis of Wallbreakers. In the final section we critically discuss how the concept of the simulacrum and Lyotard's three types of figures aid our examination and reflect on what Lyotardian thinking adds to the theorization on the performativity of business simulacra more broadly.

Functions of the artificial in management education

Shifting consultancy fads and academic interests shape the ideals of the management discipline (Rost 1991). Management education fosters fantasies which managers' can come to incorporate when narrating their business selves (Sveningsson and Larsson 2006). Simulation- and game-based approaches (Abt 1987) are one type of technique used for representing management ideals and shaping managers. By simulating essential aspects of business reality, the goal of these techniques is to facilitate experience-based learning in a safe environment. In this, designers aim at facilitating learning by simulating real world tasks. These games can take various shapes, for instance, role- play, simple task simulation, or case based dramatized decision-making (Blumberg *et al.* 2013). Hence, business games orchestrate a sort of learning-oriented pretend play. The idea of gamifying literally everything has come under much hype as of late implying, for instance, the idea that 'active' participatory learning trumps conventional 'passive' consumption (Agger 2016). We have entered a 'ludic century' Zimmerman (2015, p. 21) claims, and it is time for all to appreciate this fact and unleash this 'engine of innovation and creativity.' Rightfully so, ludic elements have come to pervade the economies and by now seem inescapable (Giddings, Seth, Alison & Harvey, 2018).

However, some argue against the idea that people learn from playing games, noting that the simplicity of game worlds cannot compare with real world complexity. This entails that the learning that occurs from playing a game will not be applicable to real world problems (Linderoth 2012). Some even warn that simulation-based learning can be dangerous, for instance, if learning subjects base future decisions on experiences obtained under artificial conditions (Suchman 2016). A less pessimistic stance on the function of artificiality in education is found in Sloterdijk's examination of 'anthropotechniques;' tools and techniques for improving the self. Sloterdijk observes how it often is the case that educational techniques exploit the artificial and use it to enable learning subjects to leave normality, step out of 'the river of habits' (Sloterdijk 2013, p. 222). Simulations may provide a space in which learning subjects can rise above their normal perception of reality and perform exercises with the intention of breaking their ties to current habits, thereby allowing them to reach for higher plateaus of competence and contemplation (Sloterdijk 2013, pp. 156–167). In perspective offered by Sloterdijk, the arrangement of artificial reality is a premise for self-development, not an inherent problem. Investigating the functions of the staging of artificial reality, Muniesa (2014) highlights that the Harvard Business School case method goes further than merely mimicking business practices. Rather, the purpose appears to be to exaggerate what the educator perceives to be relevant business problems and expose the learning subjects to them in a contained environment. A function of dramatization is that it serves to challenge learning subjects to make decisions beyond what they are comfortable with (Lezaun and Muniesa 2017): an infantilized substitute of the horrors of business reality they supposedly will meet.

Observing simulation-based management education, Muniesa (2014) mobilizes the concept of simulacrum. Muniesa informs his conceptualization of the simulacrum by drawing on Deleuze (1969/1990). A Deleuzian position on the simulacrum is agnostic or even positive. This is in contrast to a pessimistic reading of simulacra, as a deceiving fake reality, as proposed by Baudrillard (1981/1994). Deleuze encourages us to shift focus from the obsession with distinguishing between true representations (the eikone), and faux representations, (simulacra), and instead consider all simulacra as effects with equal relevance for the emergence of sense. Muniesa demonstrates that examination of simulacra can be a relevant approach for inquiring into the performativity of cultural economy (Muniesa *et al.* 2011, 2014, 2010). Of particular relevance for this paper, Munisea observes the role of simulacral management education and the attempts made of realizing the idealized business self (Lezaun and Muniesa 2017, Muniesa 2017). He suggests we think of simulacra as provocations of reality, vehicles that eventually contribute to the effectuation of business performance. Therefore, he argues, we should study business simulacra as a subject matter in their own right (Muniesa 2014). This paper follows Muniesa's call for more in-depth studies into the performativity of business simulacra, by examining how a popular example of these has been assembled.

Simulation-based education

With the claim of facilitating 'experiential learning' (Wolfe 1993), simulation-based learning answers a call in leadership development literature to bridge theory and practice (DeRue and Myers 2013). The literature usually traces the history of game- and simulation-based learning back to eighteenth century Prussian military. The war-game *Das taktische Kriegsspiel* created by George von Reisswitz, was a physical, table-sized war game built around a set of materialized figurines representing contemporary military elements, such as cannons and cavalry. Reisswitz referred to the game as a 'mechanical device to represent tactical manoeuvres to the senses' (Hilgers 2012, p. 38). As the military industry continued to develop game-based training technologies over time, and the business world began employing its own versions of serious games and business simulations in the 1950s (Pias 2017).

The literature on game-based learning often highlights the idea of the 'magic circle' (Salen *et al.* 2004) when conceptualizing the event of game-immersion, in which subjects have interaction beyond the normal, governed by implicitly or explicitly defined rules of play. Huizinga, who originally coined the term, referred to the 'magic circle' as the emergence of 'temporary worlds within the ordinary world, dedicated to the performance of an act apart' (Huizinga 1949, p. 10). Serious games are said to have the ability to 'transport' (Blumberg *et al.* 2013) players to other realities, from where they are able to yield 'cognitive, emotional and imagery involvement' (Green *et al.* 2004, p. 311) in the simulated tasks. Michael and Chen (2005, p. 51) argue that game designers think in two modes when designing immersive realities; they seek either to copy the world as it is or to construct an abstract condensation of it. The argument seems to be that the complexity of the mundane obfuscates the essence of reality, implying that exposure to virtual 'dramatic representations of the real problem' (Abt 1987, p. 1) is an approach to circumvent this. Promoters of simulation-based education thereby claim to offer a technique that brings learning subjects closer to a more real version of the problems they will face in reality. We can think of a simulation as a 'miniature' that seeks to realize its theme in an ideal state by constructing a controlled 'island,' separate from the disturbing influences of reality (Lezaun 2011). Business simulacra, when used in serious games, are techniques that allow for both provoking reality and containing its articulation (Lezaun *et al.* 2013).

Theorizing the performativity of simulacra, reintroducing the concept of figure

In theorizing the interaction between the business subject, the simulacrum and the context of ideas, we suggest that the early work of Lyotard (1971/2011) provides an overlooked resource in the performativity literature. Lyotard (1984) is commonly recognized in performativity studies for introducing the notion of performativity, and coupling it with knowledge production and production efficiency (Gond 2006). Lyotard is recognized for coining and describing the postmodern condition, and the 'materialization of knowledge' which is a key notion when considering the performativity of business simulacra, and their ability to do things despite relying on unsettled reality definitions (Muniesa 2014, p. 8). Under the postmodern condition, subjects perform knowledge, and knowledge represents objects as pragmatic means of utility, rather than representations of final truths. The use of financial objects is an example of this, and shows how one object can come to both express reality and realize it as effect (Muniesa *et al.* 2011). Muniesa (2014, p. 8) highlights Lyotard as a significant driver in the 'performative turn,' the empirical and philosophical interest in reality as constituted in performativity. The current paper follows the trace of Lyotard (1971/2011) and high- lights a piece of his work developed before his engagement with concepts of performativity and postmodernity, namely his doctoral thesis 'Figure, Discourse.' In our view, this part of Lyotard's work that has yet to receive the attention it deserves in regards to the examination of business simulacra's performativity.

In 'Figure, Discourse' Lyotard (1971/2011) challenges, and aims to bridge, the theoretical divide between phenomenology, linguistic structuralism, and psychoanalysis. In part, the thesis was an attack on structuralism's attempt at occupying the research on experience and perception. Lyotard dedicated his examination to 'sight' underscoring a sympathy for phenomenology. His goal was not to expel the significance of language though, or rendering it inferior to preverbal perception. Instead, he wanted to make the case that the three elements, perception, language, and the subconscious were all active elements in perception. Collectively they contributed to the emergence of a *figural space,* the event of perception. In clarifying his view, Lyotard developed a conceptualization of three types of figures.

- Figure–image: Referring to the outline of a figure, for example, the drawing of a tree.
- Figure-form: The perceiver's gestalt of the figure, which is somewhat plastic and fluctuating.
- The figure–matrix: Human sub-consciousness, a deep configuration, which requires reflexive analysis to approximate, 'but that can never become object either of vision or signification' (Lyotard 1971/2011, p. 279).

With this triadic relationship, Lyotard examined how expressionist art could function as a medium for the articulation of the subconscious. The subconscious, Lyotard argues, can be inspired by, projected into, and contained in the figure–image. The subconscious interacts with the figure– image, in a way that both summons it, and at the same time, shapes it. In this process, the subject simultaneously grants significance, figure-form, to the figure–image. The indicative potentials of figure–images make them able to both contain the figure–matrix, as it provides the figure–matrix a mode of expression. However, this operation also renders the figure–matrix absent, as the projecting subject will lose sight of the origin of the tension, as soon as it has lent itself to the figure–image (Lyotard 1971/2011, pp. 281–282). Figures–images simultaneously produce presence *and* absence of the represented.

Discourse has the same potential of articulating the subconscious, Lyotard agrees with his linguistic counterparts on this. Language is always active during perception. Lyotard states; 'Only from within language can one get to and enter the figure' (1971/2011, p. 7). Its presence has the potential of devouring the significance of the figure–image, altering its form. Yet, he also stresses, that language does not pre-figure the figure-form. On the contrary, figures can also devour dis- course, for instance, when a figure gives a metaphor physical shape on the canvas. A figure– image can both facilitate the travel of discourse, but it will do so in ways that also reduces its nuances (Lyotard 1971/2011, p. 50). Hence, figure and discourse take turn in occupying each other, both obstructing and aiding one another's claim on rendering reality.

Lyotard's theorization on figure and discourse offers concepts that increase our sensitivity towards the nuances of performativity of simulacra, and their operations in the space between the human subject, the material matter, and the network of language. The conceptual apparatus of the figure offers a theoretical vantage point for examining the relations between simulacra and subjectivity. The theorization is relevant for us because it plunges us into the question of entanglement of material, perception, and language. Necessary considerations when examining performativity of business simulacra. The theorization helps articulate how business simulacra operate, especially in arrangements that aim at provoking business subjects to make reality articulations. In the present paper, we find inspiration from Lyotard's theorizations of ‘Figure, Discourse’ when analysing the design of the change-management simulation, Wallbreakers. We seek to understand how the designers think of their tool and how they intend for it to influence business subjects.

Method and analytical approach

To attain a rich understanding of Wallbreakers, we started by reading the game materials, examining the game elements, and observing it in operation. We conducted interviews with the game designer and two consultants from the consultancy. We conducted participant observation of the consultancy’s facilitator training. Additionally, we attended promotional events to gain insight on how the consultancy presented their games to customers.[1] Access to the consultancy came through our involvement in a larger research project, which aimed at evaluating a game-based approach to organizational interventions. We conducted our analysis with inspiration from the methodological approach of tracing the translations involved in network stabilization (Justesen 2020). Subsequently, we found inspiration in the notion of figuration; analytical unfolding of figures folded in performance, material, and semiotic (Suchman 2012). Mainly though, Lyotard’s three types of figures have led the sensitivity of the analysis. We have been particularly attentive to the image–figures provided in the simulation as well as the discourses that attach to them. Lastly, we have been critically reflexive in relation to the question of how the game’s techniques can come to influence the coupling between image–figure, figure-form, and figure–matrix.

For the analytic purposes of this paper, we conducted three stages of analysis and coding. The initial stage started during data collection while observing the Wallbreakers workshops. During these observations, we made field notes on the objective occurrences and preliminary thoughts on the less obvious mechanisms. We used our notes to inform the interview with the consultancy. In the second stage of analysis, we used NVivo 12 (QSR 2015) to transcribe the audiotaped inter- views, and code them thematically, to gain an impression of the content. In the second stage, we identified figures to focus on in the analysis. In the third stage, we coupled the themes from the interviews with the supplementary notes we had gathered, revisiting and re-reading the original interviews in a closer analysis. This led to the four themes presented in the analysis.

We have structured the analysis as follows. First, we introduce the simulation and the consultancy that made it. Then we identify the performative figures in the simulation. Next, we examine the figuration process that led to the figures. Finally, we examine the simulation’s mechanisms and techniques for affecting the learning subjects.

Analysis

Wallbreakers is a physical board game designed to simulate an organizational change process. It is a generic tool sold to companies as change management education. The game offers consultants a self-contained standardized package of a plug-and-play learning experience. Workz, a Danish- based change management consultancy, designed Wallbreakers in 2005 under a different company name and has refined it over the following years. Workz is an offshoot of the experimental Danish film production company Zentropa. Workz designed Wallbreakers as their first commercial success, and they largely owe their success to the achievements of the game. Zentropa is known for its radical approach to management, with a CEO who deliberately uses norm-violating acts to create unease by crossing the personal boundaries of the employes (Sørensen and Villadsen 2017). The CEO intends the management style to create an atmosphere that provokes progressive ideas by liberating the artists from their ideational constraints. While Workz was still part of Zentropa, it took part in orchestrating workshops and events to boost employes’ creativity. This was done by giving difficult tasks to personnel under dramatized and extreme conditions, somewhat resembling the approach of the Harvard Case Method (Lange 2012, Lezaun and Muniesa 2017). A significant success for

Zentropa were the Dogma films of 1995, which became critically acclaimed and internationally recognized. The films followed the Dogma manifesto, which consists of 10 commandments, or obstacles, which come to limit the director's freedom. For instance, the director had to shoot the film with a handheld camera, could not add sound effects in post edit and was not allowed to use superficial violence (Schepelern 2005). The idea was to enable cheap film production and force new ways of cinema to emerge. It was a playful form of masochistic pursuit of creativity, which one of the Dogma originators, Lar von Trier, would come to explore and enact more fully in his experimental arts documentary '*The Five Obstructions (De fem benspænd)*.' Workz carries with it a heritage from Zentropa, and credit the film production company for having inspired their way of working. Besides the influence from Zentropa, the core partners of Workz share a back- ground in the Danish board- and roleplaying-game community. Workz' familiarity with the conventions and developments in game design is mainly attributed to this latter part.

Identifying the figures of Wallbreakers

The material package of Wallbreakers mainly consists of a range of artifacts used to represent essential aspects of the simulation and maneuvre the simulation. The package also contains a detailed facilitator guide, with standardized timetables, models, and prescriptions for good facilitation.

The object of the game is to move a department with ten employees through an organizational change process as quickly as possible, with as many employes aboard the change as possible. The learning subjects cooperate in groups, making decisions about how to manage the change process in a way that both ensures its success and reduces the number of employees that move to resistance. The simulation revolves around a narrative of a company merger. The designers wrote the narrative with inspiration from a real-world case, a merger between two IT companies. The designers originally built Wallbreakers to help managers at the time facilitate the merger.

The designers have figured essential aspects of the simulation with the use of tangible figurines, game boards, and playing cards. The department is figured as a plastic bus. The change is figured on the game board – as a road divided into three phases: startup, implementation, and anchoring. A pavement running around the road functions as the figure of resistance. It is divided into three levels: (1) 'I don't understand it,' (2) 'I don't like it' and (3) 'I don't trust you.' The consultants place the bus on the road in the startup phase, and over the course of the game, the bus moves through the three phases of change. When employes begin resisting the change, the consultants or the learning subjects move the figurines from the bus onto the pavement. Conversely, when employees become more positive towards the change, they are moved towards, and eventually, back on the bus.

The first task the consultants give the learning subjects is to choose a gear, ranging from one to four, for the startup phase. The game accompanies each gear with a description of the choice's implications in the game world. The choice of a high gear implies putting more energy into implementing the change at the cost of less focus on managing the daily operations. The opposite applies for a low gear. The learning subjects choose a gear by opening one of the four flaps on the gear card, which is a cardboard handout. This act resembles that of a child opening an advent calendar. Text beneath the flap reveals the consequences of the choice in the game, primarily the speed of the bus, and which employees move into resistance. It also explains why specific employees will move to resistance.

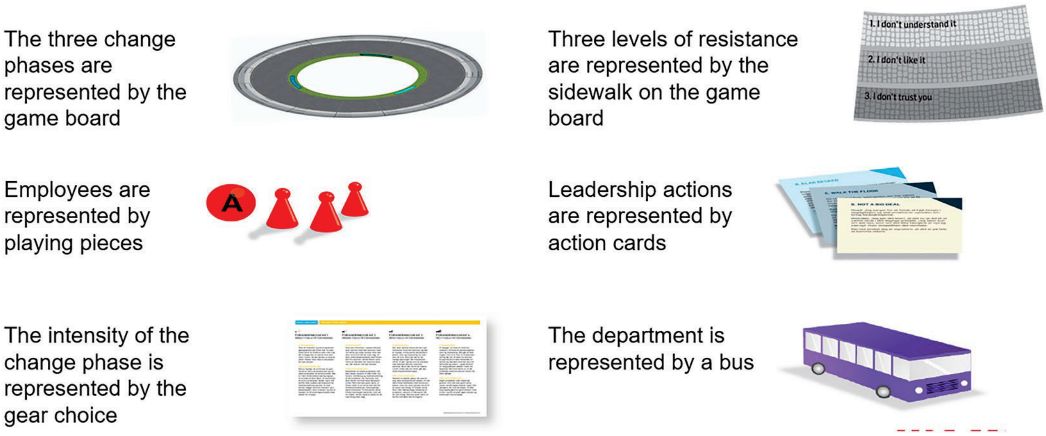


Figure 1. Content of Wallbreakers (Taken from consultancy's PowerPoint presentation).

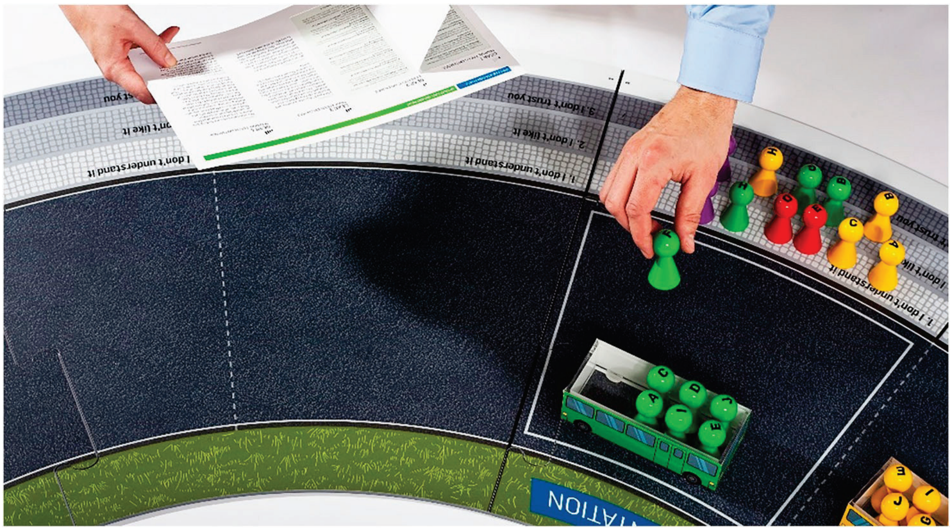


Figure 2. Stock photo of Wallbreakers showing the busses, the employes, the road, the pavement, a card, and learning subjects' hands.

Each employee has a short biography, providing both a description of the employee's role and history in the company and personality. The designers intend the employee's responses to reflect their individual personality constitutions, and the consultants will encourage the learning subjects to use these descriptions to speculate on the employee's individual reactions, before making a decision. Designing the game responses the designers drew inspiration from change management literature (Kotter 1996, Maurer 1996) and the personality type descriptions from the Myers-Briggs Type Indicator (Myers 1962). The change management literature and the personality type indicator are generally popular in business practice. This mix of inspirations provides the consultants a body of references, which they will refer to when accounting for the reasons behind the game's design and reactions (See Figure 1 and 2).

Following the choice of gear the consultants ask the learning subjects to choose four out of twelve 'leadership action cards' they think will help them get employees out of resistance and back onto the bus. These choices resonate with the prescriptions found in the change management literature. One action card suggests one-on-ones with those of the employees who appeared worried about the change, while another card proposes standardizing work processes to give the employes a clearer idea of their tasks. Again, each card results in a reaction whereby employees move in or out of resistance. The cycle of gear choice followed by leadership

actions repeats for all three of the above-mentioned phases of change. In total, the game exposes learning subjects to six turns of decision- making. Between decision-making sessions, the facilitators ask questions aimed at making them associate the occurrences in the game with their personal experiences.
The simulation provides a perspective on business reality that is eventually quite alien to the practices it represents. Though the simulation's focus is on the emotional and relational aspects of managerial practice, it represents this phenomenon only in abstraction. Rather than making change management a visceral experience, it provides an occasion for imagining change management to play out. One could also argue that the game resonates with managerial practice quite well, at least to the extent that much managerial work actually consists of making-decisions in a space mediated by abstract models, text, and data aggregates (Law 2002). To this end, Wallbreakers resonates with a practice world already mediated by simulacra and imagination.

Across the different elements of Wallbreakers, we have found a range of material figures. The figure of a three-phased change process. Figures of resistance. Figures of choice. Figures of employes. Figures of departments. Yet, it appears the game also projects a figure-form that is ephemeral rather than tangible, namely the figure-form of the change agent. A change agent is an idealized business figure, a trope widely used in the change management literature (see, for example, Kotter 1996). A change agent carries the responsibility of managing change and protects the change against the risks of failure and resistance. Wallbreakers does not figure the change agent in any tangible or visible form. Instead, the game produces an artificial reality, which challenges the business subject to perform the role of change agents themselves. To succeed in the game, learning subjects must strive to embody this figure-form. Through the game setup, learning subjects become sensitive to this figure-form, affording them to reflect on their own managerial accomplishments in relation to this. However, the ideal is virtually impossible to achieve, as a perfect score would demand either a great deal of luck or numerous systematic experimental runs through the game. This way, the game challenges learning subjects to strive towards embodying an unrealizable 'exemplary' figure-form, a common mobilizing attractor of anthropotechniques (Sloterdijk 2013, p. 23). Wallbreakers thereby presents a range of figures, which in different ways offer vehicles for provoking change management reality, both as a thing in the organization and as a managerial ideal.

Figuration – coupling figurines to discourses

In Wallbreakers, the game artifacts serve to demarcate the game world. The core artifacts are the game board, the busses, the employe figurines, the booklets, and action/gear cards. The game designer expresses that he hopes the game will leave subjects with a 'common language' for change management. When observing the game material, it becomes apparent that the figurines and artifacts act as carriers and conveyers of this 'common language.' The 'common language' consists of a set of key metaphors, including 'gear,' 'three levels of resistance' and 'three phases of change.' In constructing these metaphors, the designers sought inspiration in a set of theories and frameworks generally recognized and used in present-day organizations. For instance, they attribute the model of resistance to management consultant Maurer (1996). Maurer resides in the prescriptive literature and practitioners frequently draw on his work. The inclusion of Maurer adds a potential of resonance for those who have already familiarized themselves with the prescriptive literature.

Coupling Maurer to the game took some creative effort though. Citing Gestalt psychology as his own primary source of inspiration, Maurer (1996, p. 42) argues that the three levels of resistance are interconnected phenomena 'always in flux.' In his book, *Beyond the Wall of Resistance* he depicted the mental model as three interconnected circles (See Figure 3). However, a flux metaphor lacks clarity and makes an impractical foundation for a board game. To overcome this problem, the designers translated Maurer's figure of resistance into a figure of three clearly demarcated stacked layers depicted on the road pavement. By translating the image of resistance from one of flux into a stable object of separately demarcated hierarchical fields, the designers had opened the possibility of attributing a dimension of spatial distance to the phenomenon of resistance. In other words, a more entrenched form of resistance, like not trusting the change, lies farther from the bus than, say, simply not understanding the change. The figure pro- vides a mental image of resistance as a place people go to, but also as a cognitive and emotional state attributed to the individual's state of mind. Hence, the coupling of Maurer to the game is also a decoupling from the original text. The model now has a spatial quality and a strict internal logic. The origin of the three phases of change follows a somewhat similar path. The game was initially designed as a four-phased model following a standard from a then collaborating consultancy.

However, as Workz ran the game, they learned that four phases created a 'bad flow' and therefore decided to reduce the number of phases to three. Ironically, a three-phased change model is the industry standard for change management, so the figure has ultimately assimilated established organizational standards (Rosenbaum *et al.* 2018). The example of the three-phased figure of change demonstrates another element of business figuration. The designers carefully monitor how different iterations of the simulacrum affect social interactions. When an element fails to meet the objective of the design, the designers tweak or remove it. Thus, the designers shape the business simulacrum in accordance with established change management discourse and circulating business models, but in a way that is amenable to change and translation depending on how well it performs. A final example of the coupling of language and material is the plastic bus and the accompanying gear cards. These figures stand out from the rest, as the designers have not derived these from any authoritative source or available business discourse. The reason for their existence seems to originate from the natural requirements of building a game. Simply put, the designers needed some- thing that moved to illustrate progress in the game. With this in mind, they found the two metaphors intuitive and thus justifiable to incorporate. The designers sourced these metaphors from local dialect. In Danish, bus metaphors can connote development. A person who is 'at the front of the bus' (*fremme i bussen*) is an idiom for someone at the forefront of new development. In a Danish context, the bus metaphor tangentially connects with the theme of change management.

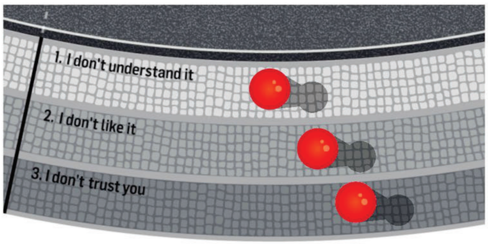
During a Wallbreakers instructor training session, we heard the consultant explain that they found the bus metaphor easy for people to understand regardless of nationality. The ease with which the metaphor functions in a Danish context obviously shifts when the technology goes abroad, where the bus metaphor becomes a novelty. However, as the figure of the bus still stands, the metaphor has proven to travel well, and therefore the designers allow its presence in the business simulacrum. In this example, we see how sourcing discourse for the purpose of figuration, may go beyond the confinements of business discourse.
The game designer noted he learned early on that businesses often use models and frameworks that are well suited for game world incorporation. Game design becomes a way of reintroducing existing business simulacra, through processes of decoupling and translation. Baudrillard's (1981/1994) notion of the hyperreal comes to mind, as we note that the design process consists constructing simulacra of simulacra. The gamified business simulacra alter and intensify the business simulacra's significance in the contained space of the educational exercise.

Three levels of resistance

(Maurer 1996, p. 42)

Cycle of Change

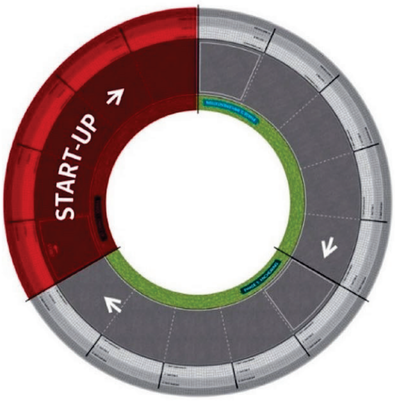
(Maurer 1996, p. 25)



Wallbreakers Game Board

Close-up of the three levels of resistance

(Workz 2017)



Wallbreakers Game Board

Three phases of change

(Workz 2017)

Figure 3. Juxtaposed figures of resistance and change from Wallbreakers and Maurer.

Figuration by indication and neglect

The figures materialize the learning content, rendering an augmented business reality, in an inherently specific and consistent way. As the figures mainly are translations of popular models and tropes circulating in the consultancy industry, the simulation reflects a business reality rendering, already available in popular business discourse. Though the simulation has taken a form which learning subjects tend to accept as intuitive and accessible depictions of change management, one could also note that the designers could have figured change management differently. Designing a consistent simulacrum appears to be in favor of the neglect of alternatives. We will explore this observation in the paragraphs below.

Surveying the peer-reviewed academic literature on resistance to change, one notices that the concept has taken many shapes. Resistance could have been figured as tensions between differing 'force- fields' or collisions between 'life-spaces' (Lewin 1945), as mobilization with both destructive and productive potentials (Zoller and Fairhurst 2007) or a potential that resides not only in change recipients, but also in change promoters (Randall and Procter 2008). A similar point can be made about the three-phased change, which has been keenly challenged in the organizational literature (Chia 1999). Through its design, the simulation allows a select few change management perspectives to take effect. In doing so, the simulation neglects the existence of a complex of alternative perspectives. This could be regarded as a lack of sophistication on the part of the consultancy, yet it does not seem to recognize this as a relevant problem. At a product demonstration, we heard the consultancy's CEO tell clients that he was well aware of the disputes regarding personality assessment technologies, and that MBTI might not be the most scientifically valid personality assessment instrument available. However, he found it to be more important that clients recognize the game's content than for the game to remain true to some authoritative scientific paradigm. The consultancy use MBTI as their framework for building game characters, because it is the technology most frequently used to classify personality types in today's businesses. In the figures' evolutionary competition for survival, their capacity to mediate conversations trumps epistemic authority. There appears to be a design principle that relates to deliberate neglect. By neglecting any perspectives on the subject matter other than the select few proven readily acceptable to clients, the game grants its users a singular perspective on business reality.

Indication, rather than detailed explication, seems to be another design principle driving the simulacrum assemblage. The CEO of Workz deploys the metaphor of the 'the eye of the dragon' when formulating how to engage people in 'co-authoring' narratives of their situations, problems, and solutions (Agger 2016). The eye of the dragon refers to a dramaturgical film effect of building suspense by merely indicating the dreaded creature rather than revealing it in full figure. Compel- ling the audience to fill in the blanks themselves, this dramaturgic technique can elicit a stronger affect than a full visual explication. Levels of resistance, busses, and phases are indicative signs, figures that communicate just enough for the learning subjects to project their own imagined reality onto them. During play, learning subjects must imagine figured employes' motivations and reactions to imagined consequences of their imagined decisions. By coupling the game's responses with the learning subjects' own experiences, the figures can catalyze discussions of, how the problematics in the game reflect the organization's current situation.

The aim of the game designer is to provide 'a learning experience,' he explains. The game must trigger personally relevant reflection and talk. Drawing on Lyotard, it is by virtue of the learning subjects' figure–matrix that the simulacrum comes to life. The game figures suggest the existence of certain managerial phenomena, and provide objects through which managers can express their doubts. Thereby, the figures help to both articulate managerial problems and contain them, for the purpose of collective inquiry. Ambiguity in the significance of the figures is not a problem. It is a mobilizing property. The figures afford the learning subjects to 'throw' their subconscious onto them (Lyotard 1971/2011, pp. 281–282). The game designer articulates this as the need to couple the discussions during the game with the learning subject's context. 'The game is just the game,' the designer explains, continuing, 'the questions [the facilitator] poses have to be relevant to the context.' It is through the association of figures and the learning subjects' experience that their learning happens, we are told. Reality is not absent during the simulation. Rather, learning subjects and consultants narrate reality into existence, and in this process augment it through its association with carefully arranged talk around suggestive game figures.

Approximation through distancing – between the infantile, the critical, and the ironic

The style of figuration in Wallbreakers connotes both a degree of irony and infantilism. Plastic busses, game board, and play pieces add ludic connotations to the educational exercise. Though the training technology has been designed to provoke articulations of managerial problems, serious matters, the exercise unfolds in a ludic atmosphere. The consultants themselves do not engage in childish acts, but perform their part as befits ordinary business. Neither do they expect the learning subjects to participate in infantile performances, as seen in other leadership development programs (Muniesa 2017). Instead, the material performs a ludic atmosphere for them, leaving space for the consultants and learning subjects to perform the arrangement in ways that imitate the regular business activity of decision-making. Likewise, the facilitators usually wear business suits when facilitating the game, which adds an element of seriousness to the atmosphere. The peculiar mix of ludic and serious frame creates an ambiguous atmosphere of an act apart from both pastime games and strict goal-oriented business. Wallbreakers blurs the boundary between the frivolous and the serious. This peculiar frame contributes to the arrangement of an act apart, 'a magic circle' (Huizinga 1949) as a means of stepping out of the 'river of habits' Sloterdijk (2013). Staging an abnormal space for contemplation allows learning subjects to relate to the normal in abnormal ways. When arranged appropriately, the act apart may even serve to catapult the learning subject them from one plateau of comprehension to the next.

Another way of distancing the learning subjects from the habitual business reality is through the ironic tone of the video clip used to start the game. In the video clip (see Figure 2), the CEO of the largest of the merging companies announces the merger to the staff. The purpose of the video is to frame and dramatize the simulation and its narrative, similar to the use of a cut scene in a video- game. The video clip has a seemingly high production value, illustrating the consultancy's roots in the film industry but also implying that, though the arrangement connotes playfulness, the designers have put in substantial resources, which indicates that learning subjects ought to take it seriously. In the video clip, the CEO has a few rhetorical hiccups, which seem deliberately designed to both amuse and spur critical dialogue. For example, we observed that the video typically elicited titters when the CEO states that the merger will cause 'a considerable overlap [of employees].' The CEO seems to figure the unscrupulous businessperson hidden behind glossy business rhetoric. The video clip resonates well with the watcher's cynicism towards the business world and its rhetoric: 'Typical management bullshit' as one manager uttered as an immediate response to the video. Yet, the dark side of the business is represented in a comedic form, leaving the figure of management somewhere between the scrupulous, the ridiculous, and the fake. The fictional CEO resembles a stereotypical businessperson, a bad boss, who can be both intimidating to those caught in his dominion, but also comes off as a fool, unable to perform his part convincingly, tingeing every act with hypocrisy.

Figure 4. Screenshot from launch video with fictional CEO.

What does this kind of figuration afford in the setting of managerial education? The purpose of the video clip is to make the simulation come alive. Its ironic twist also invites a certain way of talking about change management and the learning subjects' stake in it. The video offers the learning subjects a moment to reflect on familiar concerns in business reality, in a form that appears both realistic and absurd. The video allows participants to project their annoyance onto the fictitious CEO, thus opening for critical debate. The video functions as an invitation to approach one's personal business reality from a different perspective allowing learning subjects to recognize and articulate their problems and frustrations with the mediation of a humorous figure of management. With the video, business problems become a caricature, something to chuckle at, but presented in a game frame that simultaneously urges participants to articulate and deal with it. The video clip pro- vides a potential for a moment of catharsis,[2] a catalyst for further critical discussions on power relations, hypocrisy, and paradoxes – topics often subjected to organizational silence. Breaking with the usual rendering of reality becomes a means of approaching the painful and tabooed aspects of reality. Through its humorous, surreal, and dramatized figuration of business, the games intend to make business problematization fun (see Figure 4).

Provoking a sense of doubt

Game designers often refer to the concept of game mechanics and learning mechanics to talk about the elements in the game technology that are meant to facilitate learning (Blumberg *et al.* 2013). Learning mechanics can be instructions, such as the taxonomy and the esthetics of resistance to change in Wallbreakers. Feedback is another essential mechanism, as when a simulation intends to teach something by gratifying or castigating the learning subject in response to their in-game behavior. Lastly, designers consider facilitated reflection and discussion on the game events crucial for learning. Overall, Wallbreakers seems to follow the schematics of learning games. Yet, Wall- breakers manifests the mechanics in a specific way, following the logic of trying to provoke self- doubt.

The game rewards learning subjects when they satisfy the game's normative script. In a sense, every game response is a normative claim on a choice as good or bad, and the game ultimately punishes learning subjects who fail to satisfy the game's prescription. In the words of the game designer, 'The game kicks back.' This binary teaching method, right and wrong, echoes a learning paradigm of behaviorism. However, the goal is not just to imprint a set of right and wrongs. The designers intend the learning subjects to use the kicks they receive to start discussions about real problems. During discussions, the consultants ask for explanations for choices and give their feedback on the fallout. The facilitator asks the learning subjects to infer from the game how their choices reflect their real-world situation and habits of thinking and acting. The consultants try to get the learning subjects to explore the organizational reality through the game's figures and the game's normative claims. This way, the learning subjects' experiences become associated with the game's figures and mechanics. The kicks encourage the learning subjects to throw their personally held concerns onto the game figures, which in turn gives form to the concerns, making them appear somewhat similar heterogeneous manager–employe issues categorized as resistance, for instance. This way, the game's figures provide a shared perspective for the learning participants to discuss their issues. The game designer thinks of this design as machinery: 'The game is like an engine with which we, in a con- trolled manner and within a timeframe, can get people to talk about a specific subject.'

Lastly, the designers consider the construction of paradoxical decision-making situations particularly effective for disrupting learning subjects' narratives. One way of doing this is to ask learning subjects to solve tasks with two diametrically opposing aims. The gear card constructs a bi-directional concern, a paradox, as it epitomizes the game's challenge; implementing a change quickly while ensuring that the current level of productivity remains intact. The designers have constructed the game mechanics so that any choice results in a substantial number of employes move to a state of resistance. Whatever the subject does, it will have negative consequences. Furthermore, employes in resistance adds complication to the task, as the employes have individual needs. The game thereby exposes the subjects to problems, which have no single optimal solution. This way, the designers have refined the game mechanics with the aim of resonating with the complex and paradoxical daily struggles of real world change management. 'You are going to encounter resistance, whatever you do,' the designer explains. This is the business condition he has meant to convey. He elaborates, that an objective of the simulation is to make the learning subjects, think 'What is it I'm doing wrong?'

Findings

In the analysis, we examined the business simulation, Wallbreakers. This revealed a set of design principles that has guided the designers' assemblage of the game. The analysis showed how the core of the learning arrangement was located in the game figures and how the performative potential resides in the mechanics and techniques that accompany these figures. The designers have created figures that are more indicative and abstract than naturalistic, to allow the learning subjects' imagination to take part in the articulation of change management. The figuration processes leading to Wallbreakers involved translation of established canonical texts and models and already naturalized business simulacra. To this end, the designers sourced popular business discourse, providing both inspiration for the game's categories and intellectual legitimacy. The simulation achieves consistency and uniformity by including only a few select renderings while neglecting the alternatives. The figuration process morphs the sourced discourse into figures and attaches them to the conventions of ludic design. Thereby, Wallbreakers fortifies and energizes already established simulacra of change management.

The figures provide a framework for thinking of, and observing a business reality. Part of the learning objective is for the subjects to become sensitive to this reality representation. Furthermore, the game pushes learning subjects into making suboptimal managerial decisions, a set-up for learning subjects to problematize themselves, each other, and the organization. The game utilizes mechanics that set the learning subject up for inevitable failure, fertilizing the grounds for explorative discussions and introspection. This mechanism affords the learning subjects to connect personal problematic experiences and discuss them under uniting figures presented in the game. The designers intend the dilemmas to provoke a sense of doubt and allow for its articulation.

Wallbreakers presents us with a peculiar mix of the popular, the infantile, the ironic, and the critical. This alternative skew on business reality stages an act apart, designed to challenge the learning subject's regular ways of thinking. As a playful way of unveiling business problems, Wall- breakers is an example of what can happen when the creative industry meets the conventional business world. It is a precarious manifestation of the new spirit of capitalism (Boltanski & Chiapello 1999/2007), which lends its existence to ideas and techniques that otherwise, resides in arts and entertainment. On par with the constraints put on filmmakers during the Dogma movement, which unleashed creative potentials through provocative obstructions, Wallbreakers provokes learning subjects to articulate problems in the refracted reflection of the simulacrum's magic mirror, the eye of the dragon. A fine-tuned provocative machine that lures the figure–matrix to throw itself at it, allowing the revelation of the suppressed by tunneling its expression.

Through its translations of business discourse, mechanics, and techniques, Wallbreakers intends to push learning subjects into a contemplative and transformative process aimed at making them want to realize themselves in the image of the exemplary figure of the change agent. In the function of a modern despiritualized anthropotechnique, that urge business subjects to change their lives (Sloterdijk 2013), the case of Wallbreakers presents us an example of how provocative techniques are used to fuel these training processes. Ultimately, it is a characteristic of the simulacrum that 'It problematizes reality' (Muniesa 2014, p. 23).

Discussion

What can Lyotard's theorization on figure and discourse add to examinations on the performativity of business simulacra? Lyotard offers a perspective on the simulacrum that specifies and broadens the space of its performativity. The triadic model of figures highlights how the performativity of an image or a business model, a simulacrum, ties to discourse, other resembling forms, and the deep configuration of the perceiver's subconscious. With the notion of figure–matrix, Lyotard couples sensitivities from psychoanalysis to the assessment of the simulacrum's performativity stressing the influence of properties like the unrealized real, psychic projections, desire, and fantasy. Lyotard (1971/2011) expands on the process of figurality by emphasizing that projection of the subconscious onto image–figures is not a pure process. Contamination happens when the subconscious articulates itself through the mediation of a figure–image. The figure–image co-constitutes the figure– matrix as it offers a frame for containing its projection, but it occurs in a process, which fundamentally distorts the figure–matrix. Figures exist in what Lyotard (1971/2011, p. 50) calls a 'figural space,' an event between figure–image and observer that fusses the parties (Callan and Williams 2011). A space without sharp boundaries between sign and signified, signification, and designation. A space which connects the three states of figures (Lyotard 1971/2011, p. 129). The figural space enables the figure–image to convey more potential of meaning, than any discourse of pre- defined meaning ever could. In the figural space, figures dynamically and mutually exploit each other as the significance of the event emerges. Any line, color, suggestive associations to discourse, or shortcomings of representational accuracy of the figure–image, is an invitation to the figure– matrix to reveal itself differently. By conceptualizing the business simulacrum through the Lyotardian framework of figure and discourse, we can grow more sensitive to how designers assemble business simulacra, not only to condense and express discourse but also, how they may find ways of attaching the business simulacrum to the 'originary repression' of the figure–matrix (Lyotard 1971/2011, p. 268). Ludic simulacra, like those observed in Wallbreakers come to enact the role of transitional objects (Winnicott 1971), substitutes of the actual, bridges to the repressed, and tools for coping with the anxiety of business reality. Simultaneously, ludic figures can serve as provocateurs of the real, mobilizing anxiety, which can be another vehicle for learning (Muniesa 2020). This style of thinking brings new caveats to our way of thinking about the performativity of business simulacra as it affords sensitivity to the vibrant space between the perceiver, the perceived, and the techniques through which simulacra take a seat in business subjectivities.

Following Muniesa's proposal that we must study simulacra to understand business realization (Muniesa 2014), the current paper has considered the relevance of introducing Lyotard's conceptualization of the figure into the conversation. The introduction of Lyotard's (1971/2011) theory of figure and discourse adds to the debates on business simulacra, and provides a vocabulary, and a set of sensitivities to consider when examining business simulacra's performativity. This pro- vides a perspective that allows us to see simulacra as unfolding events occurring in the space between the representation, the represented, the perceiver and available discourses, affording us to expand and specify the space in which we perceive the business simulacrum to operate. The paper suggests that the work of Lyotard offers more to performativity studies than has already been credited.

Notes

1. See appendix 1 for an overview of the used data.
2. Psychiatrist and existential psychotherapist Viktor Frankl (1959) referred to the concept of 'paradoxical intention' in his logotherapy. He promoted the idea of humor as a therapeutic technique for exposing patients to fear provoking objects. The therapist should arrange situations in which the patient would *want* to face the feared. As Frankl (1959, p. 128) described it, humor sparks the 'human capacity for self-detachment' and with this 'the patient is enabled to put himself at a distance from his own neurosis.'

References

Abt, Clark C, 1987. Serious games. London: University Press of America.

Agger, Ask, 2016. Medfortæller - mening, involvering og lederskab i vores komplekse verden. Copenhagen: Gyldendal Business.

Baudrillard, Jean, 1981/1994. Simulacra and simulation. (Glaser, Sheila Faria Trans). Ann Arbor: University of Michigan press. (Original work published in 1981).

Blumberg, Fran C., Almonte, Debby E., Anthony, Jared S, et al., 2013. Serious games: What are they? What do they do? why should we play them. In: K.E. Dill, ed. The Oxford handbook of media psychology. Oxford: Oxford Library of Psychology, 334–351.

Boltanski, Luc, and Chiapello, Ève, 1999/2007. The new spirit of capitalism. London: Verso. Callan, Guy, and

Williams, James, 2011. A return to Jean-François Lyotard's discourse, figure. Parrhesia, 12 (12), 41–51.

Chia, Robert, 1999. A "Rhizomic" model of organizational change and transformation: perspective from a metaphy- sics of change. British Journal of Management, 10 (3), 209–227.

Deleuze, Gilles, 1969/1990. The logic of sense. London: The Athlone Press.

DeRue, D. Scott, and Myers, Christopher G., 2013. 'Leadership development: a review and agenda for future research'. In: D.V. Day, ed. The Oxford handbook of leadership and organizations. New York, NY: Oxford University Press, 832–855.

Giddings, S. and Harvey, A., 2018. Introduction to Special Issue Ludic Economies: Ludic Economics 101. Games and culture, 13 (7), 647–651.

Gond, J.-P., et al., 2016. What do we mean by performativity in organizational and management theory? the uses and abuses of performativity. International Journal of Management Reviews, 18 (4), 440–463.

Green, Melanie C., Brock, Timothy C., and Kaufman, Geoff F, 2004. Understanding media enjoyment: the role of transportation into narrative worlds. Communication Theory, 14 (4), 311–327.

Hilgers, Philipp von, 2012. War games: a history of war on paper. Cambridge: Mass: The MIT Press. Huizinga, Johan, 1949. Homo Ludens. London: Routledge.

Justesen, Lise, 2020. Actor-network theory as analytical approach. Qualitative Analysis: Eight Approaches for the Social Sciences, 327, 329–343.

Kotter, John P, 1996. Leading change. Boston, MA: Harvard Business Press.

Lange, Ann-Christina Petersen, 2012. Inclusive differentiation: A study of artistic techniques and devices of innovation. London: Centre for the Study of Invention and Social Process Department of Sociology.

Law, John, 2002. Economics as interference. Cultural Economy: Cultural Analysis and Commercial Life, 21–38.
Lewin, Kurt, 1945. Resolving social conflicts and field theory in social science. New York, NY: Harper & Brothers.

Lezaun, Javier, 2011. Offshore democracy: launch and landfall of a socio-technical experiment. Economy and Society, 40 (4), 553–581.

Lezaun, Javier, and Muniesa, F abian, 2017. Twilight in the leadership playground: subrealism and the training of the business self. Journal of Cultural Economy, 10 (3), 265–279.

Lezaun, Javier, Muniesa, Fabian, and Vikkelsø, Signe, 2013. Provocative containment and the drift of social-scientific realism. Journal of Cultural Economy, 6 (3), 278–293.

Linderoth, Jonas, 2012. 'Why gamers don't learn more: An ecological approach to games as learning environments'. Journal of Gaming & Virtual Worlds, 4 (1), 45–62.

Lyotard, 1971/2011. Discourse, figure. (Hudek, Anthony & Lydon, Mary, Trans). Minneapolis, MN: Minnesota Press. (Original work published 1971).

Lyotard, Jean-Francois, 1984. The postmodern condition: A report on knowledge. Translated by Geoff Bennington and Brian Massumi. 1st edition. Minneapolis: University Of Minnesota Press.

Maurer, Rick, 1996. Beyond the wall of resistance: unconventional strategies that build support for change. Portland, OR: Bard Austin.

Michael, David R., and Chen, Sandra L, 2005. Serious games: games that educate, train, and inform. Boston, MA: Thomson Course Technology PTR.

Muniesa, Fabian, 2014. The provoked economy. London: Routledge.

Muniesa, Fabian, 2017. The live act of business and the culture of realization. HAU: Journal of Ethnographic Theory,7 (3), 347–362.

Muniesa, Fabian, 2020. 'Business education and anxiety in the performance of value'. In: D. Stark, ed. The performance complex: Competition and Competitions in Social life. Oxford: Oxford University Press, 260–270.

Muniesa, Fabian, Chabert, Dominique, Ducrocq-Grondin, Marceline, et al., 2011. Back-office intricacy: the descrip- tion of financial objects in an investment bank. Industrial & Corporate Change, 20 (4), 1189–1213.

Muniesa, Fabian, and Trébuchet-Breitwiller, Anne-Sophie, 2010. Becoming a measuring instrument. Journal of Cultural Economy, 3 (3), 321–337.

Myers, Isabel Briggs, 1962. The Myers-Briggs type indicator: manual (1962). Palo Alto, CA, US: Consulting Psychologists Press.

Pias, Claus, 2017. Computer game worlds, 1 edition. Zürich: Diaphanes. QSR, QSR International, 2015. NVIVO.

Randall, Julian, and Procter, Stephen, 2008. Ambiguity and ambivalence: senior managers' accounts of organizational change in a restructured government department. Journal of Organizational Change Management, 21 (6), 686– 700.

Rosenbaum, David, More, Elizabeth, and Steane, Peter, 2018. Planned organisational change management. Journal of Organizational Change Management, 31 (2), 286–303.

Rost, Joseph Clarence, 1991. Leadership for the twenty-first century. New York: Greenwood Publishing Group.

Salen, Katie, Tekinbaş, Katie Salen, and Zimmerman, Eric, 2004. Rules of play: game design fundamentals. Cambridge, MA: MIT press.

Schepelern, Peter, 2005. Film according to Dogma: ground rules, obstacles and liberations. In: A. Nestingen and T.G. Elkington, eds., R. Christensen, tran. Transnational Cinema in a Global North: Nordic Cinema in Transition. Detroit, MA: Wayne State University Press, 73–107.

Sloterdijk, Peter, 2013. You must change your life, 1 edition. Cambridge: Polity.

Sørensen, Bent Meier, and Villadsen, Kaspar, 2017. Penis-whirling and pie-throwing: norm-defying and norm-set- ting drama in the creative industries. Human Relations, 71

Suchman, Lucy, 2012. Configuration. In: C. Lury and N. Wakeford, eds. Inventive methods - The happening of the social. New York, NY: Routledge, 62–74.

Suchman, Lucy, 2016. Configuring the other: sensing War through immersive simulation. Catalyst: Feminism, Theory, Technoscience, 2 (1), 1–36.

Sveningsson, Stefan, and Larsson, Magnus, 2006. Fantasies of leadership: identity work. Leadership, 2 (2), 203–224.

Winnicott, D. W, 1971. Playing and reality. Oxford: Penguin.

Wolfe, J., 1993. A history of business teaching games in English-speaking and post-socialist countries: The origination and diffusion of a management education and development technology. Simulation & Gaming, 24 (4), 446–463.

Zimmerman, E, 2015. Manifesto for a ludic century. In: S.P. Walz and S. Deterding, eds. The Gameful World: Approaches Issues, Applications. Cambridge, MA: The MIT Press, 19–22.

Zoller, Heather M., and Fairhurst, Gail T, 2007. Resistance leadership: The overlooked potential in critical organization and leadership studies. Human Relations, 60 (9), 1331–1360.

Appendices Appendix 1

Overview of data sources in use
Although more data sources were available, the current article draws on the following data from the research project.

- Interviews with two consultants from consultancy
- Interview with one game designer
- Observations of promotional events with clients – three full-day events
- Participant observation of facilitator training at consultancy
- Reading of facilitator guide and examination of game material
- Reading of materials, books, and book chapters published by the consultancy members

Article 2

Archaic Torso of Apollo

We never knew his head and all the light
that ripened in his fabled eyes. But
his torso still glows like a gas lamp dimmed
in which his gaze, lit long ago,

holds fast and shines. Otherwise the surge
of the breast could not blind you, nor a smile
run through the slight twist of the loins
toward that centre where procreation thrived.

Otherwise this stone would stand deformed and curt
under the shoulders' transparent plunge
and not glisten just like wild beasts' fur

and not burst forth from all its contours
like a star: for there is no place
that does not see you. You must change your life.

(Rilke (1908), Translated by Edward Snow (2010) referenced in Sloterdijk 2009-2013, p. 21)

Elevating managers – Examining the anthropotechniques of a business simulation

Esben Langager Olsen*[1] and Johan Simonsen Abildgaard[2]

[1]*National Research Centre for the Working Environment, Copenhagen, Denmark*

[2]*Department of Organization, Copenhagen Business School, Copenhagen, Denmark;*

Abstract

When organizations want to improve, a frequently chosen solution is employ leadership development programs that involve going outside the everyday organizational practice, establishing instead a transformative liminal space. Besides meeting the critique of neglecting the reality of practice, two different types of risks have been highlighted. Programs that are too open-ended risk developing managers in a way that is unrelated or maybe even harmful to the organizational needs, while programs that are too structured risk developing the manager under false premises, as the liminal space will never reflect the full complexity of leadership. We approach leadership development programs from an alternative perspective drawing on Sloterdijk's study of anthropotechniques. The anthropotechnical perspective helps us reconsider how the balancing of risks is addressed in contemporary leadership development programs and the sort of developmental change they enable. We study a leadership development program, the serious game Wallbreakers, deployed in a Danish biotech company. The analysis is a qualitative case study tracing the trajectories of two participants through the program. Data consists of video, audio and observations of the training as well as interviews. In the analysis, we draw on Sloterdijk's notion of elevation, using it for reconsidering the program's effects and techniques. We show how the program both elevates the participants' sense of competence through the game mechanics, while also humbling the participants, as they simultaneously formulate higher abstract goals for themselves, which they fail to find ways of accomplishing. We consider this dual development a practical answer to the dual risk of leadership development.

Keywords:

Leadership development, liminality, elevation, serious games, lean.

Introduction

'You have to reflect on yourself, when you sit and play a game like that. Where the hell am I in all of this? I'm probably one of the good ones, right?'

(Erica, associate manager)

Within the realm of business practice and organizational sciences an area of substantial interest is that of leadership development. As skillful and competent leadership is linked to organizational performance (Thomas 1988), it follows that a development of leadership and leaders will have beneficial impact on the organization (Avolio *et al.* 2009). Subsequently leadership training has proliferated during the last decades focusing on specific leadership styles (Bass 1999) and specific leadership challenges (Higgs and Rowland 2000). The format of leadership training takes many forms, from mentoring, online self-study, classroom training and off-site personal development workshops (DeRue and Myers 2013).

This paper focuses on a certain cluster of leadership development methods, namely those that function through techniques of pulling the participants out of their regular organizational environment to allow an alternative engagement with organizational problems. Most noteworthy of these are T-groups, simulation based education, the Harvard Business School Case Method, MBA's and various types of teambuilding exercises.

The idea of stepping outside of the everyday tasks into a 'liminal space' (Czarniawska and Mazza 2003) to reflect and develop is widely recognized as a practical approach (Blumberg *et al.* 2013) and a significant research area (Stephenson 2020). There has also been substantial critique of leadership development programs, specifically that learning should derive from engagement with actual organizational practice, rather than classroom training (Mintzberg 2004, Fernández-Aráoz *et al.* 2017). In addition to the longing for actual practice, two lines of critique have been raised. One type of critique focuses on the risk of mindless repetition of the learned material in a practice that dissembles that of the liminal space. Game- and simulation based education often face the critique that their teachings have little to no real world utility, and may even lead learnings subjects astray (Linderoth 2012, Suchman 2016, Pias 2017, p. 231). The risk of careless repetition of the learned can become particularly problematic if the teaching method provides readily applicable procedural directives. The other type of critique is related to the learning program's ability to untame the manager, fostering a more liberal and disloyal organizational relationship, which can happen in leadership development programs that provoke open ended critical reflexivity (Highhouse 2002, Larsson *et al.* 2019).

We explore this problem of the liminal space of leadership development, by qualitatively examining a case of game-based change management education in a Danish biotech company. The aim is to shed light on the method's transformative potentials of this particular training format and explicate how the format balances the risks of liminality; mindless repetition and untaming of the manager. Theorizing the analysis, the article first presents the relevance of a concept of 'liminality' (Turner 1969) as a way of recognizing 'liminal space' in organizational contexts broadly and in leadership development more specifically (Czarniawska & Mazza, 2003; Howard-Grenville, Golden-Biddle, Irwin, et al., 2011). Furthermore, the we draw on the concept of 'elevation' (Sloterdijk, 2009-2013) to contextualize leadership development in a theorization on self-development techniques.

The paper shows how the serious game provides managers with an occasion for sensing both higher leadership competency and leadership inferiority. We suggest that this seemingly paradoxical outcome is a natural consequence of the deployment of elevating mechanics in liminal spaces, which both provides an artificial impression of the manageability of organizational problems, while also suggesting the need for higher abstract goals to be obtained. The paper ends with a discussion on the balancing of risks and potentials of leadership development in liminal spaces.

The mechanism of elevation in liminal spaces

It has been argued that leadership training programs, that operate via the establishment of liminal spaces, such as MBA's, fail to provide a teaching setup that produces learning useful in daily practice. The argument being that leadership ought to be taught in organizational practice not outside it (Mintzberg 2004, Fernández-Aráoz et al. 2017). More broadly, the link between doing and the knowing represents a consistent tension for leadership development (Bolden 2016), which easily leads to conclusions that leaving the organization in order to learn about it is a waste of time.

We encourage a more nuanced approach to leadership development with open consideration on the potentials of the leadership teaching methods. The theoretical inspiration is drawing primarily from Turner's (1969) concept of 'liminality', originating from his studies in tribal rituals, and Sloterdijk's (2009-2013) concept of 'elevation' originating from his study of anthropotechniques, techniques and technologies for exercising the self. Both concepts have been developed and used to theorize transformative arrangements outside normalcy. In this section, we present this conceptual pairing and argue that it provides a useful perspective for studying leadership development techniques.

In Sloterdijk's (2009-2013) study of anthropotechniques, he sets out to examine self-exercising regimes that elevate the subject's performance, detaching the subject from the constraints of habits. In Sloterdijk's words, the subject is possessed by habits, through participation in society and continuous enactment of said habit (Sloterdijk 2009–2013, pp. 160–170). True anthropotechniques are 'catapults' that launch the subject beyond habits and enable the subject to improve the world by revealing new ways of thinking and performing(Sloterdijk 2009–2013, pp. 190–194). Examples are mountaineering, philosophical gymnastics such as stoic meditations and some forms of religious practices, that enable a 'view from above […] which brings about the necessary elevation and loosening of the spirit, which can provide the distance we need in order to see things as they really are' (Hadot, 1995: 244-247).

Upwards striving is hardcoded into organizational structures, and facilitates the development of an ascetic culture, which ties subjects to an eternal pursuit of auto-elevation (Halsall & Brown, 2013). Consider for instance thought figures like Bloom's (1956) taxonomy of educational objectives or the charted pyramid of human needs used in organizations to orient HR practitioners on how to design optimal care for their human capital (Bridgman, Cummings & Ballard, 2018). The organizational chart, with its strict hierarchy of stacked ascending levels similarly resonates the theme of verticality. Organizational subjects become accustomed to, and even attracted to, anthropotechnical systems which promote explicitly prescribed 'ladders' (Sloterdijk, 2009-2013: 126) in form of exercises that must be performed and tasks that must be overcome, and achievements that must be obtained, all in the name of reaching improbable 'summits' (Sloterdijk, 2013: 181) of awe-inspiring but unsustainable performance (Sloterdijk, 2009-2013: 127-130). The constant preoccupation with leadership development only bolsters the observation that leadership is yet another arena of ascetic exercising with a constant pursuit of abstract exemplars and elevating ones performance to realize the 'perfectionist vita' (Halsall 2016).

Sloterdijk speaks of 'secession' as a crucial mechanism for enabling elevation, the act of withdrawing from the normal world mentally and sometimes physically. Secession is often facilitated by a physical and symbolic arrangement. In secession 'the withdrawn individual gain mental intensity by isolating themselves monothematically' (Sloterdijk, 2009-2013: 233), and become enabled to relate to the normal in an abnormal way. Sloterdijk considers schools, monasteries, military training grounds, gyms and hermits' caves to be examples of physical sites that by design offer a form of secession that promotes and enables development focused exercise, outside the confinements of habits.

The idea of secession as a vehicle for personal development resonates deeply with Turner's (1969) studies of liminality in tribal rituals. Liminality refers to an ambiguous social structure of the phase in between two states of being. A threshold state between normal social structures and an arranged anti-structure (Turner 1969). Turner borrowed the concept of liminality from Van Gennep's study of 'rites de passage', the structuring of sacred events through rituals, aimed at facilitating the passing of life crises or essential life phases (Van Gennep 1960). Van Gennep defined a three phased archetypical framing of the ritual; consisting of a separation, liminality and incorporation. The three phases both pulls the individual out of normalcy, makes the individual perform certain tasks or exercises during in liminality and afterwards incorporating the individual back into the societal structure they were pulled from. Through the establishment of an anti-structure in the liminal phase, the subject is allowed to do abnormal things as it has been detached from certain constraining social structures, which allows for experimentation with novel ways of being. Liminality 'is at once serious and playful' (Turner 1982, p. 35). Liminal spaces are similarly characterized as a carefully arranged social and material symbolic arrangement, which pulls the subject out of societal frame, in which the subject performs certain rituals, and allowed to engage with higher reflexivity, while upon exiting, is expected to have obtained a transforming enlightenment. Be it the careful arrangement of a liminal space for fostering cultural change (Howard-Grenville et al. 2011) or the organizational consultant's work of arranging theatres of images and metaphors, fostering a liminal space between theory and practice (i.e. the sacred and the profane) which organizations can play with in pursuit of some transformative potential (Czarniawska and Mazza 2003). The concept of liminality offers a certain perspective on organizational activities that are detached from mundane work, as their function as vehicles for transition and development becomes apparent, in a way that resonates with Sloterdijk's observations on anthropotechniques.

The dual problem of liminal spaces in leadership development

Secession in leadership development presents two kinds of risks. The first being that detaching from actual organizational practice can lead to managers to reach unexpected conclusions (some that may be detrimental to the organization), as they are no longer constrained by organizational habits. In contrast the second risk is that the artificial presentations of organizational problems and solutions that often structure the activities in liminal spaces can lead learning subjects to rely too much on these simplifying images of cause-effect relationships. In the following, we illustrate these inherent risks of liminal spaces of leadership development by contrasting the method of t-groups with the method of serious games, which also serves to contextualize the case in a more general problem.

Both t-groups and serious games were introduced to the business world around the late 50's. T-groups grew out of the Tavistock tradition lead by Lewin. The T-group method relied on a simple arrangement of chairs placed in a circle so that participants would look at each other. Through this artificial social arrangement and a facilitator's occasional interpretive comments on the specific group dynamics, the training format was designed to provoke actions and reactions among the participants with the aim of enabling a transformative learning experience. T-groups were thought of as 'cultural islands', a space where a group can 'unfreeze' and undergo change, away from its change constraining and inertia inducing social system (Lewin 1951, p. 232). A classical precursor to the practical tradition of arranging organizational interventions through liminal spaces (Howard-Grenville et al. 2011).

T-groups developed to be an effective form of intervention, but it came with a risk, that the situation would get out of control and eventually cause more damage than good, a fact the facilitator had to be sensitive towards (Vikkelsø 2012). Observing how participants often had difficulties expressing what exactly happened during the T-group exercises and how it had affected them McGregor (1960) referred to the term 'gut learning' to describe the opaqueness of the cause-effect dynamics in the learning arrangement. Stories of detrimental outcomes, such as reports of participants experiencing T-groups as traumatizing and managers reporting that returning participants had grown defiant as a result of their participation, led to a significant decrease of the use of such methods both in psychotherapeutic circles and, in particular, in the business world (Highhouse 2002).

In contrast, serious games have managed to stay relevant for businesses. Over the years the availability of, especially digital, business games has expanded substantially (Boyle, Hainey, Connolly, et al., 2016) though board game styled games appear to continue to stay relevant (Gudiksen & Inlove, 2018). The reason for this consistent and growing use of the game format is linked to a general hype and seeming efficiency of integrating ludic elements into social technologies (Zimmerman 2015). Some risks associated with t-groups comes from the open-ended 'minimalistic' format (Vikkelsø, 2012) through which it contained its provoked reflections (Lezaun, Muniesa & Vikkelsø, 2013,). Serious games, on the other hand, tend to be more tightly structured, limiting the risk of reflexivity fallouts. Serious games are commonly structured by rules and artifacts that channel the reflections towards more pre-established conclusions. Originally developed with inspiration from the military's war games (Pias, 2017), the first business offered managers an opportunity through simulation based games that would adaptively respond to the players inputs to practice management skills such as strategic decision making and inventory management (Greene & Roger 1959, Keys & Wolfe, 1990). Serious games usually resemble conventional games by arranging rule bound activities, a gratification system, a competitive or collaborative framing, win conditions and aesthetic and symbolic elements to tie the parts together forming a coherent experience (Salen, Tekinbaş & Zimmerman, 2004). Managers are expected to learn how to deal with organizational reality by engaging with simulated problems (Blumberg, Almonte, Anthony, et al., 2013). Through this managers are made to enact certain normatively defined choices and behaviors in order to satisfy the game system. In effect, serious games provide a setting for managers to enact exemplary management in a format akin to pretend play. In addition to the reduced risk of unexpected outcomes, serious games may also appeal to businesses through the sheer thrill and excitement of the educative actions. Game designers are said to assemble 'dramatic representations' (Abt, 1987: 13) of actual business problems in what has been described as a 'seductive atmosphere' (Elmholdt, Clausen & Madsen, 2018) which may intensify the developmental experience.

Serious games and the use of simulations in leadership training present a moral tension, which relates to what has been described as 'the problem of the simulacrum' (Muniesa 2014), that is, discomforts related to practical and philosophical concerns arising from engagement with artificial reality constructs. This infantalization of the managerial role offered by such teaching formats may indeed provide a sense of becoming armored to withstand the real challenges of managerial work, but the gain in confidence is derived from simulated, ultimately false, conditions of a 'sur-real' or 'sub-real' presentation of business reality (Lezaun and Muniesa 2017). Simulations and games often face the critique, that their reality (mis)representations fail to teach anything of actual utility, and may even lead learnings subjects astray, a critique that runs back to the dawn of serious game, which does not seem to be overcome by increased technical sophistication (Pias 2017).

Though the t-groups and serious games seem miles apart, they share both a trait of utilization of a liminal space, but also that they are associated with different kinds of risks of leading learners down paths that are detrimental to the organization. This represents a fundamental paradox in leadership development, that it seeks to liberate the manager from constraining habits, but with the obstruction that the organizational alignment and loyalty must remain intact (Larsson et al. 2019). Striking a balance of delivering a constrained liberation that is flexible, authoritative and relevant to the organization, appears to be a consistent core problem for leadership development programs deploying techniques of liminality. In the market competition, it appears serious games currently are in vogue, which makes us wonder, how this specific teaching method balances these requirements, and what this tells us about the function of elevation in liminal spaces. In consideration of this, we pose the research question: How is open-endedness and structure balanced in a transformative leadership education program? and what form of change does this balancing enable?

Method

We gathered our empirical material during an experimental intervention in 2017 in a Danish biotech company. The experiment aimed at examining the effects of a serious game on the participants' ability to facilitate the change processes relating to the company's Lean transformation. Lean refers to the business ideal of waste-free production flow (Womack, Jones & Roos, 1990). Lean implementations are often met by employee resistance, and accordingly tend to leave managers in doubt about how to succeed in putting the Lean tools and principles into practice (De Cock, 1998) The Lean-Office in the biotech company experienced difficulties achieving the anticipated outcomes, which they began associating with a lack of change management capability in the organization. Since the company was already familiar with serious games in other parts of the organization, the Lean Office deemed the intervention potentially viable for addressing the Lean transformation issues, and the research project was put in place. The training participants were managers from three levels of the organization plus personnel with Lean-responsibility, such as technicians and local Lean supporters. 25 participants attended the workshops analyzed in this paper. Prior to the first workshop they had had little information about the workshop's form or content. They had been told only that the company considered this a part of their Lean training, and that the training was to be studied by external researchers. The intervention consisted of a training program of four workshops. The first two workshops made use of the game, Wallbreakers, which will be in focus in the present analysis.

We observed all workshops to get a first-hand impression, meanwhile we produced field notes. We also video- and audio recorded the activities. After each workshop we invited 5 managers to do a 20 minutes phone interview on the following day, so we could get a sense of their thoughts on what they had experienced. The interviews were semi-structured and followed an interview guide containing three themes; immediate impression, learning points, and points of critique. Four months after the final workshop, we conducted follow-up interviews with all participating managers. These interviews were also semi-structured having a duration of 45-60 minutes. The interviews allowed us to gain more knowledge on how the participants were coupling the game experience to their work. We read all material related to the workshop; facilitator-guide, handouts, workbook and Powerpoint presentation. We loaded all video and audio material into NVIVO to facilitate data management and coding process.

Table 1 Data overview

Video recordings from Serious game workshops	≈ 64 hours
Audio records from Serious games workhops (Two audio recorders)	≈ 128 hours
Phone interviews with workshop participants (the day following the workshop)	≈ 13 hours
Follow up interviews with participants (6 months after the intervention)	≈ 18 hours
Material	Booklet, facilitator guide, additional handout, Powerpoint slide show

Approaching the vast dataset we chose to follow a basic principle; being sensitive to occurrences that surprised us (Mol, 2010). A particularly impactful surprise for us occurred at the third workshop, when one researcher overheard a manager, Erica, proclaiming she had swapped an employee with another manager as a consequence of participating in the first two workshops. We decided to follow the case of Erica's decision. From interviews we learned that the impact of the game also related to reflections on her ability to carry her management burden, as well as a changing perspective on the Lean transformation. With inspiration from Justesen's (2020) we made a timeline of her trajectory through the workshops and the associations Erica made to her Lean responsibilities. The mapping led us to refine our analytical lens. We included Erica's superior Bruce in the analysis and made a timeline for him too. We noticed a pattern. In describing the effects of the management education both articulated that changes in their perspectives occurred. We gathered our findings and wrote a narrative account presenting the events, coupling this to theorizing remarks based on the theoretical concepts of elevation and liminality. The analysis starts with a description of the simulation content followed by a description of how workshops unfolded. The analysis focuses on episodes revolving around shifts in Erica and Bruce's narratives on themselves and the Lean transformation.

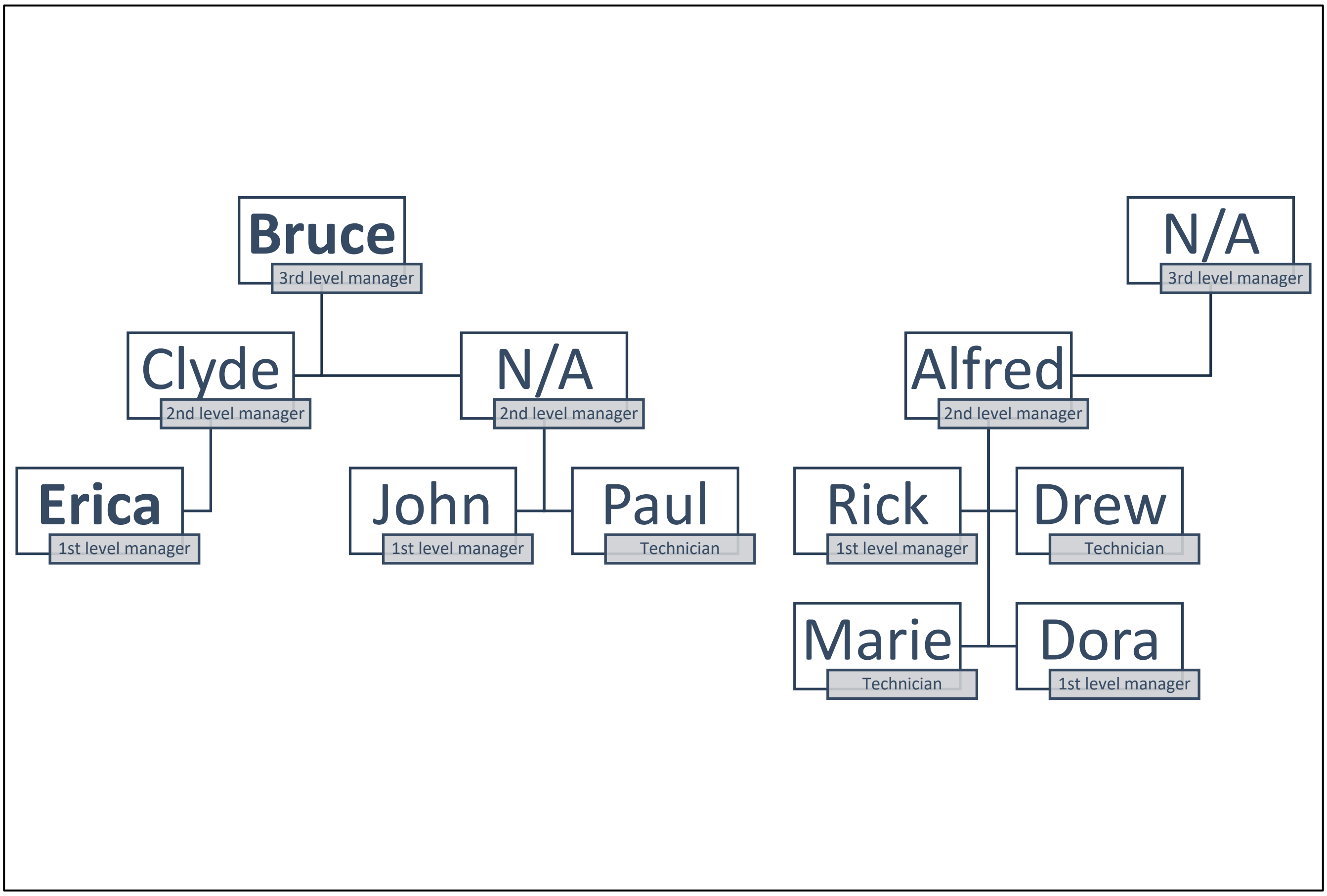


Figure 1 Organizational chart showing relations of learning subjects appearing in the analysis

Analysis

Establishing a liminal space

Wallbreakers is a board game styled simulation designed to educate business subjects in the discipline of change management. On the global market, the game is becoming increasingly popular, and the original Danish version, has now been translated into 11 languages. Wallbreakers is a generic tool put to use across industries and regions to help companies improve their change management performance. The simulation focuses on the human side of change, the emotional response to change, and how to deal with organizational change. In the game, groups cooperate on making change management decisions, seeking to get their departments through a company merger, with a dual aim of having all employees on board the change, while ensuring a successful merger. Groups compete against each other in pursuit of the highest score.

The game material consists of the following core artifacts. A game board figures the change process as a road divided into three phases; start-up, implementation and anchoring. Around the road runs a pavement, figuring three levels of resistance, representing the model of change psychology the training technology promotes.

Level 1, I don't understand the change,

Level 2, I don't like the change level,

Level 3, I don't trust the change.

Each group receives a designated bus, resembling their department. The bus contains ten employees, resembling Ludo styled figurines. Each employee has a letter on top, which reference descriptions of the individual's personality type plus their position and history in the company. Accompanying booklets help build the narrative around the game and instruct the learning subjects on how to play the game. The game operates through the execution of leadership choices. Throughout the game the groups make choices on the speed of which they want to implement changes in each of the three phases. This is represented by gear-cards. Choosing a low gear, means slow implementation, and more catering to the daily operations, choosing a high gear signifies choosing an aggressive focus on change implementation. Depending on the choice of gear, some employees will move from the bus to one of the resistance levels. To mitigate this problem the players have to choose between leadership actions; for instance giving a motivational speech, or having one-on-one's to get employees back up on the bus. The group, which completes the three phases with the highest speed and largest amount of employees on the bus, wins. The game is designed to make the managers experience failures along the way, and the mechanics of people constantly falling off the bus and the degree of uncertainty baked in to each decision ensures that failures and problems will be part of the game experience. If participants object to the game's mechanics, and the adequacy of its reality portrayal the consultants will maintain that the game's mechanics have been built with inspiration from leading change management literatures, but that they 'will never the defend the game', stressing that 'the game is just a game', and what matters the most is the managers' personal experience of change management in their.

The simulation is designed to educate through the introduction of its key metaphors providing a common language on change management, as well as establishing collective awareness of the risks and potentials associated with organizational change. The metaphors are materialized in the game's mechanics and objects; gears, resistance levels and change phases. The game's responses, its mechanics, gratify or castigate the players depending on the choices they make. Lastly the game intends for players to learn by offering them a facilitated space for reflecting on their praxis as managers. Both when playing the game, but crucially, also in reflective dialogue between game phases.

In a conceptual sense, the business simulation and the anthropotechnique are entangled in the case of Wallbreakers. The game mechanics, its gratifications and castigations, sketch the contours of a leadership ideal, an exemplary figure, which the players can strive to approximate while engaging with the training technology. The simulation offers a virtual elevated perspective on an organizational phenomenon, and affords players to play, and learn from, this figured fantasy of business reality. Wrapped in childish aesthetics the simulation abstracts a serious organizational theme, commodifies it as a generic educational bundle, complete with prefigured ladders, summits and elevated perspectives on business problems.

Figure 1 Stock photo of Wallbreakers, (Workz)

Obtaining a sense of elevated competence

Beyond the game artifacts, the training technology depends on the arrangement of a site. The Wallbreakers workshop we observed took place in the conference hall at the company headquarter. The consultants arranged the tables to form group tables at the four corners of the room. This would allow for both group work and rapid shifts to plenary discussions. A Lean consultant had been given the task of assigning participants to groups to achieve as fruitful discussion as possible. Erica and Bruce sat at different tables. In the center of the room the game board was placed on the floor. Four plastic busses placed on the field labelled ‘start-up phase’. A projected image of the consultancy’s logo was on the screen. Here the consultants would project a few Powerpoint slides. As the participants entered and found their groups, the suit wearing consultants bid welcome and casually talked with the Lean consultant. The participants were for the most part dressed casually. Those coming straight from their production sites were wearing white work-uniforms and safety shoes. At 9.00 AM the consultants asked of the door to be shut, to allow for the workshop to begin. The setting provided the initial basis for establishing a liminal space by locating the participants in a room at the symbolic heart of the business, juxtaposed with the presence of an uncanny mix of infantile game artifacts and suit wearing external consultants directing the action.

Figure 2 Image of workshop site. Blurred for anonymity

The lead consultant presented the workshop and its intended ties to their Lean roll out. The consultant described the workshop as an opportunity to 'practice change management'. To make his point clear, he used the analogy of football players. Noting that Real Madrid would never show up for an important match without having practiced beforehand. Additionally, they emphasized that when it comes to change management, many companies default to do exactly this - execute organizational changes without practicing it first. The game would provide a solution to this problem. The consultants further stressed, that the workshop would only be as effective as the participants would allow it to be, encouraging them to share good and bad change management experiences so that everyone could learn from them. For the most part, the participants listened in silence, some nodding and smiling. Yet, from the audio recordings we noticed that Erica at the early stages of the workshop whispered skeptical remarks at the consultants for herself. But her attitude seemed to shift after the first game figures had been introduced. Listen to a glimpse of how Erica responded to the introduction of the figuration of the three levels of resistance .

(Consultant):	Do these three levels make sense?’

[One of the audio-recorders picks up a subtle response, not loud enough for the consultant to hear.]

(Rick 1st level manager at the table):	Mmh [Subtle appreciative mumble]
(Erica):	It does actually [Whispering]

Interviews revealed a pattern of appreciation of the game’s figures, which were taken to be practical tools. Erica noted that she could use the figures to see the organization differently, enabling her to think differently about her work. Especially the figure of the three levels of resistance struck a nerve when Erica in the interview recounts the workshop. In the interview she highlights an appreciation of: ‘The pictorial. The picture in having some people who you can put in these boxes’. Even though the figure of resistance could be seen as an overly simplifying perspective on the mind, for Erica, it represented an expansion of her standard repertoire of interpretative categories. Erica explained how she and her managerial colleagues, prior to the workshops, would identify resisting employees as; ‘lacking change-readiness’ and would explain their behavior with a standard interpretation of them ‘not wanting to do their job’. For Erica the figure of the three levels of resistance represented an aid for her to ‘go a level deeper’

> ‘You get these tools to, ehm, to go in and say, ’yes but, what is it? Ehm, fear? is it negativity? Or where are they on this journey? (Interview with Erica)

Erica juxtaposed using the figures with having ‘a hunch’. Coming from having a hunch, into having a more focused perspective on resistance became associated with a felt increase of clarity and certainty for Erica. In general, the managers accepted the figures as functional representations. Most managers expressed that they found the figures useful for analyzing the situation around them. They highlighted that they now felt capable of ‘categorizing’ employees, ‘putting them in boxes’ and expressed intentions to go out and ‘spot resistance’. Apparent appreciation and eureka moments seemed to mark the act of re-encountering the world from a new perspective.

> ’I think some aha-moments came out of it. For example, my technician,

where is she actually at? Oh here she is! And how do I get her moved?' (interview with Clara, 1st level manager)

The arrangement of play involved the establishment of an outside, inside the geographical center of the company. A secession providing a sense of a view from above, mediated by tokens, boards, cards, which materialized an idiosyncratic, yet relatable, business language, setting the stage for eight hours of rule-bounded interaction. The technique appears quite effective in engaging the participants in the virtual reality. Though Erica at first appeared skeptical, she quickly accepted the ludic premise. She even took a liking to the game figures, thinking of them as tools for re-assessing her employees. The perspective from outside, provided by the game, seemed to give Erica the experience of being able to observe the world, not only from above, but also from the inside. Erica's articulation of being able to 'go a level deeper' and quotes from others who express they will go out and 'spot resistance' indicate how the technique, at an early point, provided the managers with a sense of having obtained elevated managerial competence. As if the elevated position in the workshop gave Erica the impression she had become able to see a more real version of her employees, than what she had been able to see so far when engaging with them in mundane interaction.

Locating personal summits

Games are often made with 'win conditions', with the inclusion of a goal that must be reached to conquer the game (Salen, Tekinbaş & Zimmerman, 2004). Conquering Wallbreakers would mean driving the bus through the change in fourth gear with all employees onboard. However, completing the game with a perfect score is highly improbable. Instead, simply reaching the end of the game with a better accumulated score than the other groups, would eventually be performed as the significant indicator on players' performance. One may regard the game's win condition the obvious summit of the activity. Yet, playing the game is not the main objective of the workshop, the point is rather to make the learning subjects discuss their concerns in relation to change management. The real summits appear to be personal summits.

The first exercise the consultants gave the participants, before the Wallbreakers game had been introduced, was to come up with problems relating to change management. A local Lean partner was invited to take the floor. In a prepared plenary speech she associated the Lean transformation with the topic of changing minds and sentiments, the core of the change management task, as they would come to learn. She asked if anyone was willing to share an experience with doing good change management, which resulted in a handful of raised hands. One of the game consultants followed up on this discussion.

(Consultant):	It's fantastic. I can hear you already have a lot of solutions.
(Alfred, 2nd level manager):	Then we just need some problems!
(Participants at other tables):	[Laugh loudly]
(Consultant):	Well-put! "We just need some problems". And I actually think you have some.

The consultant stressed that in relation to finding a problem to talk about, the participants could think of:

(Consultant):	[...] anything. It can be a concrete situation, or "I generally think that when I communicate I tend to get misunderstood" or, it can be anything'.

The consultant instructed the participants to gather in groups of four and place their chairs in a formation illustrated on a PowerPoint slide. In the exercise, one person interviews another person about a problem of choice. Meanwhile two observers listen in. After the interview, the interviewee turns his/her chair 180 degrees, hereby looking away from the group. Then the two observers and the interviewer discuss the problem they have heard and reflect on ways of going about it. Finally, the interviewee is allowed to turn around and articulate his or her reflections based on the discussion the others have had. Technically constrained, but thematically unconstrained, the conversation technique the participants to begin associating problems of change management with more intimate problems. Erica used the exercise to reflect on problems she had with an employee. Erica believed the employee was 'underperforming' - 'hiding' instead of working, and remaining passive in relation to Lean. Erica was uncertain about how to deal with the situation, regretting her own lack of initiative to address the problem, acknowledging her behavior as an expression of some kind of fear on her part. This was the employee Erica would come to swap. The workshop had become a space for introspection and investigations of problematics somewhat tangential to the learning curriculum. The discussion points appeared to move beyond the theme of change management, and became more existential for her. In an interview Erica told that 'honesty' was the most important tool that she had encountered over the course of the workshop, praising how she had learned that she needed to face her problems and take action. Erica seemed to be activating herself, as a self-reflective and self-lecturing subject, who, at an early point in the workshop, had begun to strive towards new goals. While this transition was occurring for Erica, in another corner of the room, her superior, Bruce, was also realizing he had problems. Below is a description of his reaction to the introduction to the figure of three phases of change.

(Consultant):	The game consists of three phases, which we will go through […] the start-up phase, an implementation phase, and a phase, which is often forgotten in corporate practice, the one called anchoring. When we have implemented we are often so busy implementing the next new thing, and we don't always get [the first change] completely anchored […]
(Bruce):	[Laughs discretely looking at Alfred, sitting across the table.]
(Alfred, 2nd level manager):	[Replies with at laughing smile.]
(Bruce)	We don't recognize that [Sarcastic whisper to Marie sitting next to him]
(Marie, 1st level manager):	[Smiles]

As the laughs, gazes and comments indicate, the figure and the narrative resonated with Bruce to a degree that he felt compelled to share the recognition with others around him, as if the consultant had just expressed a common secret of theirs. From the interviews, we learned that Bruce was reassessing his stake in the Lean transformation over the course of the workshops. His perspective on the Lean transformation had been addressed in ways that not only bring about laughs. It also provoked an uneasiness with the situation, which showed itself in his articulations, that he was doing something wrong. Our video captured a glimpse of Bruce's growing concern at the workshop, when he reached out to the Lean consultant who was passing by, inquiring why change management had not been a topic in regards to Lean thus far.

> When you do roll-out like this […] you really must force us to do something like [this game]. You know, force us to think, it's not just a [performance] board […] there are all these things in between. […]

> It's funny that we in [this company] haven't had the thought "hey this is actually a change that's going on out there". (interview with Bruce)

That there was more 'going on out there' in relation to Lean than introducing performance boards becomes articulated as an epiphany. It seems to be intended as an indication to the Lean partner, that if someone was to look for a scapegoat for a failed Lean transformation, they ought to turn to the Lean personnel for neglecting their responsibility in terms of communicating to the senior managers that, Lean transformation also entails managing the human side of change. The workshop had also become an liminal space for re-articulating business problems, and redefining roles and responsibilities of those involved in an informal manner.

In interviews, Bruce noted that the workshop made him think in new ways about his managerial task. Now, it seemed, he began to think of his otherwise mundane work, as having a higher goal, as he related it to the abstractions of change management, he had been offered in the workshop. Incorporating the figures from the simulation into his narrative on his managerial tasks.

> '[…] that may be the biggest learning I got from this […] sometimes we don't get it, because, from the managerial side, we do not see it as a change.' […] When we played the case in the game it was obvious that it was a change, but I think sometimes, we have some stuff that we actually don't see as a big change, but our employees experience it as a big change'
>
> (interview with Bruce)

The two managers were identifying each their individual set of problems. For Erica, themes of honesty and her ability to act despite fear, had come up as a leadership issue, and for Bruce, the orchestration of the Lean transformation in its entirety had become a vital problem begging attention and articulation. In a metaphorical sense, Erica was arranging an elevation within, associated with personally held virtues on good management; particularly the question of being able to act despite fear. Bruce related his emerging elevation both to the game's suggestions, that problems with 'resistance' could be nested in the change's 'phases', but also a more general frustration that he had been mandated to lead a Lean transformation without feeling adequately prepared for the implications of it. Are we to talk of summits and elevation, in relation to the unfolding training, we must acknowledge the presence of multiple individually constructed summits undergoing development and shifts as the training progresses. Locating, explicating and acknowledging the mountain is as much of a challenge as it is to elevate the self-developing subject towards its summit.

Collective search for summits

As already noted, Erica and Bruce articulated to us, how they had begun observing things differently, and throughout the workshop, different occasions of self-problematization became noticeable. First level manager Dora for instance noted in an interview that she appreciated getting the chance to reflect on change management, and that she had realized that change management challenges were everywhere. However, she regretted the training program had not taught here 'how to actually use [the tool]'. In a sense, she had been left with a problem, but not a solution. As the second workshop was approaching the end, the consultant instructed the players to talk about the things they would do differently, and share a piece of advice with the other groups. John, a manager at the level of Erica from a different department, explained he was tired of defending the KPI's, he had formulated. His subordinates remained resistant towards them. During the workshop he had decided he would go back and involve the employees, making them formulate new KPI's themselves. John's remark prompted a wider discussion on how to get value from Lean. Paul, a planner from John's staff, noted that the mandatory 'People KPI', signaling job satisfaction was 'too fluffy to deliver value'. Erica countered stating she was able to create 'a space in which people dare to open up'; implying that she thought the KPI could deliver value when used adequately by the manager. To this, Paul inferred that, though they used the 'People KPI' on a daily basis, and it ought to give some indication of the employee's attitude towards Lean, the employees did not use the KPI to utter critique against Lean.

Paul: '[…]still we have some who are in the different categories [of resistance] in relation to Lean […] that's just a fact'.

Erica agreed and elaborated

Erica: They still cannot see what Lean gives them

John built on Erica's point by adding a story about how he sometimes also felt, that his own KPI's were arbitrary and did not deliver much value. To this remark, Erica inferred that the problem might not only reside in the others, but that it could also reside in themselves.

John: We don't even agree who is on the bus and who isn't

Drew:	[subtle laughs]
Erica:	No no, that's the thing.
Paul:	Your own position probably also influences where you see the others
John:	Yes, and I'm maybe a bit more like - soft
Paul:	You are more Laissez faire or?
John:	Yes because I feel . They aren't there yet -
Paul:	- but they'll get there
John:	Yes, because, they want to, they just don't know how.
Paul:	No
Erica:	Are we on the bus?
John:	No, because, we are against the way it's done
Consultant:	One minute left to choose some advices or actions! [shouting to everyone in the room]
Erica:	I think that we managers are probably on the bus. But [the employees] can tell that I'm also thinking, [Jesus Christ], these are some stupid KPI's even though I try to talk them up.
Paul:	But that's the thing again. Do they see that you believe it?
Erica:	They CAN see that I don't believe it
Drew:	[subtle laugh]
Paul:	And it's plain to see, because you can feel it in a manager right away. "That guy doesn't believe it at all."
John:	You almost get a bad stomach of it, right?
Erica:	Yes
John:	Because you are really standing there thinking, "I have to appear trustworthy and I really have to show, that this is what we're pursuing".

In this excerpt we see how the participants unfold and construct their own attitude on Lean and the change process. In this, they draw upon the game metaphors as conversational mediators. Notably, categories of resistance and the bus. When Erica asks the question; 'Are we on the bus?' John affirms an ambivalence towards the Lean setup, elaborating on his bowel related bodily sensations, indicating the severity of the issue in his daily work.

In the following, Erica constructs a sentence, in which she first articulates, that she and the other managers are on the bus. Presumably, she refers to managers as compliant by default. Yet, in the same sentence she also articulates, that the KPI setup is also causing her problems. This develops into a negative spiral of reciprocity between her and her employees, in which employees increasingly lose faith as they witness their manager's lack of authentic engagement. We do not have data to comment on the actual occurrences during the performance board meetings discussed here. Yet, what is important to note is how the workshop seems to afford the participants to problematize and rearticulate themselves and their situation in continuation of the simulation they have been exposed to. The game figures provide a shared plateau of reference, which enables the participants to conclude that their different and personally held problems are similar; different examples of resistance. This eventually leads Erica and her colleagues, to the novel and previously tabooed narrative that they themselves also belong to the category of resistance.

Stabilizing a new collective summit

The following example is related to the excerpt described above, as it, in a sense, is a continuation of the discussion though it unfolds months later at the follow-up workshop. In this workshop the consultant revisited the games they had played, and used this to make the learning subjects reflect on their situation. The consultants instructed the learning subjects to think about what they had learned over the course of the workshops and what they would like to do as a consequence of this. At the end of the workshop the consultants facilitated a round of plenary reflection. Taking turn, each participant was asked to tell the others, what they planned to do after the workshop. In this exercise both Bruce and Erica co-articulated a new story about the Lean implementation and how they saw their own role in it. In this, the managers elevated the standards for their Lean implementation, concluding that more needed to be done. Erica started and Bruce followed up.

(Erica):	'Why do I have resistance?. […] now of course my boss is here and hears this
(Bruce):	'He's gone' [Erica's immediate superior had left the workshop early]
(Erica):	'Yes, in a way, it's one even higher [Referring to Bruce], it's probably even worse
Other players:	'[Laugh]'
(Bruce):	'I'll also disclose myself soon'

(Erica): ‘I have to believe in this myself. If this is to work, I have to believe in it myself, and I don’t believe in it.’

Erica explained how she did not see the performance board meetings, and the KPI’s, as currently contributing to anything of value in her team. This was the first time Erica had directly expressed resistance towards the Lean transformation to a superior, she told us in an interview. Normally she would defend management decisions downwards and upwards in the organizational hierarchy, uttering critique mostly to her peers, as she was aware that critique could lead to reprisals. Bruce’s reply however surprised Erica positively and left a substantial impact on her.

(Bruce): ‘I’m actually a bit in the same boat as you, Erica. I actually think that I know where we are going […] but it’s unclear how I fit into it, and how my management group, what’s our role in this? That’s unclear. So to be honest, I think we have kick-started something, in [this area], where we, maybe myself included, in the management group, do not contribute that much to the party. So I’m reflecting a bit on, we probably have to try, for the first time, to take a reverse gear, go back a little and think “Okay, Lean, what does it mean in [this area]?”’

Bruce further described how he saw the problem as having to do with a negligence of orchestrating a sufficiently functional ‘start-up phase’. Along with the metaphor of taking a reverse gear, Bruce was refiguring their problem through the use of game figures as shared coordinates. Following the line of critique from Erica, Bruce was articulating a shift in his mode of thinking about the change. He expressed beginning to see the main concern for the Lean transformation as not so much a pressure of resistance coming from the employees, but rather the management group’s lacking understanding of the Lean transformation. This way, Bruce articulated the existence of a goal beyond what they had previously acknowledged, and that their current plateau of competence was not sufficient. They had to aim higher. The discussion continued for the remainder of the workshop, mainly led by Bruce, with different lines of frustrations and ideas articulated. Meanwhile the consultant remained silent and refrained from introducing a final exercise, which he had planned. Bruce finally announced that he, together with the Lean consultant would figure out how to take a different approach to the Lean transformation. Through this discussion, the two managers’ hitherto personal sense of unease had become entangled, and become a shared problem tied to elevation towards higher organizational goals. The summits, the attractors of their collective strivings, were changing.

We asked Erica about her thoughts on what happened during the exercise. She stressed that talking openly and critically about corporate initiatives was rare in the company, both on her part and on others. She highlighted this to be the most important aspect of attending the workshop, and that she had left the workshop with a sense that things from that point on would get better.

(Erica):	'When a workshop like this ends with the [highest ranking manager] showing vulnerability […] reflecting that we haven't done things the right way, then we've really gotten something out of this. It's not often that we experience [the highest ranking managers] unconditionally acknowledges his own shortcomings.
(Interviewer):	That's some of the stuff that really counts or moves you?
(Erica):	Yes, I think it moved a lot. One thing is that us lower ranking managers show a little vulnerability, and I dare to express my own opinion and my own feelings, it's not always well received. But he did so too […] that's probably the biggest effect of these things.
	(Interview with Erica)

In the words of Erica, in the quote above, the most essential outcome was the managers' collective re-articulation of the essence of the problem they were faced with. In regards to this, Erica highlights the sense of being emotionally connected with her superior, in regards to the theme of Lean implementation. Erica's gradual re-articulation of the real problem, becomes even more real by that the fact that it is also expressed by her superior. Yet, though the re-articulation is presented with a sense of relief, we also note that the content of the realization connotes emotions of uncertainty, anxiety even, as the group is now faced with an opaque horizon of choice. If what they had done so far on the Lean transformation turned out to be misguided, then what? The managers' remain unclear. Elevation, obtaining profound insights by rising above the habitual plane of existence, can produce a sense of 'vertigo' Sloterdijk (2009-2013: 149–152) notes, and coming safely back down to earth can be as much of a challenge as ascending the mountain. In this example, we sense an inkling of vertigo, associated with the realization of failure, and that the real summit cannot be reached through the trajectory they have mapped out so far.

Discussion

How is open-ended and structure balanced in a transformative leadership education program? and what form of change does this balancing enable? First, the analysis shows that, the establishment of a liminal space with a serious game involves the introduction of organizational simulacra, used to mediate the managers' communication in the liminal performance. Coupling these simulacra with game mechanics, narrative, aesthetics and reflexivity techniques provides a relaxed de-coupling from normalcy, which feeds theory in a way that makes it appear simultaneously playful and sacred (in the sense of rendering the selected theory a natural given higher truth within the confinements of the simulation). This arrangement enables the managers to feel elevated by the virtue of seeing the organization and themselves in a new way; leading some to express seeing things more clearly. The liminal game arrangement however also makes managers look towards their own faults, in the light of the game's simulacra. This takes place in the reflection exercises, employing something akin to light versions of techniques of the t-group exercises, which expands the breadth of reflexivity potentials to reach beyond the confinements of the game's definition and prescript themes. The elevation offered here is one of liberating the managers' reflections encouraging them to reflect beyond their normal scope, and eventually to figure new summits to strive to. Further, through coupling of game- and reflexivity exercises the educative format makes the managers indulge in collective search for summits in which new articulations of organizational problems may emerge. Eventually, new settlements on problem definitions appear towards the end of the liminal exercise, which brings about a new heightened aim for the organization to strive for. Though this new aim may yield immediate recognition by the managers during liminal exercise, the liminal nature of the act may generate new subsequent problems as the problem definition will possess traits of the illusive and imaginary conditions in which it was conceived. That is, more abstract and high reaching than constrained by practical details of organizational reality.

Initially in the paper, several lines of critique against liminal training exercises were mentioned. These include, on the one hand, a group of scholars skeptical of whether formal training in liminal spaces leads to practically relevant improvements (Mintzberg 2004, Fernández-Aráoz *et al.* 2017, Larsson *et al.* 2019), and on the other hand scholars problematizing how liminal gamified ludic arrangement can lead to too extensive and mechanistic appropriation of the intended curriculum (Linderoth 2012, Suchman 2016). Neither of these lines of critique seem to fit our case study of Wallbreakers, as the managers neither took the game literally or casually, but still enacted it as a developing activity. Wallbreakers both presents the participants with sessions of highly controlled gameplay and sessions of free reflection, in a liminal space with acceptance towards critical and self-critical utterances. This oscillation between reflection and simulation in the liminal space appeared to influence the participating managers in subtle ways. They mirrored themselves in the simulation and used these comparisons between Wallbreakers and their daily managerial lives to arrive at individualized points of improvement they desired to achieve. Wallbreakers, in Sloterdijk's (2009-2013) terminology, demonstrates a potential to establish summits to strive for and at the same time develop momentum, to develop as a manager, and elevate towards these summits.

Another potential implied concern is related to the consultants' task of balancing the risks of either the Wallbreakers sessions getting out of hand and off topic, or the managers' reading the game too literally. In this regard it is striking how little the game facilitating consultants do to curb critical utterances and control discussions. For instance, the consultants could easily have taken a defensive stand on behalf of the Lean transformation, however the moderation of the managers' reflexivity appears to be established through the liminal exercise itself. It is the managers' own dialogue that guides, expands and limits their conclusions. The analysis shows that some form of conventional social control remains active in the exercise, however the enforcement of this control is challenged by the exercise which enables new, more critical, utterances to appear. These critical utterances again seem to lead to establishment of new higher summits and aspirations to reach them.

A characteristic potential of ascetic exercise is the 'radical change', or 'metanoia', which can occur when 'turning your gaze on yourself' (Foucault 2005, pp. 211–217). The insisting self-questioning techniques present a good example of how a tireless pursuit of such moments can become subjected to self-disciplining techniques (Hadot 1995) and the t-groups similarly show how such techniques can foster collective action in a liminal space (Highhouse 2002, Vikkelsø 2012). With the invention of the game-based means of self-reflection, with its imports of ludic mechanics the transformative act becomes subjected to a certain frame. A channeling is arranged of both the emotions of the event but also the content of reflective content. Akin to the dramaturgy of filmmaking or classical theater, the game designer sets a path for the managers to tread, bringing about somewhat scripted eureka moments, within the bounds of the game's normative suggestions. There is substantial space for different choices in the simulation but not anything goes. This ludic styled and highly controlled 'provocative containment' (Lezaun *et al.* 2013) of the transformational Wallbreakers event certainly warrants the suspicions, that managers are steered towards replicating a curriculum, and a particular normative way of behaving (Suchman 2016). Yet, as the analysis shows, more is at play as it appears that the event is both used for genuine self-reflections, as well as for enacting the managerial self differently, embodying managerial 'exemplums' (Halsall 2016). An enactment, which is not used to test - and reflect the self in the simulation, it is also an enactment in which the other participants perform the audience. Think for instance of Erica's act of speaking the truth about the Lean failures as an enactment of a 'holy-fool' testing the limits of what is allowed to be uttered, or Bruce's' enactment of the martyr, when eventually taking upon himself the guilt of a failed Lean transformation in public display.

This latter observations opens an interesting theoretical link between Sloterdijk's (2009-2013) concept of elevation and Turner's (1966) writings, relevant for the current discussion. Turner referred to elevation when speaking of 'status elevation', the formal ascent of social hierarchies, which a rite de passage could catalyst. Here, Turner notes the tendency of tribal rituals to orchestrate a humbling experience for the ascending subject. The inoculation of a new king included seemingly perverse and humiliating performances, which, Turner theorized, could be measures designed to keep the elevating king humble in his new position as superior. Coupling a notion of a humbling experience to an elevation technique like

Wallbreakers opens another dimension to the educative exercise. Game mechanics designed as setups to failures can be used to design a form of elevation that may both boost a sense of competence while simultaneously ensuring that the elevating manager remains humble to the project role they are encouraged to perform.

Concluding remarks

The success of Wallbreakers and other similar educative techniques relying on the arrangement of liminality may speak to a condition of the contemporary business under a mental regime of acceleration (Rosa 2013). Fast, predictable and experientially effective. Transformative, but not too much. As such, the exercising of Wallbreakers is a far cry from classical anthropotechniques like of stoic meditations and monastic practice that demanded heavy work and were immensely time consuming. Yet, considering Wallbreakers a variation of the anthropotechniques, we are provided a lens for examining the game's techniques and effects. In this, we come to recognize the arrangement of elevating secession as a key premise for the exercise, and worth further examination. With Wallbreakers, we see how a business game makes its models more real by deploying techniques that makes these theoretical models attach more easily to human experience. When the arrangement takes concerted effect, and the learning subjects play along, novel problems emerge. The more the models and other simulacra attach to learning subjects' experience and problem articulations, the more real the simulacra become. Eventually, the game offers new liminal ladders between the 'sacred' and the 'profane' world of business (Czarniawska and Mazza 2003, Sloterdijk 2009–2013).

References

Avolio, B.J., Reichard, R.J., Hannah, S.T., Walumbwa, F.O., and Chan, A., 2009. A meta-analytic review of leadership impact research: Experimental and quasi-experimental studies. The Leadership Quarterly, 20 (5), 764–784.

Bass, B.M., 1999. Two decades of research and development in transformational leadership. European journal of work and organizational psychology, 8 (1), 9–32.

Blumberg, F.C., Almonte, D.E., Anthony, J.S., and Hashimoto, N., 2013. Serious games: What are they? What do they do? Why should we play them. In: K.E. Dill, ed. The Oxford handbook of media psychology. Oxford: Oxford Library of Psychology, 334–351.

Bolden, R., 2016. Leadership, management and organisational development. In: Gower handbook of leadership and management development. Routledge, 143–158.

Czarniawska, B. and Mazza, C., 2003. Consulting as a Liminal Space. Human Relations, 56, 267–290.

DeRue, D.S. and Myers, C.G., 2013. Leadership Development: A Review and Agenda for Future Research. In: D.V. Day, ed. The Oxford Handbook of Leadership and Organizations. New York, NY: Oxford University Press, 832–855.

Fernández-Aráoz, C., Roscoe, A., and Aramaki, K., 2017. Turning Potential into Success: The Missing Link in Leadership Development. Harvard Business Review.

Foucault, M., 2005. The Hermeneutics of the Subject: Lectures at the Collège de France, 1981–1982, trans. New York, NY: Palgrave Macmillan.

Halsall, R., 2016. The role of CEO (auto-) biographies in the dissemination of neo-ascetic leadership styles. Leadership, 12 (5), 515–537.

Higgs, M. and Rowland, D., 2000. Building change leadership capability: 'The quest for change competence'. Journal of Change Management, 1 (2), 116–130.

Highhouse, S., 2002. A history of the T-group and its early applications in management development. Group Dynamics: Theory, Research, and Practice, 6 (4), 277–290.

Howard-Grenville, J., Golden-Biddle, K., Irwin, J., and Mao, J., 2011. Liminality as Cultural Process for Cultural Change. Organization Science, 22 (2), 522–539.

Larsson, M., Holmberg, R., and Kempster, S., 2019. 'It's the organization that is wrong': Exploring disengagement from organizations through leadership development. Leadership, 174271501987930.

Lewin, K., 1951. Field theory in social science: selected theoretical papers. New York, NY: Harper & Brothers.

Lezaun, J. and Muniesa, F., 2017. Twilight in the leadership playground: subrealism and the training of the business self. Journal of Cultural Economy, 10 (3), 265–279.

Lezaun, J., Muniesa, F., and Vikkelsø, S., 2013. Provocative containment and the drift of social-scientific realism. Journal of Cultural Economy, 6 (3), 278–293.

Linderoth, J., 2012. Why gamers don't learn more: An ecological approach to games as learning environments. Journal of Gaming & Virtual Worlds, 4 (1), 45–62.

McGregor, D., 1960. The human side of enterprise. New York, NY: McGraw-Hill.

Mintzberg, H., 2004. Managers, not MBAs: A hard look at the soft practice of managing and management development. Oakland, CA: Berrett-Koehler Publishers.

Pias, C., 2017. Computer Game Worlds. Zürich: Diaphanes.

Rosa, H., 2013. Social acceleration: A new theory of modernity. New York, NY: Columbia University Press.

Sloterdijk, P., 2009–2013. You Must Change Your Life. 1 edition. Cambridge: Polity.

Stephenson, B., 2020. The Limits of Liminality: A Critique of Transformationism. Liminalities: A Journal of Performance Studies, 16 (4), 1–23.

Suchman, L., 2016. Configuring the Other: Sensing War through Immersive Simulation. Catalyst: Feminism, Theory, Technoscience, 2 (1), 1–36.

Thomas, A.B., 1988. Does Leadership Make a Difference to Organizational Performance? Administrative Science Quarterly, 33 (3), 388–400.

Turner, V., 1969. The Ritual Process: Structure and Anti-structure. Ithaca, NY: Cornell University Press.

Turner, V., 1982. From ritual to theatre: The human seriousness of play. New York: PAJ Publications.

Van Gennep, A., 1960. The rites of passage. Chicago, IL: University of Chicago Press.

Vikkelsø, S., 2012. The fragility of a robust therapeutic technique: The case of Bion's experience group. Theory and Psychology, 213–233.

Zimmerman, E., 2015. Manifesto for a ludic century. In: S.P. Walz and S. Deterding, eds. The gameful world: Approaches, issues, applications. Cambridge, MA: The MIT Press, 19–22.

Article 3

‘The way the Lean aspect delivers is primarily in time. […] The most important aspect of a lot of what we do is really focused on time, and getting things done extremely quick. We will frequently sacrifice quality, believe it or not, for getting something done quickly. Not quality to the end customer, but perhaps quality of decision. We won’t spend a lot of time looking at data. We often use the simple pareto principle concept of, you know what, we see enough of a pattern here. We can wait longer to see how this develops, but when we have a good hunch of where this is going, let’s just go and get this thing done.’

(John Krafcik (2013), Coiner of the term Lean production system (1988), speaking at MIT as CEO of Hyundai)

The epistemic uncertainty of change management tools – Overcoming resistance through framing work

Author: Esben Langager Olsen[a]

Abstract

Many change management tools function by providing visualizations and metaphors of organizational change, thereby helping actors get a sense of abstract or intangible change related aspects. However, this "change simulacrum" can also be resisted by participants and thus pose a challenge for the change manager. Based on an ethnographic study of Lean-based change management tools in use, this paper examines how change managers overcome such resistance to the tool's simulacrum. Taking inspiration from Goffman's notion of framing, the study shows that change managers adopt different framing strategies to manage the "epistemic uncertainty" that the tool's change simulacra sometimes provoke. This "framing work" help change managers deal with such uncertainties, allowing them to overcome resistance, without necessarily resolving underlying philosophical, epistemological or practical disputes.

MAD Statement

Organizational actors risk falling into paralyzing debates when applying change management tools, which can be seen as a certain form of resistance to the tool. This article analyzes how change managers seek to overcome such resistance through "framing work". The article suggests that framing work is a key element in making change management tools function and provides detailed descriptions of how it is performed in practice. The article also discusses the wider implications of this work for the understanding the management of organizational change processes.

Keywords:

Change management tools, Resistance Epistemic uncertainty, Simulacrum, Framing work

Introduction

'This is not an exact science; just give us your best guess.'

Lean facilitator using a cause-and-effect-diagram during an improvement event

Change management tools and techniques appear in a wealth of forms, and include everything from visualizing models, elaborate frameworks over concepts and heuristics (Hughes 2007). To a large extent change management tools function by providing actors with simulacra of the organization; functional vehicles through which actors can make sense of the organization with aid of metaphors and visualizations (Muniesa 2014). A vital part of managing change and being a change manager is to put these tools and techniques to use and make the tools perform their part in the larger scheme of the organizational change. However, an ongoing challenge for change managers is dealing with the resistance the tools tend to provoke. Lean-based change management tools are often highlighted as prone to meet such resistance. For instance, due to the negative narratives on Lean tools (Hansen and Clausen 2017); the mismatch between the Lean tools, other tools, and the actual work (Langstrand and Elg 2012); and line managers' inability to motivate the Lean implementation and make it meaningful (Holmemo and Ingvaldsen 2016). A more insidious form of resistance may rise from the complicating discussions elicited by the tool, which may hinder the tools' effectuating potentials to unfold (Hauge 2016).

Visualizing tools, such as those found in Lean, work from the premise of establishing a common ground for discussing organizational aspects; work routines, problems, cause-and-effect relationships, etc. These simulacra of the organization, can simultaneously be seen as false reality representations and functional vehicles for realizing change (Muniesa 2014). Simulacra, or reality appearances, makes it possible for human actors to experience reality as more stable, repetitive and predictable than it actually is (Deleuze 1968–1994), which allows for both unsettling and productive potentials in a business settings as it opens the floor for disputes on both adequate tool use and the current state of reality (Hertz 2000). This caveat seems particularly relevant to consider when studying resistance to the visualizing tools and metaphors of change management.

This paper addresses how change managers overcome resistance to change management tools. With inspiration from Goffman (1974), it examines the framing work of change managers that makes tools function when met with resistance relating to epistemic uncertainty. The theory of frame and framing continues to be proven relevant for the study of change management (Bryant and Stensaker 2011, Klaussner 2012, Mastio *et al.* 2021), but has not yet been employed to understanding of resistance to tools. Analyzing data from an ethnographic study of Lean-based change management tools, the paper identifies four framing strategies to overcome resistance to tools: referring to the manuscript; relaxing the frame; insisting on a guiding metaphor and sidestepping a concern. The article discusses how framing work aids in tying tools' change simulacra to organizational operations.

Tool resistance in the case of Lean

Lean Management and the related Total Quality Management is an integrated change management tool framework directed towards performance improvement and cultural change (Hughes 2007). Lean exemplifies how visualizing tools and metaphors can become conducive for organizational change.

The term Lean was coined to characterize companies that become competitive by delivering customer value through a minimum "waste" of time and resources (Krafcik 1988), and enabling managers to distinguish between waste and value-adding activity is a key concern behind visualizing Lean tools (Rother and Shook 2003). Besides the metaphor of waste, "flow" is another central metaphor at work in Lean tools (Womack and Jones 2003), referring to the flow of value adding activities. Flow, is typically visualized by the value-stream-map, a horizontal process chart that references and expresses the process steps a product passes through in its making. Seen as a method for organizational visualization, the value-stream-map challenges the conventional vertical organizational chart (Vikkelsø 2016) by emphasizing product flow rather than lines of command as the essential property of the organization. Finally, the metaphor of "root cause" is central to Lean, referring to the undergirding problems that cause production deviations and reoccurring waste. The metaphor of root cause suggests a distinction between the symptom and the real problem, which can be visualized through a tool like the A3 (Shook 2008). The root cause metaphor resonates with Lean's roots in statistical methods and pragmatism (Lorino 2018), which also contribute to the narrative of Lean as a method of applied scientific practice (Rother 2009).

Through visualization tools and suggestive metaphors, Lean provides simulacra of the organization and its potentials for change, which serves to 'provoke' (Muniesa 2014) organizational actors to articulate and realize change. However, getting organizational actors to play along with the Lean playbook is not always an easy task and there are many accounts of resistance to Lean (De Cock 1998, Langstrand and Elg 2012, Hansen and Clausen 2017). In classic texts, resistance is conceptualized as the forces of a social system, which pushes towards preserving 'status-quo' (Lewin 1951, p. 172). For example, the introduction of a new tool or work routine may cause resistance stemming from the frustration of having to learn new work methods and experiencing performance deterioration during the learning period (Coch and French 1948). Newer studies of resistance to Lean elaborate shed light on other specificities though. For instance resistance to Lean is often linked to a mismatch between the Lean tools and the local work practices (Andersen and Røvik 2015) and misalignment with other dominating tools and structures (Langstrand and Elg 2012). Often, Lean resistance is also connected to uncertainty provoking narratives (DiFonzo and Bordia 1998), for instance that Lean implementation leads to cost cutting and layoffs (Hansen and Clausen 2017) and that it fundamentally is a manifestation of managerial hypocrisy (De Cock 1998). Such narratives may breed opposition or cynicism, which may be buffered by line managers' ability to steer sentiments and narratives (Holmemo and Ingvaldsen 2016, van Dun *et al.* 2017).

A final form of Lean resistance relates to the way the Lean tools and metaphors invite discussions on core organizational concerns. This can lead to struggles between actors of defining how the Lean tools should operate and how to interpret the signals the tools convey (Hauge 2016, 2018). Lean tools can present a 'battle scene' for organizational actors to problematize foundational organizational topics, such as the definition of value (Hauge 2018, p. 252). This latter form of resistance illustrates how the tools' simulacra may not always settle disputes but also present occasions for unsettling settled ideas and facts. Thus, a key task for the change manager is to manage disputes among actors and their resistance to the tools and their simulacra.

Framing as a means of managing change management tools

Goffman's (1974) frame analysis offers a way of thinking about the dynamics between change management tools and their facilitating change managers. A frame refers to the definition of the situation, or the background of meaning, which actors use to answer the question 'What is it that's going on here?' (Goffman 1974, p. 8). Frames help actors organize experience and enable collective interpretation of a situation (Goffman, 1974, p. 13). A frame is established through a multitude of factors. For instance, in organizational settings the formally defined relationship between manager and subordinate helps establish a common frame for interaction (Klaussner

2012). Frames also tie in with the narratives evolving in the organization, as when a change project develops from yielding one frame of significance to another across time (Hernes *et al.* 2015). Moreover, frames are tied to the local social and material setting. The frame of queuing, for instance, tends to emerge spontaneously regardless of fluctuations in narratives.

Frames produce effects, and therefore, manipulating frames can be a way of generating a desired outcome. For instance, framing something as inside the frame of relevance, is a way of rendering matters that are beyond the frame irrelevant (Callon 1998). Framing can also be used to manipulate interpersonal relationships, as when attempting to establish trust (Klaussner 2012). Lastly, a frame can be used tactically to arrange 'an act apart' (Huizinga 1949, p. 10) a playful moment, in which regular rules are bracketed, and abnormal ways of thinking and acting are allowed, which potentialize more free and innovative tool engagement (March 1971).

Actors constantly evaluate which frame currently govern the situation. In interpreting cues and enacting frames, actors signal the frame in play to each other. Accordingly, all participating actors must perform a given frame for it to sustain, also for this reason; frames are dynamic and unstable in nature, always prone to manipulation and change. Goffman referred to actions that alternate a frame as upkeying and downkeying events (Goffman 1974, pp. 359–368). An upkeying event transforms a situation of random action into a situation about something, and introduces a shift away from 'literal reality' (Goffman 1974, p. 366). For instance, by telling another not to cut the line, the situation is upkeyed to the frame of queuing. In business settings, actors upkey situations to elevate everyday action, turning the significance of mundane action into something that is more than meets the eye. For instance, a shop floor manager might try to make daily Lean board meetings more meaningful by providing narratives about the meetings' links to the broader Lean system. This marks a symbolic elevation of the act, which turns the literal action into a significant business ritual, tying its significance to a broader network of organizational structures and cultural norms. Downkeying conversely refers to an action that breaks the symbolic meaning of the act, pulling the situation down to its literal components. For instance, an employee's satirical remark on a bloated Lean narrative may deflate the symbolic meaning of a Lean activity, making it appear a faux pretend play.

Data collection and analytical approach

Over a period of three years, I conducted ethnographic observations of Lean implementation in a Danish biotech company. The company granted me access through a research program aimed at managing resistance. Though the collected data is broad-based, the current analysis engages strictly with one specific change management tool, the so-called - rapid improvement event (RIE). The RIE presented an opportunity for me to study tool resistance within the contained space of a standardized workshop format.

During my research, I observed three full-week RIE's. After having observed the first two workshops, I noted how friction tended to emerge when the Lean tools were introduced on the first day. Assuming that these observations depicted a general pattern, I decided to conduct a third observation, this time bringing an audio recorder to capture more qualitative richness.

To reduce the risk of unduly influencing the team's performance during my observations, I made it clear that I was investigating the RIE as a change management technology, and that I was not there to assess their performance in a conventional sense. To the possible extent, I spoke only when spoken to. All persons appearing in the extracts carry pseudonyms. I translated all quotes from Danish myself, and left quotes in English in their original wording. All participants have given consent to appear in research publications under anonymity.

To gain an overview of the core tensions, I commenced the analytical process by reading through my notes and listening to the parts of the recordings corresponding to my highlighted events in notes. From this process, I found four episodes, which fitted the criteria of having an observable point of resistance, which obstructed the workshop process. Further, the episodes had to have a point of relief, in which the resistance faded and the workshop process could proceed. This selection criterion was made with the intention of obtaining episodes that were analysable as time bound units of interaction. I treat each episode as an independent unit of analysis. The interaction in the episodes is presented as narrative accounts containing extracts of transcribed dialogue.

I found inspiration for the current study from investigations on the interplay between facilitating Lean tools and users (Hauge 2018). Such studies exemplify ways of examining interaction between tools and their users, through careful attention to turn-by-turn shifts in dialogue and the performative function of the tools in the events.

I began my analysis by reading the material associated with each unit of analysis to get a sense of the participating actors' argumentation. This made me attentive to the shifts in the workshop activities between flow and discontinuity and that resistance often appeared in the form of participants questioning the meaning of the tools. Observing this made me attentive to how change managers would often overcome said resistance by engaging in dialogues about the premise of the workshop, rather than dealing with the participants' core concerns. I searched literature that resonated with my impression of the unfolding events and found Goffman's (1974) notion of framing to resonate particularly well with my impressions and that doing a frame analysis could help theorize the analyses. I re-read my episodes with Goffman's concepts in mind, noting down instances, which served to establish or destabilize the workshop frame, attributing them with labels of either upkeying or downkeying events. I then carefully structured theorized narrative accounts around the empirical data. Rereading the narrative accounts, I provided each episode with a telling headline, to help the reader follow my interpretation of the episode.

The case

The biotech company launched a coordinated 'Lean transformation' four years prior to the analysed episodes. Throughout the Lean transformation, the company had become accustomed to using Lean tools to structure supply-chain-related improvement projects. During data collection, the company hosted a Lean office charged with developing Lean tools, facilitating their use and instructing the organization's members in correct tool-use. The RIE, mostly appearing a variation of a Kaizen event (Womack and Jones 2003), had been introduced to the company by external consultants. The RIE grew a positive reputation among the company's executives, who often encouraged its use to solve supply chain problems and making 'step change improvements' on clearly defined supply chain issues.

The guiding principles for the RIE stems from the Lean-based A3 tool (Shook 2008) a problem-solving approach designed to enable an efficient process of problem formulation, root-cause analysis and solution development, in a way that can be structured and communicated through a single visualizing interface (see Figure 1). The Lean office had described the RIE event week in a standard operating procedure (SOP), to guide the facilitators. The RIE program was designed to: 1) align participants' perspectives on the problem, 2) allow the knowledgeable participants to come up with ideas to help alleviate the problem, 3) ensure that the group prioritized a few important and manageable solution approaches, 4) make room for and support participants in developing- or providing blueprints for solutions, and 5) ensure that the solution approaches could be communicated so relevant stakeholders could buy into and support the approaches after the event. The descriptions provided in the analysis all occurred during the first day of the workshop which focused on aligning perspectives through data presentation and completing a cause-and-effect diagram to specify the problems to work on.

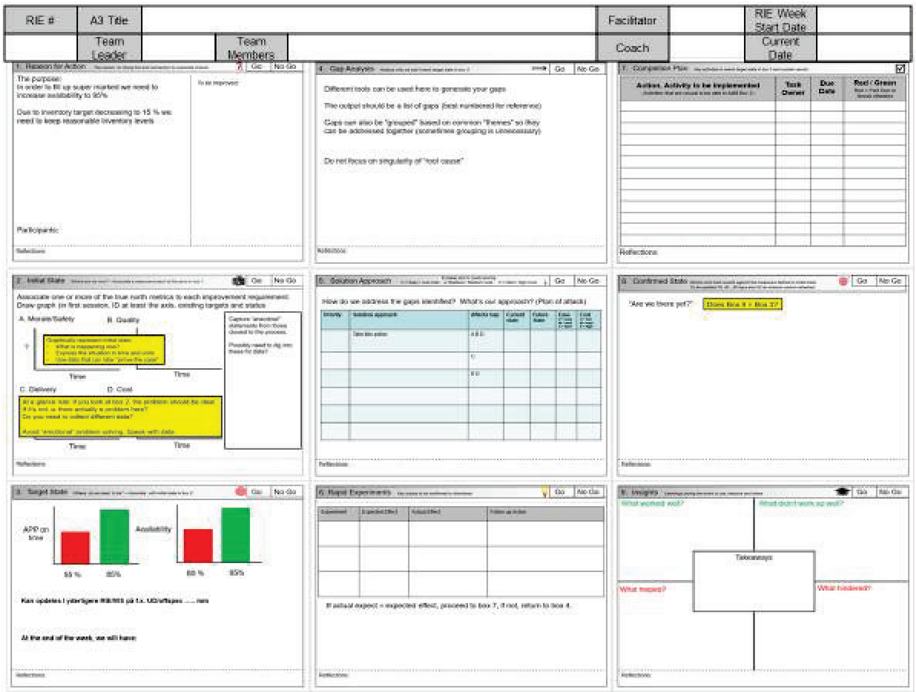


Figure 1: RIE nine-boxed A3

All phases of the workshop were structured by tools, some native to Lean others more generic. In the data presentation phase, the participants usually utilized Excel-based spreadsheets, diagrams, pareto charts and process charts to communicate their current situation. They used PowerPoint presentations to collate data, supporting them with graphics and text that facilitate narration and comprehension. To orchestrate the cause-and-effect analysis, facilitators use an iteration of the Ishikawa cause-and-effect diagram (Ishikawa and Ishikawa 1982), commonly referred to as a fishbone diagram. The exercise was intended to get participants to discuss problem related cause–effect relationships and make solution approaches. During the exercise, the problem description is written in the fish's 'head', which equates with box 3, 'target condition', of the A3. Each of the six fishbones designate prefigured themes, such as equipment, machinery work procedures, etc., considered standard categories for problem causes in a production environment. During the exercise, the participants enumerated potential causes of the problem in focus and then come up with solution approaches to the problem. To evaluate and compare these approaches, the facilitators ask the participants to quantify the value gained for each proposal. At the end of the exercise, the team chose a few solution approaches they would follow and develop over the RIE.

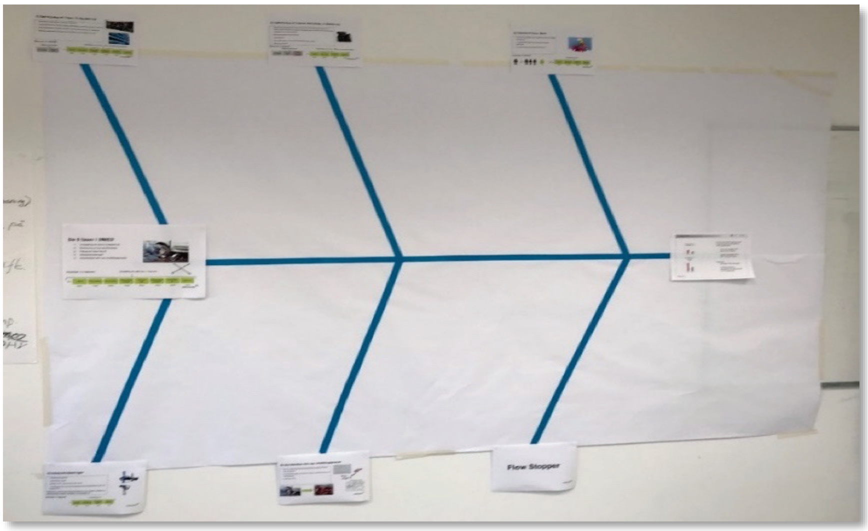


Figure 2: Picture of the inverse fishbone diagram used in the rapid improvement event

Each RIE participant performed a designated role with predefined responsibilities. The owner, typically someone from upper management, had the mandate of making sure the workshop was conducted and the solutions become implemented. The owner was obliged to encourage the improvement team to meet the RIE goal, articulate the necessity of the RIE to other stakeholders and source resources to enable the development of the solution proposals. The team lead, usually a designated middle manager, was responsible for facilitating and coordinating the RIE. The role of facilitator was given to a person with Lean responsibility employed in the line of business, who became responsible for the event practicalities and that the RIE unfolded as prescribed in the SOP. The role of coach would go to someone with greater Lean experience, typically a person from the Lean office. The coach would seeks to qualify the work during the event and guide the team by asking coaching questions. Those tasked with developing solutions during the RIE were referred to as participants. These were employees or managers with relevant knowledge on the subject matter. During the event week, the participants were expected to direct their full focus on the RIE event and leave daily operations to others. Six weeks before the event week, the group would to scope the project and define which data extracts would be necessary to have in the event week. In the 4-week period after the week, the team lead would arrange follow-up meetings to monitor the progress on developing, implementing and sustaining the solution approaches.

As the descriptions above indicate, the Lean management system is multifaceted, with the RIE making up one cog in a greater machinery. The system is composed of prescriptions, tools and metaphors that jointly provide methods and motivations for steering the implantation of changes in the production operations. The Lean management system provides methods for seeing and solving problems, sharing solutions and disciplining the organization to abide to new operation standards.

Analysis

The analysis contains narrative accounts of four episodes illustrating points of resistance that occurred during two different RIEs. The first RIE was aimed at reducing the changeover time on a production line, and the second RIE aimed at decreasing the number of batches failing to get timely quality control approval. Two of the analysed episodes are drawn from the first RIE, and the other two episodes are drawn from the latter.

Framing work strategy # 1 – referring to the manuscript

After a value stream assessment, a team of executives identified a significant bottleneck in the changeover work process on a production line, and decided that the department overseeing the production line should do a RIE to alleviate the problem. The goal of the RIE was formulated as an expectation of the department to halve the changeover time, a goal which was considered ambitious yet realistic. The changeover process comprised a series of consecutive labour-intensive, hands-on tasks performed by operators and punctuated with automated processes in which the operator would sit and monitor. The changeover process would often run across two shifts, and occasional failures to transfer necessary information between shifts caused errors and confusion. The work process was too lengthy for the managers to follow from start to finish, as the manager worked regular 8-hour, daytime shifts and had numerous other obligations. Therefore, neither the managers nor the assisting technicians truly knew how the operators performed the work process. Data logged from the production facility showed that the time expended on changeovers varied widely from four to fifteen hours.

Participants of workshop #1 – Reducing changeover time RIE

Role	**Name**
Coach – Lean Office	Chris
Facilitator – local Lean coordinator	Lenny
Team lead – department manager	Doris
Participants – associate manager	N/A
Technician	Karen
Technician	N/A
Operator	Keith
Operator	Tom
Operator	N/A
Repairman from Maintenance	N/A

Table 1: Participants of workshop 1

The RIE took place in a large meeting room at the production facility. The department manager and the facilitators had invited the participating operators according to their knowledge of the work process, openness to change and their tendency to voice constructive critique (see table 1). In launching the data presentation, Chris invited Karen to present a changeover process chart she had made. Being a technician, Karen did not perform the work process herself and had no hands-on experience with the work process as opposed to the operators. Karen had based the mapping on observations, time measurements and interviews. She had gathered her findings in a flowchart that represented the work process from start to finish (see figure 3). However, before Karen reached the end of her step-by-step presentation, an operator, Keith, objected to her account of one step, asserting that 'it takes more than 30 minutes'. By questioning the accuracy of the chart's content, Keith downkeyed the frame of the process chart as having epistemic authority. Attempting to resurrect the frame, Karen responded that she had witnessed this step of the process performed by an operator and therefore assumed it to reflect their work routines. To this, the operator, Tom, allied himself with Keith in destabilizing the frame, noting that he generally could not recognize his own routines in the chart. ‘We all do it differently,’ he added. The operators’ opposition digressed into a tug-of-war between the operators’ insistence that the mapping was unrealistic and Karen’s defence of her presentation. Seeking to get the participants to approach the discussion more constructively, Lenny, the facilitator, eventually interrupted, asking, ‘Can we please recap?’ Keith followed up by giving Karen inputs on how to modify her depiction. Karen jotted Keith’s suggestions on Post-it notes and hung them on the relevant steps of the process chart, saying that she would change these steps at a later stage. However, this sparked new discussions, as Tom disagreed with Keith on where the lunchbreak belonged in the work process. Building on this point, Keith added that Tom’s comment only served to illustrate how each operator worked differently, in terms of both the work process and the timing of shift breaks. This latter point further downkeyed the frame of the exercise, as the point now related to a more general concern that the tool could only fail in representing the heterogeneity of the operators’ routines. Lenny interrupted again, acknowledging the relevance of the discussion, but also noting that the workshop group needed to move on to stick to the time schedule. The operators, accustomed to follow orders, accepted Lenny’s utterance, and the workshop progressed without reaching a consensus on the current state of the work process or the legitimacy of the tool for representing this. Here, Lenny appeared to have deployed a functional strategy of upkeying the frame to a solution-focused workshop running on a predefined script, but in so doing implicitly accepted that the tool’s inability to represent the current state accurately.

In this first example of resistance to the Lean tool, the main conflict revolves around the tool’s ability to represent the operators’ experience of their work routines. Karen initially presented the process chart by enacting a sort of naturalized trustworthiness of the chart’s representative quality, but Keith’s objection downkeyed this frame. To re-establish the frame, Karen tried to insist that the chart actually represented reality, referring to her data collection to infer that the representation was both accurate and objective. This strategy failed though, as the operators’ shop-floor experience trumped her claims. Facing this resistance, Karen agreed to alter the content of the chart, accepting Keith’s input, seemingly a strategic attempt at recognizing Keith’s perspective. The strategy failed however, as a more fundamental critique arose. As Tom and Keith began disagreeing on the content that should figure in the chart, the group reached the conclusion that the work process was heterogeneous in nature and thus could not be adequately expressed as a uniform process on a chart. Consequently, a fundamental premise for using the flowchart came into question, and the frame of the entire exercise seemed to become unstable. Fundamentally, the operators were objecting to the simulacrum of sameness across their differing work routines. At this point Karen seemed to run out of functioning strategies, as it was no longer merely the content of the chart that was criticized; now, it was also the undergirding premises of the tool's design, which had become the object of critique. Lenny came to the rescue though, insisting that time was running out and the group simply had to move on regardless of the relevance of their discussions. With this, Lenny effectively punctured the frame of discussing the flowchart's representative qualities that Keith, Tom and Karen had come to enact. Instead, Lenny upkeyed the situation to one determined by a standardized manuscript that prefigured the contours of the group's interaction. Thus, the workshop progressed to the next phase, and Lenny quelled the downkeying critique.

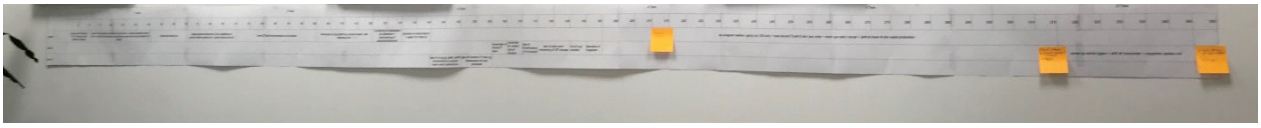


Figure 3: Picture of the flowchart hanging on the meeting room wall, representing the cleaning process

Framing work strategy # 2 – relaxing the frame

This next example occurred in continuation of the previous episode. The facilitators shifted the group's attention to a cause-and-effect diagram hung on the wall, informing the group that the next exercise entailed identifying problems in the work process. On Post-it notes, Lenny and Chris jotted down all the problems the participants could imagine might lengthen the changeover time, and placed them in the different categories on the cause-and-effect diagram. Afterwards, the group similarly identified solutions for each problem. Nobody objected to this facilitation method, at least not until the facilitators asked the participants to estimate how much time each solution could save. Gazing at the Post-it note marked 'Improving colour CT before cleaning', Lenny asked, 'How much time would that give us?' After some silence, an operator implied that the question was difficult to answer. Recognizing that it was not an easy question, Lenny added that he only expected them to come up with an estimate, thereby relaxing the seriousness of the frame and detaching it from expectations of strict scientific accuracy. '30 minutes!' Keith exclaimed. Lenny asked the group if they agreed, a question met with silence and nods. Chris wrote 30 minutes on a green Post-it note adding it as a problem–solution pair. Lenny continued, 'Finding tools before changeover process?' '30 minutes!' another operator suggested swiftly. Another Post-it note was added. 'Optimization of filter?' '20 minutes!' On a few more occasions, the participants had difficulties making up their minds on time estimates. On each occasion, Lenny would repeat his response: 'this is not an exact science, just give us your best guess; there may be variations.' This encouraged new bids and the team thus completed the exercise.

The example shows the unfolding events of a tool based exercise where participants are encouraged to project onto Post It notes their own experiences of problematic cause–effect relations and imagined future effects of problem alleviation. In effect, an exercise aiming at constructing a simulacrum useful for guiding and legitimizing further workshop action. Initially reluctant to give inputs, the participants might have feared that their projections would prove inaccurate. This is sensible, as the participants were unfamiliar with the workshop format and had yet to understand how they might be evaluated or held accountable for their workshop actions. Moreover, the facilitators ultimately encouraged guesswork, and the participants had no clear understanding of where to the exercise would lead. The participants' resistance posed a problem for Lenny, as he needed to complete the exercise before moving on to the subsequent prioritization exercise. For Lenny, the exercise appears to represent mostly an instrument for facilitating a "satisficing" decision making process (Simon 1947), concerned less with accuracy and more with obtaining sufficiently useful answers for the workshop to progress. To align the participants with this perspective Lenny reframed the exercise, downkeying the frame of rigor and accuracy by stating that he only expected a best guess from the participants and that the exercise was 'not an exact science'. As such, Lenny instead upkeyed a more pragmatic frame for the exercise. Acknowledging this new frame the participants enacted it by engaging with the guesswork in a more rapid, loud and playful manner. As the frame for the cause-and-effect diagram became accepted, the simulacrum-based exercise played out and the workshop could progress to its next phase.

Framing work strategy # 3 - insisting on a guiding metaphor

This episode played out in a more complex RIE than the previous one involving interdepartmental coordination. The focus was on increasing the rate of timely product approvals from the company's quality control laboratories (QC). Due to the complexity of the problem, all invited participants had deep or broad knowledge on the involved work process. The first example in focus presents an instance where a coach seeks to insert a Lean metaphor for guiding the development of the RIE, which is met with resistance.

Participants of workshop #2 – timely batch approval

Role	*Name*
Coach – Lean office	Chris
Facilitator – local Lean coordinator	Conny
Team lead – department manager from production	Timmy
Participants: – department manager from production	Marc
Department manager from QC	Laura
Associate manager from QC	Fabian
IT developer	Ole
Technician from production	N/A
Technician from production	N/A
Technician from production	N/A

Table 2: Participants of workshop 2

QC's main task was to deliver results of test samples used to ensure compliance before shipping. QC's workload often exceeded capacity. As a means of coping, QC developed service level agreements (SLA) an internally defined framework for prioritizing the department's deliveries. With the SLA system, QC grouped each department into various clusters, attributing each cluster with different definitions for timely delivery of sample results. The SLA system had been developed under supervision of a previous department manager, and no record existed indicating why the time targets had been defined as they had. Laura confidently presented the SLA system during the data presentation, adding that they only needed more 'fast hands' to increase capacity, as the SLA system provided an optimal platform for performing their tasks. Although proving to be a functional tool for the QC department, from a Lean perspective, the SLA system ultimately led a suboptimal batch production setup. In Lean, batch production is the antithesis to the advocated flow based production setup. Chris used the opportunity of Laura's presentation to problematize the thinking underlying the SLA system while introducing the Lean metaphor of flow.

Chris: This may be an odd question, but can it happen, in QC, that you don't comply with the SLA, but are you still approved on time?

Laura: Yes.

Chris: Also despite QC's being delayed on that [SLA] time?

Laura: Yes.

Chris: And the opposite happens, that you do it [in compliance with the SLA], but it is still not approved on time.

Laura: Mmm. [confirming]

Chris: Then I have a pseudo question. How appropriate is this SLA thinking for QC? You could say it's an extra division for QC, making it into a silo. How much does that contribute to the overall flow?

Chris continued by drawing on a metaphor of their being a football team.

Chris: If you see this as a team sport, then one player may do really well, but you may still lose the match. And it's not very appropriate for you to consider yourself a success [locally], if you're not considered a success further down the line.

Defending the SLA system, Laura and Fabian explained their thinking on the SLA system. Laura had two arguments. First, the SLA system improved their planning and enabled them to work more efficiently. When demand exceeded capacity the SLA system helped them prioritize. Second, that the department had no data on upstream demand pressure. A better IT setup could help them, Laura noted. This comment excited the IT consultant Ole, who suggested they could build a single time stamps system that could work across department. However, on the same token Ole noted that the SLA system seemed to offer an element of stress management, as it removed the need for the constant re-planning, which aa pull-based system would create. Fabian added that the SLA system did a satisfactory job, and raised the concern that full transparency on down stream demand could incentivize some QC employees to deliver samples just in time, which could cause problems if a re-test proved necessary. The SLA system's buffer time prevented such issues.

In effect, Chris was flooded with arguments for preserving the SLA system. Ultimately, he recognized the complexity of the situation as well as him lacking a solution to the problem. Yet, he added that he would have to insist on the relevance of his concern, that QC's grouping of samples was guided by principles of mass production, which led to detrimental effects on the overall product flow. As this spurred the participants to pick up the discussion for another round, Timmy interrupted. He acknowledged the importance of the discussion but referring to the workshop script, he reminded the team that they were only required to get a sense of the data at this point in the workshop. Solution designs would come later. The team therefore moved on to the next phase of the workshop, but as it progressed, the theme of batch production versus flow was rearticulated. Ole repeatedly referred back to the metaphor of flow and the group as a football team, again expressing his belief that a single KPI needed to be constructed to cater to the overall flow. Laura gradually warmed to the idea. One outcome of the workshop became that Laura and Ole began developing a single time stamp useful for setting new standards for QC delivery.

This episode illustrates a resistance case slightly different than the previous two. Here the coach was less concerned with workshop progress and more with the quality of the unfolding discussions. The metaphor of flow, detached from any tangible tool, took effect as a discussion mediating agent . The flow metaphor challenged Laura's narrative the SLA system. As Chris installed the flow metaphor as a success-determining coordinate. However, the participants did not readily accept the metaphor, which instead provoked Laura and Fabian justify their routines. Taking a defensive stance, they laid out the complexity of the situation, thereby flooding Chris with counterarguments. Chris admitted his lack of better concrete alternatives, but did so in a way that kept the thought figure intact. He steadfastly insisted that thinking according to an image of flow, rather than a local batch system was a guiding principle for the frame in which they should be developing solution approaches. By delivering his argument, almost as if it was a law of nature, he held his ground, eventually provoking the participants to respond to it.

Framing work strategy # 4 – sidestepping a concern

This final episode occurred in immediate continuation of the one previously described. In this example participants downkeyed the frame of the cause-and-effect diagram by arguing that the exercise failed to meet the purpose of finding the root cause. After the data presentation, the facilitators hung the cause-and-effect diagram on the wall. The participants gathered in a semi-circle around it. Conny launched the exercise by asking the participants to come up with reasons why the sample batches often failed to get approved on time. Before any ideas were proposed, Marc expressed concern about the quality of the inputs they would be able to give.

Marc: I just have one difficulty going to this step now.

Conny: Yes?

Marc: For me it's not clear what exactly the problem is yet. It's difficult to go into – what's the cause – without knowing exactly.

/ Laura: Mmm [confirming]/

/ Conny: Yeah? /

Marc: We saw a lot of data showing that we have the KPIs that aren't good. And then maybe there's something in QC, there's something maybe in [another department], but for me it's not <u>linked</u> together, so I cannot see a kind of cause or problem. What is actually the problem here?

Conny: So you can't see what the problem is?

Marc: I can see the

Laura: Yeahh

Marc: problem statement here

Conny: <u>That's</u> the problem / [points to the head of the cause-and-effect diagram]

Marc: and also the target we have.

Conny: Yes. So can't we say that there are many causes to

Marc: And then we saw a lot of sub-problems. But, I just don't see how they fit together.

Conny attempted to challenge Marc's downkeying critique by referring to a principle uttered by Timmy earlier, 'little strokes fell great oaks', arguing that they could merely sum up the gained time from each solution proposal. Marc, however, did not buy the argument.

Marc: It seems, at least to me, obvious that we have a system problem. Some things aren't tied together, and if we don't find out what this system problem is, we can't make a countermeasure, we can only make containments. Therefore, we risk only making containments and then, when something goes wrong again at some point, we will again be clueless on what the root cause actually is.

Facing the concern for following the workshop time schedule juxtaposed with the Lean-based ideal of finding the true root cause, the facilitators had to find a way of navigating the paradoxical situation. Timmy recognized Marc's concerns, and proposed again the idea of summing up gains. Thereby, Timmy attempted to downkey the frame as guided by a metaphor of root cause. Laura now entered the discussion, siding with Marc bringing in another native tool of Lean, the pareto chart. In doing this though, Laura also opened to the possibility of sidestepping their downkeying stance.

Laura: Like Marc said, what will it matter? You'd like to, at least I'd like to, think in a pareto, right? I mean, if I'm to put some energy into this, where do I get the most benefit out of it? Because that's how we work, right?

[1 second pause]

Or. Or maybe we should just try it [going forward with proposing solutions].

Conny: Yes, exactly. I'd say, what's going to happen now is that we'll come up with some ideas.

Conny latched on to Laura's softening up comment by suggesting again the frame of summing up gains. However, Laura still did not buy this framing of the exercise.

Laura: But how can you come up with the solution if you don't know what the problem is? This is what I am concerned about.

Conny: We <u>do</u> know what the problems are. You've just listed them this afternoon. You <u>can</u> see the problems, you just don't know what the cause is.

[2 seconds pause]

Laura: But I don't know if /

Conny: / Yes, you also know the cause, you just don't know how to solve it. That's what we're going to look into now.

Laura: Okay, I'll be quiet.

Conny: But all that data you build on to set your goals will be noted down as 'benefits' by the end of the week. We'll do that with every single thing we'll work on.

Laura: Okay. So it's a bit of a brainstorm?

Conny: Yes, it's strictly brainstorm.

Laura: Okay, then I'm calmer.

After this exchange, Marc also expressed compliance with the exercise, although noting that they should remain attentive to trying to identify the underlying problem as they progressed through the week. The group then continued to the next exercise assigned in the workshop manuscript.

In this example, the participants objected to the notion that the cause-and-effect diagram could reveal the true nature of the problem. Marc started by downkeying the frame of the exercise implying that the group had yet not received sufficient data to assemble an adequate representation of the real problem. This downkeying act differed from those in the other examples as Marc simultaneously made an attempt of upkeying the exercise to be framed as guided by a pursuit of root cause, implying more scientific rigour in their approach through the metaphorical import. Through the root cause metaphor, Marc aligned his critique of the current frame with fundamental Lean principles. This put the facilitators in an awkward position with the exercise being persistently downkeyed by one of the key Lean principles the frame was supposed to be based on. The workshop manuscript was designed to ensure that solutions were developed over the course of the event week, but did not allow the ideal root-cause analysis prescribed in the Lean literature (Shook 2008). The RIE manuscript simply did not include time to halt the process and accommodate a lengthy root-cause analysis.

Caught between the juxtapositioning frames of speed and rigor, the facilitators now had to find a way of rekeying the frame. To circumvent the resistance, Lennny and Conny first attempted to relax the frame of finding root cause, suggesting instead that a summation of solutions would be sufficient. Whereas the strategy of relaxing the frame worked in episode one as previously described, in this episode the participants were not so easily swayed. As Laura began to back Marc, upkeying a Lean frame centred on pareto charts and problem analysis, she rejected the relaxation strategy. However, in the same turn she also provided Conny with an utterance that indicated willingness to sidestep her downkeying concern stating: 'Or maybe we should just try it.' Quick to pick up on this, Conny went on to insist that the frame of the cause-and-effect diagram was functional and that the participants' knowledge was greater than Marc and Laura had recognized. Laura again seemed to disagree, saying 'I don't know if', before being interrupted by Conny. Laura finally backed down from the confrontation, uttering the phrase 'okay, I'll be quite' followed by her own suggestion that they frame the exercise more pragmatically 'a brainstorm' rather than a cause-and-effect analysis.

One can only speculate why Laura and Marc eventually sidestepped their concerns. One possibility is that, as second-level managers, their professional experiences should make them recognize the facilitators' struggles more easily. Accustomed to managerial responsibilities, they might have sensed that the workshop format prevented further discussion. As such, Laura eventually saved face of the facilitators by allowing them to progress despite their lacking ability to address the fundamental downkeying concern. By engaging pragmatically with the tool-based simulacrum Laura now seemed willing to enact a sort of pretend play of cause-and-effect relations, by reframing the exercise a brainstorm.

Discussion and conclusion

The article started by noting that change management tools often expose change managers to resistance as actors struggle to recognize the simulacra offered by the tools. Analysing ethnographic data from a workshop employing Lean-based tools, I identified four active framing strategies for overcoming such resistance: 1) referring to the script, 2) relaxing the frame, 3) insisting on a guiding metaphor and 4) sidestepping a concern.

First, the strategy of referring to the script illustrates how frames are sustained by being tied to the broader organizational network. In this example, the tool's frame is tied to the tool's manuscript and to the Lean related compliance structures by which the broader organization operates. The episode exemplifies how change managers can reinforce the frame of tool's status as a central mediator of organizational communication by tying it to authoritative elements of the organizational network in which the tool operates. In this regard, the tools do not have to produce authentic conviction of its simulacrum to remain functional. Instead, its functionality relies on its attachments to authoritative organizational structures, and the degree to which powerful actors have tied it to the formal organization.

Second, the strategy of relaxing shows how change managers can manage resistance arising from participants reading the tools too literally. In the episode, the tool's function ceased because users failed to align their experienced reality with the tool's projections. Here, the change manager promoted a more pragmatic relationship between the simulacrum and lived experience, by downkeying the expectation of representational accuracy opting instead for a less serious and more playful frame for tool enactment.

Conversely, observing the *third* strategy of insisting on a guiding metaphor, we see how change managers, can also overcome resistance through steadfast naturalization of a metaphorical principle when upkeying a frame. By insisting on a metaphor, as if a law of nature, a change manager can in some occasions manipulate the frame through which participants determine their success or failure in tool based exercises.

Fourth, with the example of participants side-stepping a downkeying concern the study reveals how not only facilitators but also workshop participants play a part in enabling tool functionality, for instance when participants become inclined to save face of a struggling tool wielding change manager.

Whereas resistance to change is traditionally linked to a drive towards preserving status-quo and one's work-related performability (Coch and French 1948, Lewin 1951), more recent studies into the specific issues that arise when companies attempt to implement Lean tools have expanded the theorization on resistance tying exploring the way actors make sense of the tools (De Cock 1998, Andersen and Røvik 2015, van Dun *et al.* 2017, Hauge 2018). With this study, I contribute to this literature revealing a type of resistance tied to epistemic uncertainty.

Uncertainty has already been explored in change management studies but mainly in relation to fear of detrimental change effects such as layoffs (DiFonzo and Bordia 1998). Epistemic uncertainty is different to this, as it relates to tools' role as epistemic agents, and their provision of simulacra as a means of affording actors to enact a certain reality portrayal. Depending on how well the simulacrum reflects a sensed reality and the frame it participates in, the simulacrum may provoke uncertainty on how to know reality. As visualizing tools use simulacra to mediate organizational actors' experience and articulation of reality, the tools also risk provoking stifling discussions, as actors for instance embark on discussions of determining the actual existence of object or relation inferred by the tool. Following Deleuze (1968–1994), such debates quickly becoming nonsensical, as the reference and the referred should be considered as fundamentally separated entities. Eventually, actors can only access the tool's inferred reality by aligning with said simulacrum. Either the actor accepts the simulacrum as a valid representation of reality, if nothing else then either for practical purposes, or the actor starts questioning the simulacrum, which plunges the actor into epistemic uncertainty. Uncertainty that ties in with a scepticism towards the links between experienced reality and the tool's simulacrum of it. This, I suggest is a manifestation of what has been called 'the problem of the simulacrum' (Muniesa 2014, p. 20), an unease produced when organizational actors engage with artificial reality renderings as a means of realizing business performance and change. A problem, which this study reveals can lead to resistance manifested as; confusion, reluctance to engage with the tool, objections and disbelief.

Framing (Goffman 1974), as the analysis shows, becomes a crucial ingredient in change managers' and workshop participants' struggles of settling the status of the tool and its simulacra. Framing involves collective experimentation with the tool's meaning through attempts at defining the situated rules of play. Solving questions like, how the tool stands in relation to different scientific ideals may become necessary to resolve, for the tool to complete its prefigured course of action. Framing is eventually a pragmatic approach to the unresolvable problem of the simulacrum. Overcoming uncertainty and resistance does not prerequisite resolving the core tension of the simulacrum. Rather, actors find ways of overcoming resistance by manipulating the frames in which the tools participate.

The effectiveness of framing and the necessity of functioning frames for visual tools and metaphors to operate, underscores the relevance of increased academic interest into the implications for resistance. Framing work is a compensatory performance, otherwise invisible to the rationalizing frame it may cater to, as is the case of Lean tools. The paper suggests that framing work can be seen as a variation of tool related invisible work, 'work that gets things back "on track" in the face of the unexpected' (Star and Strauss 1999, p. 10 citation in original), which change managers must perform.

References:

Andersen, H. and Røvik, K.A., 2015. Lost in translation: a case-study of the travel of lean thinking in a hospital. *BMC Health Services Research*, 15, 1–9.

Bryant, M. and Stensaker, I., 2011. The Competing Roles of Middle Management: Negotiated Order In the Context of Change. *Journal of Change Management*, 11 (3), 353–373.

Callon, M., 1998. An Essay on Framing and Overflowing: Economic Externalities Revisited by Sociology. *The Sociological Review*, 46, 244–269.

Coch, L. and French, J.R., 1948. Overcoming resistance to change. *Human relations*, 1 (4), 512–532.

De Cock, C., 1998. Organisational change and discourse: Hegemony, resistance and reconstitution. *Management*, 1 (1), 1–22.

Deleuze, G., 1968–1994. *Difference and repetition*. New York, NY: Columbia University Press.

DiFonzo, N. and Bordia, P., 1998. A tale of two corporations: Managing uncertainty during organizational change. *Human Resource Management*, 37 (3–4), 295–303.

van Dun, D.H., Hicks, J.N., and Wilderom, C.P., 2017. Values and behaviors of effective lean managers: Mixed-methods exploratory research. *European management journal*, 35 (2), 174–186.

Goffman, E., 1974. *Frame analysis: An essay on the organization of experience.* Boston, MA: Northeastern University Press.

Hansen, P.R. and Clausen, C., 2017. Management Concepts and the Navigation of Interessement Devices: The Key Role of Interessement Devices in the Creation of Agency and the Enablement of Organizational Change. *Journal of Change Management*, 17 (4), 344–366.

Hauge, A.M., 2016. The Organizational Valuation of Valuation Devices: Putting Lean whiteboard management to work in a hospital department. *Valuation Studies*, 4 (2), 125–151.

Hauge, A.M., 2018. Situated valuations: Affordances of management technologies in organizations. *Scandinavian Journal of Management*, 34 (3), 245–255.

Hernes, T., Hendrup, E., and Schäffner, B., 2015. Sensing the Momentum: A Process View of Change in a Multinational Corporation. *Journal of Change Management*, 15 (2), 117–141.

Hertz, E., 2000. Stock markets as "simulacra": observation that participates. *Tsantsa*, 5, 40–50.

Holmemo, M.D.-Q. and Ingvaldsen, J.A., 2016. Bypassing the dinosaurs? – How middle managers become the missing link in lean implementation. *Total Quality Management & Business Excellence*, 27 (11–12), 1332–1345.

Hughes, M., 2007. The Tools and Techniques of Change Management. *Journal of Change Management*, 7 (1), 37–49.

Huizinga, J., 1949. *Homo Ludens*. London: Routledge.

Ishikawa, K. and Ishikawa, K., 1982. *Guide to quality control*. Asian Productivity Organization Tokyo.

Klaussner, S., 2012. Trust and Leadership: Toward an Interactive Perspective. *Journal of Change Management*, 12 (4), 417–439.

Krafcik, J.F., 1988. Triumph of the lean production system. *MIT Sloan Management Review*, 30 (1), 41.

Langstrand, J. and Elg, M., 2012. Non-human resistance in changes towards lean. *Journal of Organizational Change Management*, 2012.

Lewin, K., 1951. *Field theory in social science: selected theoretical papers*. New York, NY: Harper & Brothers.

Lorino, P., 2018. *Pragmatism and Organization Studies*. Oxford: Oxford University Press.

March, J.G., 1971. The technology of foolishness. *Civiløkonomen*, (18 (4)), 4–12.

Mastio, E.A., Clegg, S.R., Pina e Cunha, M., and Dovey, K., 2021. Leadership Ignoring Paradox to Maintain Inertial Order. *Journal of Change Management*, 0 (0), 1–19.

Muniesa, F., 2014. *The Provoked Economy*. London: Routledge.

Rother, M., 2009. *Toyota kata*. McGraw-Hill Professional Publishing New York, NY.

Rother, M. and Shook, J., 2003. *Learning to see: value stream mapping to add value and eliminate muda*. Boston, MA: Lean Enterprise Institute.

Shook, J., 2008. *Managing to learn: using the A3 management process to solve problems, gain agreement, mentor and lead*. Boston, MA: Lean Enterprise Institute.

Simon, H.A., 1947. *Administrative Behavior: a Study of Decision-Making Processes in Administrative Organization*. New York, NY: Macmillan.

Star, S.L. and Strauss, A., 1999. Layers of silence, arenas of voice: The ecology of visible and invisible work. *Computer supported cooperative work (CSCW)*, 8 (1), 9–30.

Vikkelsø, S., 2016. Technologies of Organizational Analysis: Charting 'Organization' as a Practical and Epistemic Object. *Sts Encounters-Dasts Working Paper Series*, 8 (3).

Womack, J.P. and Jones, D.T., 2003. *Lean thinking: banish waste and create wealth in your corporation*. New York, NY: Simon and Schuster.

5 Conclusion and Discussion

5.1 A brief summary

This dissertation has studied how change management tools affect change managers in the context of a Lean implementation in which a game-based change management education program was deployed to facilitate the transformation. I have taken a special interest in change management tools and what they do to change managers. The relationship between the tool and the change manager is relevant to study in a situation where the demand for organizations to adapt quickly to new technologies, work conditions, and market dynamics has meant a growing interest in developing competent change managers. Organizations increasingly rely on skilled change managers equipped with tools to facilitate change. The norms, metaphors, and visualizations expressed by these tools are not simply extensions of the change manager's ambitions; they also frame what organizational change is and how change can be managed. Becoming a change manager has to do with handling this framing and accommodating the tools of the trade.

There is already much research on change management tools and change managers, but a performative perspective on the relationship between tools and change managers is missing. This is unfortunate because the performative perspective is well equipped theoretically and methodologically to follow sociomaterial entanglements and shed light on the way tools, managers, and organizational change are co-constituted. To study the specific tools and actors relating to Novozymes' change management activities, this dissertation employed the performative perspective to pursue the research question: '*How do change management tools affect change managers?'* Operationalizing this question further, I formulated three sub-questions that have been addressed in the dissertation's three articles:

1. How can business simulacra's provocation of human subjects be theorized?
2. How is open-endedness and structure balanced in the liminal space of a transformative leadership education program? and what form of change does it enable?
3. How do change managers overcome resistance to change management tools?

In answering my research question, I start by answering the dissertation's three sub-questions. This to recap significant findings and the argumentative building blocks necessary for providing the final answer.

5.2 Answering the research question

In this section, I start by answering the sub-questions while highlighting significant findings from the articles. I summarize by providing an answer to the overall research question. After this, I consider the dissertation's engagement with the performative perspective and consider how it contributes to change management studies and performativity literature. I conclude by considering the dissertation's implications for practice.

5.2.1 How can business simulacra's provocation of human subjects be theorized?

I answered the first research question by analyzing the assemblage of Wallbreakers and in this the construction of the figures of organizational change designed to educate change managers. The article showed that these simulacra are designed to provoke human subjects to articulate a personal change management reality, while shaping the articulated content in the process.

The article identified ways in which the tool's design enables change managers to reflect on and speak about meaningful themes through game mechanics, narrative, aesthetics, dramatic videos, humor, castigation, and reflexivity techniques. Through its collected effects, the game is designed in a way that provoke articulations on the change manager's change situation while altering the expression in the process, as the sourced content filters through the tool's figures and discourses when becoming articulate. Theorizing the findings I introduced Lyotard's (1971-2011) concept of the figural to consider the entanglement of sight, discourse and the unconscious. Through this theorization I suggest that the artificial arrangement of business as thrilling, entertaining and important helps change management discourse connect with change managers' sense of their situation. The game arrangement increases the likelihood that change managers take the simulation's figures of change on board, and use them for articulating an intimate truth on the organizational change in question, the organization, and themselves. As such, Lyotard's provides a theoretical explanation for why abstract indication often trumps pursuit of naturalistic explications for business simulacrum designers, as open-ended abstraction lends itself well to the projective potentials of human psyche.

By indicating that tools exert their effects by making change managers articulate their personal organizational reality under the influence of the tool's figures of change management, the article illustrates how the tool makes unique and personal experiences appear as variations of generic and uniform figures of change management. The article suggests that business simulacra affect change managers by making them respond to the tool, and that this response can be seen as the effect that the tool produces on the subject.

5.2.2 How is open-endedness and structure balanced in the liminal space of a transformative leadership education program? and what form of change is enabled?

I answered my second research sub-question by doing an interview- and observation based study of Wallbreakers, in which I followed two managers' engagement with the game (presented in article 2). For contextualizing the educative tool in a broader literature on transformative techniques, I presented the notion of a transformative liminal space (Turner 1969, Czarniawska and Mazza 2003) and anthropotechniques (Sloterdijk 2009-2013). This helped the analysis by providing a theorized perspective on the transformative act of temporarily stepping out of normalcy. The study showed how the game enabled change in the change managers through a mix of open-ended reflexivity techniques coupled with game mechanics leading participants to experiencing both that they increased their change management competences, while simultaneously leading them to problematize themselves and the organizational change in focus. This mix of changes to the participants' narratives subsided with a process of exploring and settling new higher change management goals, serving both as attractors of novel engagement and as humbling reflectors of the gap between the mundane reality and the ideals of change management.

In the article I suggest that the game balances the risk of discussions getting off-track or that learning digress into naïve repetitions of the curriculum in part by the game's normative suggestions. Further, the participants themselves take part in this balancing as they negotiate collectively on what can be problematized and the consequences this should have. In this, I consider the change enabling experience of obtaining an elevated perspective, linked to the artificiality of the reality engagement, leading to a sense of acquiring overview and insight. Whereas this provides a confidence boost, which could lead to overzealous managers, the study also shows how the managers have trouble putting this learning into work in practice. Further, the participants' development of a more humble narrative on the state of the Lean transformation, reflected in the game's change management ideals, indicates how the workshop's curriculum functions as a normative thought provoking event, rather than a procedural directive. The mix of a highly controlled educative setup punctuated with uncontrolled reflection spaces enable dynamic transformative potential that is neither completely open nor completely prefigured, directed towards certain common notions on change management, which the game arrangement mobilize and energize in the act.

5.2.3 How do change managers overcome resistance to change management tools?

I answered the third sub-question by analyzing how change managers approach resistance to change management tools (presented in article 3). The article showed how change management tools tend to provoke epistemic uncertainty in those who engage with them, and that change managers engage in framing work as a means of overcoming this resistance. Epistemic uncertainty arises when actors start doubting a tool's change simulacrum. This occurs when tools' simulacra challenge actors' personal experience of reality, for instance, when tools portray complex cause and effect relationships as too simple, or when process charts dissemble the worker's experience of the work routine. The uncertainty linked to the tools' unrecognizable portrayal of reality can lead actors to criticize the tools or embark on lengthy discussions on the simulacrum. Epistemic uncertainty can thus manifest as a type of resistance that threatens the tool's prefigured functionality. One could argue that epistemic uncertainty also presents an occasion for actors to stop their change-focused processes and rethink their shared reality and the problem at hand. Yet, the practical arrangements which tools tend to appear in (time bound, output oriented, etc.) and make change managers obliged to overcome the resistance to succeed.

Framing work is not a way to solve the problem of the simulacrum. Rather, framing work is a way of navigating around the problem, and making sure that the tool remains functional despite the philosophical and epistemic conundrums that the tool provokes. Effectively, change management tools produce a need for framing work, a type of 'invisible work' (Star and Strauss 1999).

5.2.4 How do change management tools affect change managers?

From a summary of the three articles, I now direct the attention back to the initial research question to provide an overall answer. Throughout the dissertation, I have shed light on the question by investigating how change management tools are designed to affect change managers, how change managers use change management tools to reflect upon themselves and their organizations, and the work change managers perform when using change management tools.

Looking across these studies, I suggest that the most direct answer to my research question is that *change management tools affect change managers by adding, strengthening, and changing ties between the change manager and the broader change management network of texts, figures, tools, and techniques*. A change management tool works as a vehicle that transports the change manager to and across the change management network with haste, and in doing so provokes the change manager to reflect and react. Below, I expand on what this perspective implies, narrowing in on the question of *how* this adding and strengthening of ties happens.

First, change management tools add and strengthen ties because they translate large parts of the change management network and reduce it to smaller elements that are easier for the change manager to engage. As such, change management tools can condensate large amounts of text through a translation that collapses theory and practice into one. A change management simulation, for instance, translates a curriculum into a responsive machine, which a change manager can engage with through experimentation and play. This way, the change manager becomes capable of covering larger parts of the change management network in less time and makes the move from theory to practice with less effort. The Lean related A3 problem-solving tool translates the principles of scientific thinking into a practical organizational intervention method. Although the tools tie the change manager to the change management network in a speedy fashion they do so by sacrificing the nuances of their source material. Tool construction is a violent process of bending, cutting through and reshaping elements of the change management network. Tools arrive at the change manager the expense of neglecting and forgetting, as the tool never quite repeats its source material, but rather makes it different. Thus, change management tools present change managers with a surface of the change management network, a simulation of the network beyond. This is a very practical simulation though, which also deserves recognition as a proprietary element of the change management network once it is in circulation.

Second, change management tools add and strengthen ties to the change management network by mobilizing elements of the change management network through other modes of attachment. Notably, I have highlighted the mode of provocation of the unconscious. Change management tools can provoke the change manager through images, metaphors, and idealizing narratives, making them respond. Some change management tools affect change managers, luring them to articulate their innermost sense of self in ways that simultaneously morph the articulation, channeling it so that it falls under the tool's figurative and discursive regime. This way, change management tools may even affect the change manager's self-image, as the change manager's self-expression effectively becomes a continuation of the tool's suggestions under the right circumstances (i.e., through an effective tool facilitation).

Third, change management tools affect managers through the arrangements in which they become active. There is a great difference between encountering the change management tool in a socially detached setting, for example, in a bookrack or a website, and encountering the tool in a workshop setting, where meaningful collective action centers on the tool. This dissertation has only studied the latter form of tool performance in activities marked by social interaction and collective meaning-making. It is safe to conclude that the setting in which the tool appears influences how the tool affects the change manager. The central role that change management tools tend to acquire in larger social change management arrangements increases the tools' chances of attaching to the change manager. Depending on whether the arrangement is playful, dramatic, serious, task-oriented, explorative, etc., the tool will influence the change manager in different ways. A change management tool can provide an occasion for the change manager to detach from normalcy and engage with reality through an alternative gaze. In a setting where the change manager is responsible for the tool's performance, the arrangement will demand that the change manager use and frame the tool in a way that fits the purpose, thus forcing the change manager to change the tool's ties with the change management network. Change management tools often acquire a central role in change management processes, which undoubtedly alters how the tools affect change managers.

Seeing change management tools as vehicles that add and strengthen ties to the change management network provides a practical perspective on the relationship between change management tools and change managers. This opens for a general interest in further examining how different tools form different ties in different situations, and how they affect change managers. As such, the perspective opens up a new approach to studying change management tools as a study of how ties form.

5.3 Contributions

With the findings listed above in mind, I now discuss the dissertation's contributions, starting with contributions to the study of change management research. After this, I consider contributions to performativity studies and, finally, contributions to practical considerations.

5.3.1 Contributions to the change management literature

In this section, I clarify what I consider to be the most noteworthy contributions in regard to change management literature. I highlight three contributions made by applying a performative perspective to change management. Explicating the dissertation's contributions in the following section, I explain how the performative perspective (Muniesa 2014) has provided me with a more potent study approach than the seemingly related traditions of the emergent perspective (Tsoukas and Chia 2002) and strategy-as-practice (Jarzabkowski, Paul Spee, *et al.* 2013). To this end, I stress how applying the performative perspective offers a certain lens to change management research, which I argue the research field should explore further. The three contributions are:

1) Presenting and applying the concept of the performative simulacrum, and hereby offering a third position between the so-called 'representationalists' and 'antirepresentationalists' positions in change management literature.
2) Introducing a notion of epistemic uncertainty to discussions on resistance suggesting a consideration of reality-preservation as an alternative to self-preservation.
3) Rendering change management tools active agents by framing them as provocateurs, offering a new looking glass to studies of tools' performance effects.

Although present in the change management literature, the performative perspective is in its infancy. In the Routledge Companion to Organizational Change from 2012, for instance, socio-materiality appears as a final chapter located in the section of 'The Future,' understood as the future of research in organizational change (Boje *et al.* 2012). Unfortunately, the chapter does not unfold performativity as a theoretical lens, and the authors generally seem to lack studies that exemplify what a performative perspective of organizational change can help us see. As such, it appears that locating the chapter in the section on future perspectives was appropriate at the time. However, in this dissertation, I mean to stress that the future is now, and the time is ripe for unfolding and asserting the potentials of the performative perspective. I am not alone in this, as attempts of applying the performative perspective to change manage management studies have already been made (Oswick and Robertson 2009, du Gay and Vikkelsø 2012, Langstrand 2012, Lalonde and Gilbert 2016, Hansen and Clausen 2017, Elmholdt *et al.* 2018, Dupret 2019). To specify my theoretical position within this stream I located a set of key concepts belonging to performativity literature, which I used to guide my study. I consider the pairing of these concepts a sort of conceptual experimentation that has yielded different results depending on the pairing of the empirical data to which they have been applied.

5.3.1.1The performative simulacrum as an alternative to antirepresentationalism

This dissertation contributes to change management studies by illustrating the utility of a performative conceptualization of the simulacrum as a way of approaching Lewin's contributions while staying true to post-structuralist thinking. The concept of performative simulacrum offers an alternative way of addressing discussions on 'antirepresentationalism' in change management research (Chia 1995, 1999, Tsoukas 1998, Weick 1999, Tsoukas and Chia 2002). I covered this in the introduction.

I propose importing the concept of the performative simulacrum as a way of delivering on the philosophical idea of Rorty, and others, while disassociating from these debates on antirepresentationalism within change management research, which have now obtained an awkward connotation of anti-Lewin, anti-Weber, etc. The performative perspective aligns well with Rorty's formulation of antirepresentationalism by similarly promoting epistemological multiplicity (Lynch 2013, Marres 2019). One could argue that the philosophical and theoretical overlap between the two concepts makes it superfluous to promote one over the other. However, besides the difference in theoretical and philosophical hinterlands, I argue that the concept of the performative simulacrum differs from the concept of antirepresentationalism by virtue of the connotations of its wording. A performative simulacrum connotes the positive. Antirepresentationalism connotes the negative. The word *performativity* promotes a search for action in the studied object. The word *anti* promotes an attitude of opposition and disproving of the object.

By mobilizing the concept of the performative simulacrum rather than engaging with an anti stance in my analysis of Wallbreakers, I found encouragement to consider carefully ways in which visualizations of organizational change settle, how change management visualizations effectuate change, and to follow the actual processes through which said change occurs. Examples of analytical considerations that I would have been shunned if I had entrapped the analysis in a preconceived disregard of the change figuring artifacts and metaphors and models appearing in my data.

I suggest that the time is in for change management research to let go of the anti-position. With the concept of the performative simulacrum, I promote an interest in the productive forces of change visualizations, metaphors, prescriptions, and simulations. The concept encourages scholars to tap into all elements of the change management network, including Lewin's manifestations. The point is not to become a representationalist or leave critique at the doorstep. As the dissertation demonstrates, mobilizing the performative perspective does not exclude critical thought. However, here, criticality means 'considering truth from all possible angles' (Muniesa 2014, p. 30)—a contrast to the 'critical kitsch' (2009–2013, p. 152) that narrows them down.

This dissertation contributes to change management studies by showing that there is indeed a third position beyond representationalism and the emergent scholars' skewed version of antirepresentationalism when studying change management and organizational change.

5.3.1.2 Adding the notion of epistemic uncertainty to discussions on resistance

A second contribution to change management research is the suggestion to think of resistance to tools as tied to epistemic uncertainty. The literature on resistance is rich and holds a range of alternative conceptualizations. A common notion, however, is that resistance is a type of defense that keeps actors from adopting change in order to self-preserve (Lewin 1947a, Coch and French 1948). Resistance has also been conceptualized as something that arises when there is a lack of fit between the change and the organization (Dent and Goldberg 1999), as a tension between differing 'force-fields' and collisions between 'life-spaces'(Lewin 1951). Further, it has been conceptualized as mobilization with both destructive and productive potentials (Zoller and Fairhurst 2007) and as a potential that resides in both change managers and change recipients (Randall and Procter 2008) (see for an example, Article 2, which resonates this finding).

My studies of Lean tools in action highlight that epistemic uncertainty presents a certain occasion for resistance. Epistemic uncertainty makes actors reluctant to engage with scripted use of a tool's reality portrayal, expressed, for instance, as doubt, confusion, disbelief, or ridicule that can bring prescript tool-driven change processes to a halt. Here, resistance is not related to the preservation of the status quo or the self. Rather, resistance relates to the preservation of a certain sense of reality.

Did I really need performativity literature to do the study though? Could I not have found what I did by following related traditions, such as the emergent perspective or strategy-as-practice? My answer to this is maybe. Yet, the performative perspective has provided a hinterland of theoretical concepts, heuristics for thinking and a 'sensitivity' to certain themes and problems, as well as an encouragement/expectation to follow the surprising and unexpected (Mol 2010). As opposed to this, I see the two alternative traditions just mentioned as carrying certain limitations in their outlook, making them less equipped to inspire the analyses I pursued. As noted in the introduction, the emergent perspective has a tendency to use philosophical points to lever its own perspective. A case of a tool-based Lean activity and a change management simulation deploying, among other things, a three-step change model lends itself well to a critique of representational regimes, and I would feel an expectation to criticize the tools and promote emergent sensemaking activities (Shaw 1997, Tsoukas 1998). This type of approach, as I have already argued, hinders the explorative potentials that a more agnostic and performativity-oriented research tradition offers. On the part of strategy.as-practice, I argued that the theoretical inconsistency of the stream made it difficult for me to work with and to elevate the theoretical discussions.

In contrast to these limitations, the performative perspective has aided me in analyzing change managers' and tools' performativity in a theoretically consistent manner, which has yielded surprising results (at least for me). With the introduction of epistemic uncertainty to the discussions on resistance, I offer change management research a new looking glass for studying tool-based activities. As the study shows, epistemic uncertainty is not easily resolved as it relates to theoretical and philosophical discussions on material mediation of the relationship between sense and reality (Deleuze 1969–1990, Lyotard 1971–2011, Smith 2006). My contention here is that to better grasp the resistance at play in such cases, scholars can gain from contemplating the problem of the simulacrum (Muniesa 2014) when studying how practitioners practically remedy resistance by framing (Goffman 1974) their way out of the problem.

An interesting aspect of this conceptualization of resistance is that it ties resistance to the processes of epistemological settlement, which is a classical preoccupation in performativity studies (Latour and Woolgar 1979). This conceptualization not only inspires new sensitivity to the study of resistance but also illustrates how the performative conceptualization helps shed new light on organizational activities. Through these findings, the dissertation contributes with nuances to the persistent questions in change management research on how to think of resistance and how to overcome it (Coch and French 1948, Lewin 1951).

5.3.1.3 Change management tools as provocateurs

A final contribution related to the latter has emerged from employing the performative conceptualization of the simulacrum to closer studies of the change management tools' effects on the change manager. A core finding is that tools work through provocations. In the case of Wallbreakers, the tools provoked the managers to strive for higher goals and articulate their own resistance to Lean, and in the case of the RIE the tools provoked epistemic uncertainty.

This finding calls into question common approaches to evaluating the operational effects of change management tools of which grand claims tend to be made (Womack *et al.* 1990, Beer 2002). Critical assessments, however, cannot find evidence for these grand claims (Appelbaum *et al.* 2012, Arlbjørn and Freytag 2013), although indications of measurable positive tool-based effects exist (Abildgaard *et al.* 2018). Studies that aim at delivering a more realistic and complex account of what drives competitive success when faced with changes in the competitive landscape indicate that change management tools play a smaller role than one could expect, and that their significance should rather be considered a small part of a complex set of events and actors (Pettigrew and Whipp 1993).

By taking the performative perspective, this dissertation shows how the tools in Wallbreakers and the RIE act as provocateurs that affect organizational actors' performance by making actors respond to the tools' suggestions. The perspective of provocation differs from an affordance perspective, as an affordance perspective can lead to the consideration of the tool–user an agent strictly in pursuit of utility (Jarzabkowski and Kaplan 2015). By thinking instead of the tool as a provocateur, the tool naturally becomes an active part of a *reciprocal* relationship, which, the context of organization studies, invites even more open thinking on what tools actually do to users, not only what users do to tools.

With the analyses of Wallbreakers, the dissertation shows how abstract suggestions on good change management make some change managers engage in efforts to realize the simulation's images in reality, provoking change managers to reevaluate both who they are as managers and the virtues and accomplishments they ought to strive for. With the analyses of the RIE, the dissertation showed how organizational actors reacted by both opposing the tools' suggestions and also by reevaluating their current work processes and sometimes locating a need for making changes. In turn, tool users not only seek utility in a tool but also reencounter themselves and the organization in the tool, which in turn mobilizes them to take action. Considering the performative notion of 'an engine not a camera' (MacKenzie 2008) is indeed relevant when studying tools' performativity in action, as the dissertation reveals with different examples how the change management tools provoke actors to become preoccupied with manifesting the change management tools' suggestions as tangible changes in the organization.

5.3.2 Contributions to performativity studies

Although the literature on performativity has inspired the dissertation's analyses, my combination of concepts and empirical findings also contribute back to this literature. I highlight two contributions related to discussions of a) subjectivity construction, and b) maintenance and repair.

5.3.2.1 The construction of subjectivity

The question of the construction of subjectivity is not exactly central to performativity studies, but it has been debated (Ferreira 2019). Within the literature, Latour (2004) presented a performative account of subjectivity, suggesting that subjectivity should be considered as arising as the subject becomes sensitive to different sensorial elements and becomes able to identify and discriminate between them. Latour used the example of wine tasting to show that subjectivity is constructed through the interplay of encountering a material world while being cultivated to label and value different material elements differently. He spoke of this as the training of noses. Later, Latour borrowed the metaphor of a 'plug-in' from the computer world, proposing to think of the subject as continuously affected by entities outside the body, and through this gradually being programmed to differentiate between sensed objects (Latour 2005, p. 207). Immediately, the analogy makes sense. Consider, for instance, the change management tools studied in this dissertation. Thinking of them as sensitizing plug-ins that make change managers sensitive to seeing change management objects in the reality of practice is not completely off.

However, the metaphor of plug-in may have its limitations. After all, human beings are not computers. They are materially different. The human body is a composition of wet matter that communicates internally through various analog signals, out of which some become digital, of course. A computer, by contrast, is a composition of metals and silicone communicating strictly through digital signals and running on the basis of complex preconfigurations and digital inputs. These two entities wire in fundamentally different ways. If this is the case, should performativity literature not have a vocabulary that is more attuned to the specificity of the human being when the human being is studied? Does the same metaphor apply equally well to two such opposite material compositions? Would some other concepts apply better to address human subjectivity? I contend that Muniesa offers a way forward in relation to this, though further conceptualization work is needed.

Muniesa described the simulacrum in theorizing about his encounter with a perfume consumer testing site. This is not dissimilar to Latour's (2004) setting for describing his subjectivity forming nose. At the perfume testing site, Muniesa located the center for the settlement of perfume preferences (Muniesa and Trébuchet-Breitwiller 2010). Thus, the two authors highlighted different things from their two encounters. Whereas Latour identified the construction of subjectivity, Muniesa identified a reality effectuating simulacrum. Muniesa noted that the artificiality of the setting provoked him to articulate his taste and subjected him to a sort of containment, predominantly by questionnaires that limited his freedom of expression. If the notions of provocation and containment are applied to a study of social scientific techniques (Lezaun *et al.* 2013) they start becoming relevant to discussions on subjectivity.

Broadly, the performativity literature can be divided into two streams. The first is performativity as expression (Butler 1999) that is related to Goffman's (1949) notion of the performance of the self in everyday life. The second is performativity as effectuation (MacKenzie 2008), a continuation of Austin's (1962) and Callon's (1998) work on performative utterances. In a sense, performativity as expression places the locos of control at the level of the performing agent. The will to act lies here. Performativity as effectuation locates the locos of control in the space *between* the performative utterance and the responding network. With Muniesa's (2014, p. 23) reference to provocation, through Heidegger's (1954) notion of 'herausfordern', something is added to our idea of what is in between, when speaking of performative utterances. Heidegger's herausfordern implies that something is released or unveiled, which is best understood as a *potential* stemming from the provoked object. This opens up some interesting analytical caveats. In the German language, 'herausfordern' has family resemblance (Wittgenstein 1954) with another term applied by Heidegger, that is, 'hervorbringen,' which means to bring forth (Heidegger 1954–1977, p. 14). Coupling these terms strengthens the connotation of provocation as having to do with summoning something that is already there, at least as potential. Taking this meaning of provocation to its conclusion in the context of performativity analysis, it appears as if an invisible agent is introduced to the performative network, an agent we can only speak of as a reality that will be if conditions are met.

Muniesa's (2014) insistence on the notion of 'reality as effectuation' (Muniesa 2014, p. 16) relates to this. How should human beings' articulations of that which is only there as a potential be addressed analytically in the context of performativity studies? Here, remembering Lyotard's (1971–2011) figure-matrix and Klossowski's (1963) phantasm seems relevant.

As a way of adding a layer of understanding to the provocative event, and its implications for the construction of subjectivity, I highlight the relevance of Lyotard's (1971–2011) conceptualization of the figural, introduced in Lyotard's earlier work, written in an epoch before coining postmodernism and, assumedly, before encountering the work of Austin, and a notion of performativity. This part of Lyotard's work has, to my knowledge, not been unfolded in the current debates on performativity studies. One could argue that the obvious reason for this is that Lyotard did not address performativity in the book, which makes it irrelevant to the discussion. I will object to this, however, as the thinking Lyotard exercised throughout the book describes exactly a performativity of provocative events, based on an investigation of the human being's relation to visual works of art.

Lyotard (1971-2011) used the concept of the figural to theorize how visual objects connect with discourse and the human agent's unconscious. Note that this co-constituting element of the human agent's unconscious potentials and esoteric discursive formation of sense when responding to the presented provocation is already implied in Muniesa's (2014, pp. 88–91) analyses of the provocative simulacrum. However, it is never fully explicated or theorized. I propose that Lyotard's work on figure discourse contributes to such a theorization. The concept of the figural theorizes the co-constituting elements of provocative events.

As the dissertation has shown, the relevance of importing Lyotard's concept of the figural when analyzing a concept such as a change management simulation relates to increased sensitivity to the design principles that operate between the visual, the discursive, and the contextual enabling potentials (i.e. the humoristic or chastising techniques in Wallbreakers) for provocations of the unconscious. Lyotard's theorization is eventually quite radical, as it dissolves the boundaries between the seen object and the seer. As Lyotard's pointed out, the image-figure operates on the figure-matrix, and thereby reshapes the seer through events of articulation. Barad's (2007) notion of intra-action comes to mind.

Nevertheless, importing a notion of the unconscious into the performativity literature is not without problems, as the concept is already heavily occupied by psychoanalysis making its incorporation into the poststructuralist traditions a challenge. I recognize this. However, there are ways of going about it while staying true to some fundamental ideas of performativity, as we have seen (Klossowski 1963, Deleuze 1969–1990, Lyotard 1971–2011). Further, this may even present a way forward, for instance by honing the performative notion of 'generalized symmetry' (Callon 1986) by considering the unconscious of technology, as Posatti (2020) did in his study of artificial intelligence. Thus, challenging Latour's conceptual notion of plugins for theorizing subjectivity construction should not be conflated with a challenge to the notion of generalized symmetry. Rather, my conceptual experimentation here is meant as a way of adding to the concepts of performativity, to help social sciences open new ways of comprehending sociomaterial interplay.

Bringing Lyotard's theorization of the figural back in, further contributes to performativity literature by providing an occasion for remembering an uncanonical text from a canonical figure. However, operations such as this should be done not just for nostalgic pleasures. We should do it only to locate ways forward. I consider employing uncanonical parts of Lyotard's work to expand my empirical analysis, as one example of doing this.

5.3.2.2 Maintenance and repair

By pairing the performative conceptualization of the simulacrum (Muniesa 2014) with the concept of framing (Goffman 1974), a third concept becomes relevant, namely that of invisible work (Star and Strauss 1999). I made this argument in article 3, and I would like to expand upon it now. I contend that the dissertation also contributes to performativity studies by adding to a growing body of literature that deals with maintenance and repair (Denis 2019). Maintenance and repair studies are associated with the feminist branch of performativity studies. Notably, the studies on the silenced and forgotten actors work that enable other, larger, or more noticeable actors to maintain their performance (Star 1990). The research interest here is coupled to Goffman's (1956, p. 69) notion of the work that takes place 'backstage' of a given performance, a notion that applies both to the level of the organization and the level of the individual. Although maintenance and repair studies largely focus on machines and technology (Akrich 1993, De Laet and Mol 2000), inspiration from ethnomethodology is also active through a focus on topics such as conversational 'repair' (Sacks 1992), which applies well when studying repair and maintenance of social ordering in conversation (Graham and Thrift 2007).

With my current study, especially that on Lean tools, the dissertation shows how change management tools are also dependent on maintenance and repair. The contribution to this particular branch of research stands out because it goes against the usual interest of following actual maintenance workers or underprivileged workers in general.

The work of a change manager at a change management workshop can, of course, be rendered invisible to anyone who is not looking, notably executives in the C-suite. Yet, the change manager is everything but invisible to those around. The change manager is most often supposed to be highly visible and has a core duty to influence the work of others, which is hard pressed if one is invisible. Therefore, when I speak of invisible work in the context of change management, I do not refer to the change manager's role as such or the work performed by the change manager, given that the work is seldom invisible. Instead, invisible work relates to a specific aspect of the work change managers do when they draw upon tools, which has to do with managing the uncertainty that change management tools tend to produce. Thus, it is the vast amount of energy put into framing tools that I consider invisible in the context of my study, as it is not formally recognized. Of course, there has been talk about Lean resistance in the change management literature (Langstrand and Elg 2012, Andersen and Røvik 2015). However, a clear description of the type work I observed, seemed to be missing. I hope my study inspires a renewed interest in the invisible work of managers (Mintzberg 1973), especially the change managers wielding tools and simulacra of organizational change. It seems to me that we are only just getting started on this topic.

In summary, this dissertation contributes to maintenance and repair studies by showing how to recognize the unrecognized work of recognized organizational actors, a hitherto overlooked theme in the literature.

5.4 Practical considerations

The dissertation study provides insights into the ways in which tools and change managers interact and take part in shaping an organization's change management narratives and practices. This represents a valuable contribution to practice.

In this final section, I summarize three points in which the dissertation's theoretical discussions and empirical findings contribute to practical considerations. These are:

- Have humble expectations to change management tool but recognize their wild potentials.
- Change management tools pose new demands.
- Change management tools change change managers.

5.4.1 Have humble expectations to change management tool but recognize their wild potentials

From a practical perspective, the dissertation's study of the game-based change management tool Wallbreakers tells a two-fold story. On the one hand, the dissertation provides a somewhat disarming account of the design story of Wallbreakers, illustrating how the tool's figures and educative points have been sourced from a narrow selection of prescriptive literature that has undergone significant translations, altering key points. Considering how many academics have taken offense with the prescriptive literature, Wallbreakers potentially represent double trouble for organizations, at least making the argument for this would be easy. Wallbreakers, a copy of bad copies of true knowledge. In relation to this problem, the dissertation indeed shows that a consequence of subjecting change managers to this simulacrum of change is that the simulacra often end up confusing those who try to apply the simulacra as tools for engaging with mundane problems. Eventually, practice reality does not fully align with the simulated reality, and the change manager is faced with the challenge of further translating the change simulacra or reconsidering their local relevance, when putting them to work. A general tenant we can draw from this dissertation seems to be, that a pause is warranted, if the primary motivation for deploying a tool like Wallbreakers is to show change managers what change management *really* is.

The other side of the story on Wallbreakers speaks of the transformative potential of the tool. The dissertation has shown how the game's simulacra can function as an occasion for change managers to think differently, as the simulation provokes them to articulate something meaningful about themselves and the organization. I propose thinking of the simulation not as a tool that educates change managers on how to perform a repeatable practice. Instead, the simulation provokes reflection, as it functions as a type of 'spiritual exercise' (Hadot 1995), a facilitated space for meditating on past and future action. By provoking reflection, the simulation can unveil deeper truths about the state of the organizational change in question, the change manager, and the organization at large. The simulation does not represent a reality of change, but it presents some common notions of change management that allow the change manager to reflect on the situation with new images as guiding reference points. Think of the change management simulation not as a mirror but as a magic mirror. It distorts the image of reality, and provokes new perspectives, reflections, and actions.

Consequently, the organization should not expect significant and predictable performance effects when deploying such a tool. As we have seen, the outcome of engaging with the tool is tied to the way the change manager engages with the tools and the themes that become active through this engagement. This is not to say that it is a waste of time. Indeed, leaving normalcy and allowing change managers to speak to reality through the distorted images of a magic mirror can turn into the event unveils silenced taboos, unfreezes the managers and catalyzes new change management actions. The potentials are wild.

5.4.2 Change management tools pose new demands

By studying change managers' engagement with change management tools, a practical observation is that change management tools pose new demands and produce new kinds of work.

Consider these examples of new demands and types of work introduced through the tools. In the case of Wallbreakers, managers ended up reformulating their implementation plan, concluding that they were not nearly as close to the goal as expected. This led to the planning of new activities. In the case of the RIE, one notices how the work performed through the broad Lean management system provided both the occasion for the event and the implementation of the solutions developed. Before the event, tool-based value stream assessments identified the problem, and over the course of the event, new solution tasks were created that the participants were held accountable for completing. Lastly, in relation to the actual use of the tool, the study shows that the change manager must perform framing work to make the participants willing to engage with the tool. Thus, change management tools produce work for the organization in various ways. The tools generate new expectations and discipline the organization to react to these expectations.

Tools' suggestions may easily come under attack, and change managers must defend them and adapt them to the situation at hand. One could argue that change management tools should come with a maintenance and repair budget. There is a reason why Lean implementations often breed Lean Offices. The work the tool implementation creates demands management and oversight. Organizations could gain from carefully considering this aspect of change management tools. If the organization expects tools to generate a positive impact on the organization by engaging with a change management tool, the organization needs to contemplate the kind of work that should be expected to be generated by the tool. A business case on whether a tool should be imported should thus include reflections on the feasibility of importing this or that change management tool.

There is a great difference between implementing a Lean tool, which demands disciplining the organization across multiple levels of the organization, and spending two days reflecting on change management through a game simulation. Yet, provocative workshops should elicit new perspectives on what the organization needs to do, which similarly requires work if it is to translate into observable changes in the organizational operations. Although tools for change management education and Lean are different, it applies for both tools, that time and resources for subsequent action is essential for unleashing the productive potentials of the tool engagement. Such issues should be contemplated, when organizations consider engaging with change management tools.

5.4.3 Change management tools change change managers

Finally, a practical consideration of one of the dissertation's fundamental interests relating to how change management tools affect change managers, namely what it implies to become a change manager. The dissertation's approach to considering this issue has been to focus on the way change managers engage with tools. With Sloterdijk's (2009-2013, p. 195) vocabulary, we can think of the meeting between the tool and the change manager as a 'conversion.' Conversion connotes more than just a transition between belief systems as it also implies an activation of the subject, which leads the subject off the beaten path of habits to practice differently. Tools tie the change manager to the images, norms, and techniques of change management. The demonstrated enactment of both Wallbreakers and the RIE illustrates this dynamic, revealing how managers can become devoted to catering to new images, and ideas on what is good for the organization. A tool-affected change manager is different from one who has not been affected. A change occurs. A tool-affected change manager has been submerged and expanded simultaneously by the tool, and will likely use the tool to explore new ways of practicing change management. The conversion of the change manager implies a submission to the tool and critical reflections on how the tool can further the good of the organization, a certain tool derived activation of the change manager.

As the dissertation has shown, there are multiple perspectives on change management in circulation, and change management normativity can thus imply various notions, from inducing momentum, catering to emotions, disciplining the organization, to unfolding paradoxes and reaching business goals. As a result, a tool-affected change manager will perform many different roles, depending on the affecting tool. Thus, the tool takes part in the change manager's construction of the self, sense of organizational change, and the organization's situation.

Becoming a change manager involves active engagement in change management practices. The tool-based activation of the change manager does not imply that a change manager will become able to simulate prescribed performances. On the contrary, the change manager will unavoidably be faced with limitations of the tool and unexpected demands. Flexible adaptation to the situation appears pivotal. The dissertation suggests that a competent tool-using change manager is one who:

- acknowledges the potential of different tools and is able to select among them to fit the situation.
- treats the tool as a pragmatic aid to reach a desired outcome, not as a claim on reality.
- is competent at wielding the tool according to prescriptions and understands its rationales.
- monitors the need to deviate from prescriptive use of the tool and adapts to changes in the situation.
- reflects critically on the tool's limitations and its potential undesirable secondary effects.
- thinks of tools as means rather than ends.

5.5.4 Concluding remarks

A common question I have been asked when describing my study of Lean and game-based change management tools has been 'Do they work?' Although I understand where this question comes from and sympathize with its relevance, I have avoided engaging directly with it in the dissertation. Instead, I have pursued the more qualitative question of *how* they work, and allowed myself to engage with questions regarding the tools' performativity. This is certainly a rhetorical technique that has allowed me to avoid submerging the tool to a definitive diagnosis of good versus bad. Yet, I will also argue that engaging with a question of how they work has allowed for a more realistic account of my subject matter. The dissertation provides insights and considerations that will make it easier for a reflective reader to assess a tool's workability in relation to a specific context.

If, however, someone insisted on an answer to the difficult question posed above, my answer would be, "Yes, change management tools work." However, I would add, "they may not always work in the fashion you imagine." Depending on how and where one looks, tools do both more and less than what the literature typically ascribes to them. Tools may indeed become central agents in highly impactful tangible changes to the organization, whereas at other times, they become negligible, or operate on a smaller scale, for instance as when operating on local social aspects of the actors' sense of self. Depending on their usage, tools unleash different potentials in the organization. By staying sensitive to the performative relationship between the change manager and the change management tool, the dissertation provides explanations to, how different outlets meaningfully can subject the same tools to both awe, ridicule, and critique.

I hope the dissertation contributes to furthering the discussions on this complicated relationship between the change management tool and the change manager, as I believe this to be an underexplored but essential aspect of change management.

References

Abildgaard, J.S. and Nickelsen, N.C.M., 2013. Making Materials Matter—A Contribution to a Sociomaterial Perspective on Work Environment. *Nordic Journal of Working Life Studies*, 3 (4), 62–83.

Abildgaard, J.S., Nielsen, K., and Sverke, M., 2018. Can job insecurity be managed? Evaluating an organizational-level intervention addressing the negative effects of restructuring. *Work & Stress*, 32 (2), 105–123.

Abt, C.C., 1987. *Serious games*. Lanham, MD: University Press of America.

Akrich, M., 1993. Essay of technosociology: A gasogene in Costa Rica. *In*: P. Lemonnier, ed. *Technological choices. Transformation in material cultures since the Neolithic*. London: Routledge, 289–337.

Ala-Laurinaho, A., Kurki, A.-L., and Abildgaard, J.S., 2017. Supporting Sensemaking to Promote a Systemic View of Organizational Change – Contributions from Activity Theory. *Journal of Change Management*.

Alvesson, M. and Kärreman, D., 2007. Constructing mystery: Empirical matters in theory development. *Academy of management review*, 32 (4), 1265–1281.

Andersen, H. and Røvik, K.A., 2015. Lost in translation: a case-study of the travel of lean thinking in a hospital. *BMC Health Services Research*, 15, 1–9.

Appelbaum, S.H., Habashy, S., Malo, J., and Shafiq, H., 2012. Back to the future: revisiting Kotter's 1996 change model. *Journal of Management Development*, 31 (8), 764–782.

Argyris, C., 2004. Double-Loop Learning and Organizational Change. *In*: J.J. Boonstra, ed. *Dynamics of Organizational Change and Learning*. Hoboken, NJ: John Wiley & Sons Ltd, 389–402.

Arlbjørn, J.S. and Freytag, P.V., 2013. Evidence of lean: a review of international peer-reviewed journal articles. *European Business Review*, 25 (2), 174–205.

Austin, J.L., 1962. *How to Do Things with Words*. Oxford: Oxford University Press.

Avolio, B.J., 2004. *Leadership Development in Balance*. 1 edition. Mahwah, N.J: Lawrence Erlbaum.

Barad, K., 2007. *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. California: Duke university Press.

Barley, S. and Kunda, G., 2001. Bringing Work Back In. *Organization Science*, 12 (1), 76–95.

Barnard, C.I., 1938. *The Functions of the Executive*. Cambridge, MA: Harvard University Press.

Bass, B.M., 1990. From transactional to transformational leadership: Learning to share the vision. *Organizational dynamics*, 18 (3), 19–31.

Bateson, G., 1972a. *Steps to an ecology of mind*. New York, NY: Ballantine Books.

Bateson, G., 1972b. A theory of play and fantasy. *In*: R. Innis, ed. *Semiotics: An introductory Anthology*. Bloomington, IN: Indiana University Press, 67–73.

Baudrillard, J., 1981–1994. *Simulacra and simulation*. Ann Arbor, MA: University of Michigan press.

Beer, M., 2002. *Building organizational fitness in the 21st century*. Harvard Business School Working Paper.
Beer, M. and Nohria, N., 2002. Cracking the code of change. *In*: *HBR's 10 Must Reads on Change*. Brighton, MA: Harvard Business Review Press, 88–96.
Bendixen, M., 2007. *Rådgivende ingeniørers udfordringer, et praksisstudium i professionel service-innovation med fokus på materialers og menneskers betydning, ph.d.-afhandling*. Lyngby: DTU Civil Engineering.
Blanchard, D., 2007. Census of U.S. Manufacturers -- Lean Green and Low Cost [online]. *Industry Week*. Available from: https://www.industryweek.com/leadership/companies-executives/article/21936547/census-of-us-manufacturers-lean-green-and-low-cost [Accessed 18 Feb 2021].
Blok, A., Farias, I., Roberts, C., Farias, I., and Roberts, C., 2019. *The Routledge Companion to Actor-Network Theory*. Routledge.
Blumberg, F.C., Almonte, D.E., Anthony, J.S., and Hashimoto, N., 2013. Serious games: What are they? What do they do? Why should we play them. *In*: K.E. Dill, ed. *The Oxford handbook of media psychology*. Oxford: Oxford Library of Psychology, 334–351.
Bogdewic, S.P., 1999. Participant observation. *In*: B.F. Crabtree and W.L. Miller, eds. *Doing Qualitative Research*. London: SAGE Publications Inc, 47–71.
Boje, D.M., Burnes, B., and Hassard, J., 2012. *The Routledge companion to organizational change*. Routledge London.
Boston Consulting Group, 2021. Change Management [online]. *BCG Global*. Available from: https://www.bcg.com/capabilities/business-transformation/change-management [Accessed 17 Feb 2021].
Boxenbaum, E., Jones, C., Meyer, R.E., and Svejenova, S., 2018. Towards an Articulation of the Material and Visual Turn in Organization Studies. *Organization Studies*, 39 (5–6), 597–616.
Boyatzis, R.E., 1998. *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: SAGE Publications.
Bueger, C., 2013. Actor-network theory, methodology, and international organization. *International Political Sociology*, 7 (3), 338–342.
Burnes, B., 1996. No such thing as … a "one best way" to manage organizational change. *Management Decision*, 34 (10), 11–18.
Burnes, B., 2004a. *Managing change: A strategic approach to organisational dynamics*. London: Pearson Education Limited.
Burnes, B., 2004b. Kurt Lewin and complexity theories: back to the future? *Journal of change management*, 4 (4), 309–325.
Burnes, B., 2004c. Kurt Lewin and the Planned Approach to Change: A Re-appraisal. *Journal of Management Studies*, 41 (6), 977–1002.
Burnes, B., 2004d. Emergent change and planned change – competitors or allies? The case of XYZ construction. *International Journal of Operations & Production Management*, 24 (9), 886–902.
Butler, J., 1999. *Gender trouble: feminism and the subversion of identity*. New York: Routledge.
Caldwell, R. and Dyer, C., 2020. The performative practices of consultants in a change network: an actor–network practice perspective on organisational change. *Journal of Organizational Change Management*, 33 (5), 941–963.
Callan, G. and Williams, J., 2011. A return to Jean-François Lyotard's Discourse, Figure. *Parrhesia*, 12 (12), 41–51.
Callon, M., 1981. Struggles and Negotiations to Define What is Problematic and What is Not. *In*: K.D. Knorr, R. Krohn, and R. Whitley, eds. *The Social Process of Scientific Investigation*. Dordrecht: Springer Netherlands, 197–219.
Callon, M., 1986. Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay. *The Sociological Review*, 32 (1_suppl), 196–233.
Callon, M., 1998a. *The Laws of the Markets*. Oxford: Blackwell/The Sociological Review.
Callon, M., 1998b. An Essay on Framing and Overflowing: Economic Externalities Revisited by Sociology. *The Sociological Review*, 46, 244–269.

Callon, M. and Latour, B., 1981. Unscrewing the big Leviathan: how actors macro-structure reality and how sociologists help them to do so, 17.

Callon, M. and Muniesa, F., 2005. Economic markets as calculative collective devices." Organization Studies 26(8. *Organisation*, 26, 1229–1250.

Casler, C., 2020. *Reconstruction in Strategy and Organization*. Frederiksberg: Copenhagen Business School [Phd].

Chia, R., 1995. From modern to postmodern organizational analysis. *Organization studies*, 16 (4), 579–604.

Chia, R., 1996. *Organizational Analysis as Deconstructive Practice*. Berlin-New York: De Gruyter.

Chia, R., 1999. A 'Rhizomic' Model of Organizational Change and Transformation: Perspective from a Metaphysics of Change. *British Journal of Management*, 10 (3), 209–227.

Coch, L. and French, J.R., 1948. Overcoming resistance to change. *Human relations*, 1 (4), 512–532.

Cochoy, F., 2014. A theory of 'agencing': On Michel Callon's contribution to organizational knowledge and practice. *The Oxford handbook of sociology, social theory, and organization studies: Contemporary currents*, 106–124.

Cooren, F., 2004. Textual agency: How texts do things in organizational settings. *Organization*, 11 (3), 373–393.

Cooren, F., Thompson, F., Canestraro, D., and Bodor, T., 2006. From agency to structure: Analysis of an episode in a facilitation process. *Human Relations*, 59 (4), 533–565.

Cummings, S. and Angwin, D., 2015. *Strategy Builder: How to create and communicate more effective strategies*. Hoboken, NJ: John Wiley & Sons.

Cummings, S., Bridgman, T., and Brown, K.G., 2016. Unfreezing change as three steps: Rethinking Kurt Lewin's legacy for change management. *Human Relations*, 69 (1), 33–60.

Cunliffe, A.L., 2016. "On Becoming a Critically Reflexive Practitioner" Redux: What Does It Mean to Be Reflexive? *Journal of Management Education*, 40 (6), 740–746.

Czarniawska, B., 1997. A four times told tale: Combining narrative and scientific knowledge in organization studies. *Organization*, 4 (1), 7–30.

Czarniawska, B., 2016. Performativity of social sciences as seen by an organization scholar. *European Management Journal*, 34 (4), 315–318.

Czarniawska, B. and Mazza, C., 2003. Consulting as a Liminal Space. *Human Relations*, 56, 267–290.

De Cock, C., 1998. Organisational change and discourse: Hegemony, resistance and reconstitution. *Management*, 1 (1), 1–22.

De Laet, M. and Mol, A., 2000. The Zimbabwe bush pump: Mechanics of a fluid technology. *Social studies of science*, 30 (2), 225–263.

Deleuze, G., 1968–1994. *Difference and repetition*. New York, NY: Columbia University Press.

Deleuze, G., 1969–1990. *The Logic of Sense*. London: The Athlone Press.

Deleuze, G. and Guattari, F., 1972–1983. *Anti-Oedipus: capitalism and schizophrenia*. Minneapolis, MN: Univeristy of Minnesota Press.

Deleuze, G. and Guattari, F., 1980–1987. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis, MN: University of Minnesota Press.

Denis, D.J., 2019. Why do maintenance and repair matter? *In*: A. Blok, I. Farias, and C. Roberts, eds. *The Routledge companion to actor-network theory*. London: Routledge, 283–293.

Dent, E.B. and Goldberg, S.G., 1999. Challenging "resistance to change". *The Journal of Applied Behavioral Science*, 35 (1), 25–41.

Dewey, J., 1938. *Logic The Theory Of Inquiry*. New York: Henry Holt and Company.

Dews, P., 1984. The Letter and the Line: Discourse and Its Other in Lyotard. *Diacritics*, 14 (3), 39.

Dingwall, R., 1997. Accounts, Interviews and Observations. *In*: G. Miller and R. Dingwall, eds. *Context and Method in Qualitative Research*. London: SAGE Publications, 52–65.

Du Gay, P. and Vikkelsø, S., 2017. *For formal organization: The past in the present and future of organization theory*. Oxford, UK: Oxford University Press.

Dunphy, D. and Stace, D., 1993. The Strategic Management of Corporate Change. *Human Relations*, 46 (8), 905–920.

Dunphy, D.C. and Stace, D.A., 1988. Transformational and Coercive Strategies for Planned Organizational Change: Beyond the O.D. Model. *Organization Studies*, 9 (3), 317–334.
Dupret, K., 2019. Performative silences: Potentiality of organizational change. *Organization Studies*, 40 (5), 681–703.
Elmholdt, K.T., Clausen, R.T.J., and Madsen, M.T., 2018. Seductive Atmospheres: Using Tools to Effectuate Spaces for Leadership Development. *Journal of Change Management*, 18 (4), 257–280.
Endrejat, P.C., Meinecke, A.L., and Kauffeld, S., 2020. Get the crowd going: eliciting and maintaining change readiness through solution-focused communication. *Journal of Change Management*, 20 (1), 35–58.
Feldman, M.S. and Pentland, B.T., 2003. Reconceptualizing Organizational Routines as a Source of Flexibility and Change. *Administrative Science Quarterly*, 48 (1), 94–118.
Ferreira, A.A.L., 2019. How to study the construction of subjectivity with ANT? *In*: A. Blok, I. Farias, and C. Roberts, eds. *The Routledge Companion to Actor-Network Theory*. London: Routledge, 273–282.
Flyvbjerg, B., 2006. Five misunderstandings about case-study research. *Qualitative inquiry*, 12 (2), 219–245.
Ford, R., 2008. Complex Adaptive Systems and Improvisation Theory: Toward Framing a Model to enable Continuous Change. *Journal of Change Management*, 8 (3–4), 173–198.
Foucault, M., 1977–1995. *Discipline and punish: The birth of the prison*. Toronto: Vintage.
Foucault, M., 2005. *The Hermeneutics of the Subject: Lectures at the Collège de France, 1981–1982, trans*. New York, NY: Palgrave Macmillan.
Friedland, R. and Alford, R.R., 1991. Bringing Society Back In: Symbols, Practices, and Institutional Contradictions. *In*: W.W. Powell and P.J. DiMaggio, eds. *The New Institutionalism in Organizational Analysis*. Chicago, IL: University of Chicago Press, 232–267.
Gagnon, S. and Collinson, D., 2014. Rethinking global leadership development programmes: The interrelated significance of power, context and identity. *Organization Studies*, 35 (5), 645–670.
Gamwell, L. and Solms, M., 2006. *From neurology to psychoanalysis: Sigmund Freud's neurological drawings and diagrams of the mind*. New York, NY: Binghamton University Art Museum.
Garfinkel, H., 1967. *Studies in Ethnomethodology*. Hoboken, NJ: Wiley.
du Gay, P. and Lopdrup-Hjorth, T., 2016. Fear of the formal. *European Journal of Cultural and Political Sociology*, 3 (1), 6–40.
du Gay, P. and Vikkelsø, S., 2012. Reflections: On the lost specification of 'change'. *Journal of Change Management*, 12 (2), 121–143.
Gerstenberg, A., 1915. *Alice in Wonderland. A dramatization of Lewis Caroll's 'Alice's Adventures in Wonderland' and 'Through the Looking Glass'*. Chicago: A. C. Mc. Clurg & Co.
Gibson, J.J., 1977. *The theory of affordances, In" Perceiving, Acting and Knowing", Eds. RE Shaw and J. Bransford*. Erlbaum.
Goffman, E., 1956. *The presentation of self in everyday life*. Edinburgh: University of Edinburgh Social Sciences Research Centre.
Goffman, E., 1974. *Frame analysis: An essay on the organization of experience.* Boston, MA: Northeastern University Press.
Goleman, D., 2013. *Primal leadership: Unleashing the power of emotional intelligence*. Boston, MA: Harvard Business Press.
Gond, J.-P., Cabantous, L., Harding, N., and Learmonth, M., 2016. What Do We Mean by Performativity in Organizational and Management Theory? The Uses and Abuses of Performativity. *International Journal of Management Reviews*, 18 (4), 440–463.
Graham, S. and Thrift, N., 2007. Out of Order: Understanding Repair and Maintenance. *Theory, Culture & Society*, 24 (3), 1–25.
Hadot, P., 1995. *Philosophy as a way of life: Spiritual exercises from Socrates to Foucault*. Oxford: Wiley-Blackwell.
Halsall, R., 2016. The role of CEO (auto-) biographies in the dissemination of neo-ascetic leadership styles. *Leadership*, 12 (5), 515–537.

Halsall, R. and Brown, M., 2013. Askēsis and organizational culture. *Organization*, 20 (2), 233–255.
Hammer, M., 2017. The change agent challenge | McKinsey [online]. Available from: https://www.mckinsey.com/business-functions/operations/our-insights/the-change-agent-challenge [Accessed 18 May 2022].
Hansen, P.R. and Clausen, C., 2017. Management Concepts and the Navigation of Interessement Devices: The Key Role of Interessement Devices in the Creation of Agency and the Enablement of Organizational Change. *Journal of Change Management*, 17 (4), 344–366.
Hauge, A.M., 2016. The Organizational Valuation of Valuation Devices: Putting Lean whiteboard management to work in a hospital department. *Valuation Studies*, 4 (2), 125–151.
Hauge, A.M., 2018. Situated valuations: Affordances of management technologies in organizations. *Scandinavian Journal of Management*, 34 (3), 245–255.
Heidegger, M., 1954–1977. *The question concerning technology and other essays*. New York, NY: Garland Publishing.
Henderson, P.W. and Cote, J.A., 1998. Guidelines for Selecting or Modifying Logos. *Journal of Marketing*, 62, 14–30.
Hernes, T., Hendrup, E., and Schäffner, B., 2015. Sensing the Momentum: A Process View of Change in a Multinational Corporation. *Journal of Change Management*, 15 (2), 117–141.
Hersey, P., Blanchard, K.H., and Natemeyer, W.E., 1979. Situational Leadership, Perception, and the Impact of Power. *Group & Organization Studies*, 4 (4), 418–428.
Hertz, E., 2000. Stock markets as "simulacra": observation that participates. *Tsantsa*, 5, 40–50.
Holland, M., 2000. The Change Agent. *In*: B.J. Reid and W. Foster, eds. *Achieving cultural change in networked libraries*. Gower, 105–118.
Hughes, M., 2007. The Tools and Techniques of Change Management. *Journal of Change Management*, 7 (1), 37–49.
Hughes, M., 2011. Do 70 per cent of all organizational change initiatives really fail? *Journal of Change Management*, 11 (4), 451–464.
Huizinga, J., 1949. *Homo Ludens*. London: Routledge.
Hutchby, I., 2001. Technologies, texts and affordances. *Sociology*, 35 (2), 441–456.
Huy, Q.N., 2011. How middle managers' group-focus emotions and social identities influence strategy implementation. *Strategic Management Journal*, 32 (13).
Innovationsfonden, 2017. *Investeringsstrategi for Innovationsfonden 2017-2018 - Industri 4.0*.
Jackall, R., 1988. Moral mazes: The world of corporate managers. *International Journal of Politics, Culture, and Society*, 1 (4), 598–614.
Jarzabkowski, P., Giulietti, M., Oliveira, B., and Amoo, N., 2013. "We don't need no education"—Or do we? Management education and alumni adoption of strategy tools. *Journal of Management Inquiry*, 22 (1), 4–24.
Jarzabkowski, P. and Kaplan, S., 2008. Using strategy tools in practice: An exploration of 'technologies of rationaliy' in use. *Academy of Management Proceedings*, 2008 (1), 1–6.
Jarzabkowski, P. and Kaplan, S., 2015. Strategy tools-in-use: A framework for understanding "technologies of rationality" in practice. *Strategic Management Journal*, 36 (4), 537–558.
Jarzabkowski, P., Paul Spee, A., and Smets, M., 2013. Material artifacts: Practices for doing strategy with 'stuff'. *European Management Journal*, 31 (1), 41–54.
Jarzabkowski, P. and Pinch, T., 2013. Sociomateriality is 'the New Black': accomplishing repurposing, reinscripting and repairing in context. *M@n@gement*, Vol. 16 (5), 579–592.
Jarzabkowski, P. and Wilson, D.C., 2006. Actionable Strategy Knowledge:: A Practice Perspective. *European Management Journal*, 24 (5), 348–367.
Jefferson, G., 2004. Glossary of transcript symbols with an introduction. *In*: G.H. Lerner, ed. *Conversation Analysis Studies from the first generation*. Amsterdam: John Benjamins Publishing, 13–34.
Jensen, C.B., 2019. Is actant-rhizome ontology a more appropriate term for ANT? *In*: A. Blok, I. Farías, and C. Roberts, eds. *The Routledge Companion to Actor-Network Theory*. London: Routledge, 73–86.

John R. P. French, Jr., 1945. Role-Playing as a Method of Training Foremen. *Sociometry*, 8 (3/4), 172–187.
Johnson, R.J., 2014. Another Use of the Concept of the Simulacrum: Deleuze, Lucretius and the Practical Critique of Demystification. *Deleuze Studies*, 8 (1), 70–93.
Johnston, J.L., Kearney, G.P., Gormley, G.J., and Reid, H., 2020. Into the uncanny valley: Simulation versus simulacrum? *Medical Education*, 54 (10), 903–907.
Justesen, L., 2020. Actor-network Theory as Analytical Approach. *In*: M. Järvinen and N. Mik-Meyer, eds. *Qualitative Analysis: Eight Approaches for the Social Sciences*. Thousand Oaks, CA: SAGE Publications, 329–343.
Justesen, L. and Mouritsen, J., 2009. The triple visual: Translations between photographs, 3-D visualizations and calculations. *Accounting, Auditing & Accountability Journal*, 22 (6), 973–990.
Kaplan, S., 2011. Strategy and PowerPoint: An inquiry into the epistemic culture and machinery of strategy making. *Organization Science*, 22 (2), 320–346.
Kirkpatrick, D. and Kirkpatrick, J., 2006. *Evaluating training programs: The four levels*. Berrett-Koehler Publishers.
Klossowski, P., 1963. A propos du simulacre dans la communication de Georges Bataille. *Critique*, 195, 742–50.
Knorr Cetina, K., 1999. *Epistemic cultures: How the sciences make knowledge*. Cambridge, MA: Harvard University Press.
Kornberger, M. and Clegg, S., 2011. Strategy as performative practice The case of Sydney 2030. *Strategic Organization*, 9 (2), 136–162.
Kotter, J.P., 1995. Leading change: Why transformation efforts fail. *Harvard Business Review*, 73 (2), 59–67.
Kotter, J.P., 1996. *Leading change*. Boston, MA: Harvard Business Review Press.
Kotter, J.P., 2014. *Xlr8*. Cambridge, MA: Harvard Business School Press.
Krafcik, J., 2013. Krafcik [online]. Available from: https://www.youtube.com/watch?v=n57rWB5csuI&t=1146s [Accessed 19 Sep 2020].
Krafcik, J.F., 1988. Triumph of the lean production system. *MIT Sloan Management Review*, 30 (1), 41.
Kuhn, T.S., 1962–1970. *The structure of scientific revolutions*. Chicago, IL: Chicago University of Chicago Press.
Kvale, S. and Brinkmann, S., 2009. *Interview: introduktion til et håndværk*. Copenhagen: Hans Reitzels Forlag.
Lalonde, C. and Gilbert, M.-H., 2016. Dramaturgical awareness of consultants through the rhetoric and rituals of cooperation. *Journal of Organizational Change Management*.
Langstrand, J., 2012. Exploring organizational translation: a case study of changes toward Lean Production. Linköping University Electronic Press, Linköping.
Langstrand, J. and Elg, M., 2012. Non-human resistance in changes towards lean. *Journal of Organizational Change Management*, 2012.
Larsson, M. and Lundholm, S.E., 2013. Talking work in a bank: A study of organizing properties of leadership in work interactions. *Human Relations*, 66 (8), 1101–1129.
Latour, B., 1984. The Powers of Association. *The Sociological Review*, 32, 264–280.
Latour, B., 1986. Visualization and cognition. *Knowledge and society*, 6 (6), 1–40.
Latour, B., 1992. Where are the Missing Masses? The Sociology of a Few Mundane Artifacts. Shaping technology/building society: studies in sociotechnical change. WE Bijker and J. Law. *In*: W. Bijker and J. Law, eds. *WE Bijker, J. Law, & American Council of Learned Societies (Eds.), Shaping technology/building society: studies in sociotechnical change*. Cambridge, MA: The MIT Press, 225–258.
Latour, B., 1993. *We have never been modern*. Cambridge, MA: Harvard University Press.
Latour, B., 1994. On technical mediation. *Common knowledge*, 3 (2), 29–64.
Latour, B., 1996. On actor-network theory: A few clarifications. *Soziale Welt*, 47 (4), 369–381.
Latour, B., 1999a. *Pandora's hope: essays on the reality of science studies*. Harvard university press.
Latour, B., 1999b. On recalling ANT. *The sociological review*, 47 (1), 15–25.

Latour, B., 2004. How to talk about the body? The normative dimension of science studies. *Body & society*, 10 (2–3), 205–229.
Latour, B., 2005. *Reassembling the social: An introduction to actor-network-theory*. Oxford: Oxford university press.
Latour, B., 2017. On Actor-Network Theory. A Few Clarifications, Plus More Than a Few Complications. *Philosophical Literary Journal Logos*, 27 (1), 173–197.
Latour, B. and Woolgar, S., 1979. *Laboratory life, the construction of scientific facts*. Princeton, NJ: Princeton University Press.
Lave, J. and Wenger, E., 1991. *Situated learning: Legitimate peripheral participation*. Cambridge.
Law, J., 2002. Economics as interference. *Cultural economy: Cultural analysis and commercial life*, 21–38.
Lewin, K., 1945. *Resolving social conflicts and field theory in social science.* NY: Harper & Brothers.
Lewin, K., 1947a. Frontiers in group dynamics: II. Channels of group life; social planning and action research. *Human relations*, 1 (2), 143–153.
Lewin, K., 1947b. Frontiers in group dynamics: Concept, method and reality in social science; social equilibria and social change. *Human relations*, 1 (1), 5–41.
Lewin, K., 1951. *Field theory in social science: selected theoretical papers*. New York, NY: Harper & Brothers.
Lezaun, J. and Calvillo, N., 2014. In the Political Laboratory: Kurt Lewin's Atmospheres. *Journal of Cultural Economy*, 7 (4), 434–457.
Lezaun, J. and Muniesa, F., 2017. Twilight in the leadership playground: subrealism and the training of the business self. *Journal of Cultural Economy*, 10 (3), 265–279.
Lezaun, J., Muniesa, F., and Vikkelsø, S., 2013. Provocative containment and the drift of social-scientific realism. *Journal of Cultural Economy*, 6 (3), 278–293.
Lorino, P., 2018. *Pragmatism and Organization Studies*. Oxford: Oxford University Press.
Lynch, M., 2013. Ontography: Investigating the production of things, deflating ontology. *Social Studies of Science*, 43 (3), 444–462.
Lyotard, 1971–2011. *Discourse, Figure*. Minneapolis, MN: Minnesota Press.
Lyotard, J.-F., 1979–1984. *The Postmodern Condition: A Report on Knowledge*. 1st edition. Minneapolis: University Of Minnesota Press.
Macho, T., 2013. Second-Order Animals: Cultural Techniques of Identity and Identification. *Theory, Culture & Society*, 30 (6), 30–47.
Macintosh, N.B., Shearer, T., Thornton, D.B., and Welker, M., 2000. Accounting as simulacrum and hyperreality: perspectives on income and capital. *Accounting, organizations and society*, 25 (1), 13–50.
MacKenzie, D., 2008. *An engine, not a camera: How financial models shape markets*. Cambridge, MA: The MIT Press.
March, J.G., 2006. Rationality, foolishness, and adaptive intelligence. *Strategic Management Journal*, 27 (3), 201–214.
Marres, N., 2019. As ANT is getting undone, can Pragmatism help us re-do it? *The Routledge Companion to Actor-Network Theory*, 112–120.
Maurer, R., 1996. *Beyond the wall of resistance: Unconventional strategies that build support for change*. Portland, OR: Bard Austin.
McKinsey, 2021. How do we manage the change journey? | McKinsey [online]. Available from: https://www.mckinsey.com/business-functions/organization/our-insights/how-do-we-manage-the-change-journey [Accessed 17 Feb 2021].
Meyer, R.E., Höllerer, M.A., Jancsary, D., and van Leeuwen, T., 2013. The visual dimension in organizing, organization, and organization research: Core ideas, current developments, and promising avenues, 2013, 489–555.
Miller, P. and Rose, N., 1994. On Therapeutic Authority: Psychoanalytical Expertise under Advanced Liberalism. *History of the Human Sciences*, 7 (3), 29–64.

Millo, Y. and MacKenzie, D., 2009. The usefulness of inaccurate models: Towards an understanding of the emergence of financial risk management. *Accounting, Organizations and Society*, 34 (5), 638–653.
Mintzberg, H., 1973. *The nature of managerial work*. New York, NY: Harper & Row.
Mol, A., 2002. *The body multiple: Ontology in medical practice*. Durham, NC: Duke University Press.
Mol, A., 2010. Actor-network theory: Sensitive terms and enduring tensions. *Kölner Zeitschrift für Soziologie und Sozialpsychologie. Sonderheft*, 50, 253–269.
Morris, J., 2021. Simulacra in the Age of Social Media: Baudrillard as the Prophet of Fake News. *Journal of Communication Inquiry*, 45 (4), 319–336.
Moussa, L., Garcia-Cardenas, V., and Benrimoj, S.I., 2019. Change Facilitation Strategies Used in the Implementation of Innovations in Healthcare Practice: A Systematic Review. *Journal of Change Management*, 0 (0), 1–19.
Muniesa, F., 2011. A flank movement in the understanding of valuation. *The Sociological Review*, 59 (s2), 24–38.
Muniesa, F., 2014. *The Provoked Economy*. London: Routledge.
Muniesa, F., 2015. Actor-Network Theory. *In*: J.D. Wright, ed. *International Encyclopedia of the Social & Behavioral Sciences (Second Edition)*. Oxford: Elsevier, 80–84.
Muniesa, F., 2016. Setting the Habit of Capitalization: The Pedagogy of Earning Power at the Harvard Business School, 1920-1940. *Historical Social Research / Historische Sozialforschung*, 41 (2 (156)), 196–217.
Muniesa, F., 2017. The live act of business and the culture of realization. *HAU: Journal of Ethnographic Theory*, 7 (3), 347–362.
Muniesa, F., 2018. Grappling with the performative condition. *Long Range Planning*, 51 (3), 495–499.
Muniesa, F., 2020. Business Education and Anxiety in the Performance of Value. *In*: D. Stark, ed. *The Performance Complex: Competition and Competitions in Social Life*. Oxford: Oxford University Press, 260–270.
Muniesa, F. and Trébuchet-Breitwiller, A.-S., 2010. Becoming a Measuring Instrument. *Journal of Cultural Economy*, 3 (3), 321–337.
Novozymes, 2021. Novozmyes Financial Report - Roadshow presentation 12M 2020 [online]. Available from: https://s21.q4cdn.com/655485906/files/doc_financials/2020/q4/2020_Q4_Novozymes_Roadshow-presentation.pdf [Accessed 11 Feb 2021].
OED, O.E.D., 2021. simulacrum | Origin and meaning of simulacrum by Online Etymology Dictionary [online]. Available from: https://www.etymonline.com/word/simulacrum [Accessed 10 Mar 2021].
Olsen, E.L., Wåhlin-Jacobsen, C.D., and Abildgaard, J.S., 2020. Reconceptualizing Job Control in Participatory Interventions – Collective Sensemaking as a Missing Link. *Nordic Journal of Working Life Studies*, 1–18.
Olsen, O., Albertsen, K., Nielsen, M.L., Poulsen, K.B., Gron, S.M.F., and Brunnberg, H.L., 2008. Workplace restructurings in intervention studies–a challenge for design, analysis and interpretation. *BMC Medical Research Methodology*, 8 (1), 1–11.
Orlikowski, W.J., 2009. The sociomateriality of organisational life: considering technology in management research. *Cambridge journal of economics*, 34 (1), 125–141.
Orlikowski, W.J. and Scott, S.V., 2008. 10 Sociomateriality: Challenging the Separation of Technology, Work and Organization. *Academy of Management Annals*, 2 (1), 433–474.
Ossandón, J., 2019. How to Write after Performativity? *In*: A. Blok, I. Farias, and C. Roberts, eds. *The Routledge Companion to Actor-network Theory*. London: Routledge, 46–55.
Oswick, C. and Robertson, M., 2009. Boundary objects reconsidered: From bridges and anchors to barricades and mazes. *Journal of Change Management*, 9 (2), 179–193.
Pedersen, M. and Dunne, S., 2020. Dewey's Broad Account of Habit and its Relevance for Change Management: A Conceptual Clarification with Pragmatic Illustrations. *Journal of Change Management*, 20 (3), 247–263.

Peirce, C.S., 1991. *Peirce on Signs: Writings on Semiotic by Charles Sanders Peirce*. Chapel Hill, NC: University of North Carolina Press.
Pettigrew, A. and Whipp, R., 1993. *Managing Change for Competitive Success*. Oxford: Wiley-Blackwell.
Pias, C., 2017. *Computer Game Worlds*. Zürich: Diaphanes.
Pierce, C.S., 1978. Pragmatism and Abduction. I: C. Hartshorne & P. Weiss (Eds.) Collected papers, Vol V: 180-212. *In*: C. Hartshorne and P. Weiss, eds. *Collected papers*. Cambridge, MA: Harvard University Press.
Possati, L.M., 2020. Algorithmic unconscious: why psychoanalysis helps in understanding AI. *Palgrave Communications*, 6 (1), 1–13.
Price, P.C., Jhangiani, R.S., Chiang, I.A., Leighton, D.C., and Cuttler, C., 2017. *Research methods in psychology (3rd american edition)*. Press books.
Quinn, J.B., 1989. Managing strategic change. *In*: *Readings in strategic management*. Springer, 20–36.
Randall, J. and Procter, S., 2008. Ambiguity and ambivalence: Senior managers' accounts of organizational change in a restructured government department. *Journal of Organizational Change Management*, 21 (6), 686–700.
Rorschach, H., Rorschach, H., and Oberholzer, E., 1942–1951. *The application of the Form Interpretation Test.* Bern, Switzerland: Verlag Hans Huber.
Rorty, R., 1991. *Objectivity, Relativism, and Truth: Volume 1: Philosophical Papers*. Cambridge, UK: Cambridge University Press.
Rose, N., 1998. *Inventing our selves: Psychology, power, and personhood*. Cambridge, UK: Cambridge University Press.
Rosenbaum, D., More, E., and Steane, P., 2018. Planned organisational change management. *Journal of Organizational Change Management*, Vol. 31 (No. 2), 286–303.
Rother, M. and Shook, J., 2003. *Learning to see: value stream mapping to add value and eliminate muda*. Boston, MA: Lean Enterprise Institute.
Sacks, H., 1992. Harvey Sacks: lectures on conversation. *Malden, MA: Blackwell Publishing*.
Schatzki, T.R., Knorr-Cetina, K., and Von Savigny, E., 2001. *The practice turn in contemporary theory*. London: Routledge.
Schein, E.H., 2010. *Organizational culture and leadership*. 4. ed. Jossey-Bass.
Semmer, N.K., 2003. Job stress interventions and organization of work. *Handbook of occupational health psychology.*, 325–353.
Shaw, P., 1997. Intervening in the shadow systems of organizations: Consulting from a complexity perspective. *Journal of Organizational Change Management*, 10 (3), 235–250.
Sloterdijk, P., 2009–2013. *You Must Change Your Life*. 1 edition. Cambridge: Polity.
Smith, D.W., 2005. Klossowski's Reading of Nietzsche: Impulses, Phantasms, Simulacra, Stereotypes. *Diacritics*, 35 (1), 8–21.
Smith, D.W., 2006. The concept of the simulacrum: Deleuze and the overturning of Platonism. *Continental Philosophy Review*, 38 (1–2), 89–123.
Spee, A.P. and Jarzabkowski, P., 2009. Strategy tools as boundary objects. *Strategic Organization*, 7 (2), 223–232.
Spoelstra, S., 2016. Leadership and Religion. *In*: J. Hartley, J.-L. Denis, P. Hart, and D. Ulrich, eds. *The Routledge Companion to Leadership*. Taylor & Francis, 319–331.
Stacey, R., 2002. Organizations as complex responsive processes of relating. *Journal of Innovative Management*, 8 (2), 37–39.
Star, S.L., 1990. Power, technology and the phenomenology of conventions: on being allergic to onions. *The Sociological Review*, 38 (1_suppl), 26–56.
Star, S.L. and Strauss, A., 1999. Layers of silence, arenas of voice: The ecology of visible and invisible work. *Computer supported cooperative work (CSCW)*, 8 (1), 9–30.
Suchman, L., 1987–2007. *Human-machine reconfigurations: Plans and situated actions*. Cambridge: Cambridge University Press.
Suchman, L., 2012. Configuration. *In*: C. Lury and N. Wakeford, eds. *Inventive methods - The happening of the social*. New York, NY: Routledge, 62–74.

Suchman, L., 2016. Configuring the Other: Sensing War through Immersive Simulation. *Catalyst: Feminism, Theory, Technoscience*, 2 (1), 1–36.
Suchman, L., 2020. Agencies in Technology Design: Feminist Reconfigurations*. *In*: W. Wallach and P. Asaro, eds. *Machine Ethics and Robot Ethics*. Routledge, 361–375.
Sveningsson, S. and Larsson, M., 2006. Fantasies of leadership: Identity work. *Leadership*, 2 (2), 203–224.
Taylor, F.W., 1911. *The principles of scientific management*. New York, NY: Harper & Brothers Publishers.
Tellioğlu, H. and Wagner, I., 2001. Work Practices Surrounding PACS: The Politics of Space in Hospitals. *Computer Supported Cooperative Work (CSCW)*, 10 (2), 163–188.
Thornton, P.H. and Ocasio, W., 1999. Institutional Logics and the Historical Contingency of Power in Organizations: Executive Succession in the Higher Education Publishing Industry, 1958– 1990. *American Journal of Sociology*, 105 (3), 801–843.
Todnem By, R., 2005. Organisational change management: A critical review. *Journal of Change Management*, 5 (4), 369–380.
Trist, E., 1981. The evolution of socio-technical systems. *Occasional paper*, 2, 1981.
Tryggestad, K., Justesen, L., and Mouritsen, J., 2013. Project temporalities: how frogs can become stakeholders. *International journal of managing projects in business*, 6 (1), 69–87.
Tsoukas, H., 1998. The word and the world: a critique of representationalism in management research. *International Journal of Public Administration*, 21 (5), 781–817.
Tsoukas, H. and Chia, R., 2002. On organizational becoming: Rethinking organizational change. *Organization science*, 13 (5), 567–582.
Turner, V., 1969. *The Ritual Process: Structure and Anti-structure*. Ithaca, NY: Cornell University Press.
Uhl-Bien, M., Marion, R., and McKelvey, B., 2007. Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *The leadership quarterly*, 18 (4), 298–318.
Vikkelsø, S. and Langstrup, H., 2014. Aktør-Netværksteori og STS. *In*: S. Vikkelsø and P. Kjær, eds. *Klassisk og moderne organisationsteori*. Hans Reitzel.
Waterman, R.H. and Peters, T.J., 1982. *In search of excellence: Lessons from America's best-run companies*. New York: Harper & Row.
Weick, K.E., 1969. Social psychology in an era of social change. *American Psychologist*, 24 (11), 990–998.
Weick, K.E., 1999. That's Moving Theories that Matter. *Journal of Management Inquiry*, 8 (2), 134–142.
Weick, K.E. and Quinn, R.E., 1999. Organizational change and development. *Annual review of psychology*, 50 (1), 361–386.
Whitney, D. and Cooperrider, D., 2005. *Appreciative inquiry: A positive revolution in change*. San Francisco, CA: Berrett-Koehler Publishers.
Whittington, R., 2006. Completing the Practice Turn in Strategy Research. *Organization Studies*, 27 (5), 613–634.
Wittgenstein, L., 1922. *Tractatus Logico-Philosophicus*. Edinburgh: The Edinburgh Press.
Wittgenstein, L., 1953. *Philosophical investigations*. Hoboken, NJ: John Wiley & Sons.
Womack, J.P. and Jones, D.T., 2003. *Lean thinking: banish waste and create wealth in your corporation*. New York, NY: Simon and Schuster.
Womack, J.P., Jones, D.T., and Roos, D., 1990. *Machine that changed the world*. New York, NY: Simon and Schuster.
Workz, 2017. Wallbreakers™ | Workz [online]. Available from: https://workz.dk/products/wallbreakers [Accessed 22 Aug 2017].
Zaleznik, A., 1977. Managers and leaders: Are they different? *Harvard Business Review*, 15 (3), 47–84.
Zoller, H.M. and Fairhurst, G.T., 2007. Resistance leadership: The overlooked potential in critical organization and leadership studies. *Human Relations*, 60 (9), 1331–1360.
Zuiderent-Jerak, T., 2015. *Situated intervention: Sociological experiments in health care*. Cambridge, MA: MIT Press.

English summary

This dissertation is about change management tools and how they effects on change managers. Research on change managers and change management tools is well represented in the change management literature but a dedicated focus the tool-manager relationship seems missing. This is a shame as this particular focus can shed new light on questions on both the processes of becoming a change manager and reveal new caveats of the mechanisms through which change management tools function. Of practical relevance, the dissertation engages with ongoing discussions on the expected returns from change management tools, which tends to corner in either undocumented bloated promises or fundamental skepticism that hinders more nuanced discussions and investigations. In striving to find a middle ground between these poles, exploring the theme through empirically grounded qualitative studies becomes increasingly relevant. For doing my study, I gather inspiration from performativity literature, which I use in the dissertation's three case studies, to analyze the design and operations of two different types of change management tools. The game based change management education program, Wallbreakers, and the Lean based supply chain optimization workshop format, the Rapid Improvement Event. The study situates in a Lean transformation in the Danish biotech company, Novozymes, which deployed a game based change management education to strengthen the change process. This case lends itself well to the current investigation, as it allows for studying both a tool-based attempt at shaping change managers, but also change managers' tool-based attempts at managing organizational change. I have divided the dissertation into 5 chapters. Chapter 1 presents the introduction laid out above and further provides a review on the current research on change managers and change management tools.

Chapter 2 presents the dissertation's conceptual framework, which I use to guide my analyses. The framework consists of 4 concepts derived from the performativity literature. The core concept is the performative simulacrum, which I supplement with the concepts of; the figural, framing and elevation. I have chosen these particular concepts based on their usefulness for studying the visualizing and metaphorizing properties of change management tools, which is central to the subject matter. In unique ways, the concepts inspire new ways of thinking about the *doing* of change management tools, and thus helps locating the ways in which change management tools affect change managers and partake in the broader constitution of change management.

Chapter 3 presents the dissertation's methodology. The dissertation draws on different sources of qualitative data; readings of tool materials, ethnographic observations, video and audio recordings of tools in action plus interviews. The chapter introduces the specific methods used for gathering and analyzing the articles' data. Describing the commonality and differences of the different applied methods used throughout the articles, I introduce a metaphorical notion of having enacted different research personae. I

coin the research personae; the reassembler, the detective and the practice consultant. I have primarily grounded my methodology in my conceptual framework coupled with certain methodological principles gathered from the broader literature on performativity and actor network-theory. This provides a methodological consistency across the studies while the enactment of the three different research personae enabled me to fit my analytical operations to the needs of the specific studies.

Chapter 4 contains the dissertation's three articles. The first article is called 'The figural space of the business simulacrum: Examining an educative change management simulation'. The article studies the design of Wallbreakers and identifies the principles for its assemblage. The article further considers provocation a key vehicle for the game's transformative potentials. The second article is called 'Elevating managers- Investigating the performativity of simulacra in management education'. The article studies the changes to the change managers that occur through their participation in Wallbreakers. It shows how the workshops boost the participants' sense of competence, but also that it leads them to engage in humbling problematizations of their situation while making them formulate and pursue new idealized change management goals. The third article is called 'The epistemic uncertainty of change management tools: Overcoming resistance through framing work'. The article studies how change managers overcome resistance to change management tools. The article shows how change management tools can breed a certain type of resistance related to epistemic uncertainty, provoked by the reality rendering change management tools. The article further shows that change managers deploy situated strategies of framing work for overcoming this particular type of resistance as they attempt to alternate the frames in which workshop participants interpret the tools.

Chapter 5 presents the dissertation's concluding discussion and provides answers to the dissertation's sub-questions and the main research question. A significant conclusion is that change management tools tie the change manager to the change management network bridging theory and practice. As such, tools provide change managers with both normative suggestions and common understandings of organizational change and the craft of change management. The flipside of change management tools is the obscurity which tools also create, as tools provide utility in return of neglected nuances of their source materials. Overall, the dissertation shows that tools affect change managers in multiple ways. Tools provoke change management articulations, enable an elevated sense of competence, suggest improbable ideals and produce additional work. The chapter ends with an explication of the dissertation's contributions to change management research, performativity literature and change management practice. My hope with the dissertation is to bring about a renewed recognition of change management tools and the need for studying them nuancedly, as they are an ingrained part of the change management network and unavoidable when engaging with change management practice.

Dansk resume

Denne afhandling handler of forandringsledelsesværktøjer og hvordan de påvirker forandringsledere. Forsknings i forandringsledere og forandringsledelseværktøjer er allerede velrepræsenteret i litteraturen men et dedikeret fokus på relationen mellem forandringsledelseværktøj og forandringsleder ser ud til at mangle. Det er en skam, for dette særlige fokus kan kaste nyt lys på hvordan forandringsledere bliver til, samt vise nye sider af hvordan forandringsledelseværktøjer fungerer. Afhandlingens praksisrelevans knytter sig særligt til diskussionerne om forandringsledelsesværktøjers forventede afkast og funktionalitet. Desværre ender diskussioner om disse temaer ofte i ekstreme poler, mellem opblæste udokumenterede løfter og fundamental skepsis, der forhindrer mere nuancerede diskussioner og undersøgelser. Det synes mere og mere relevant at undersøge forholdet mellem forandringsledere og forandringsledelsesværktøjer gennem empirisk funderede kvalitative studier i en stræben efter en større nuancering af vores forståelse. Til at lave mine analyser af design og effekterne af to forskellige forandringsledelseværktøjer har jeg fundet inspiration i performativitets-litteraturen, som jeg anvender på forskellig vis i afhandlingens tre artikler. De forandringsledelsesværktøjer jeg undersøger er; det spilbaserede undervisningsprogram, Wallbreakers, og det Lean-baserede forsyningskædeoptimerende workshop format, Rapid Improvement Event. Undersøgelsen er situeret i Lean transformationen i den danske biotech virksomhed, Novozymes, hvor et spilbaseret forandringsledelsesundervisningsprogram blev brugt til at styrke forandringsprocessen. Denne case tilbyder et oplagt afsæt for afhandlingens undersøgelse, da den både muliggør undersøgelsen af værktøjsbaserede forsøg på at skabe forandringsledere, samt forandringslederes værktøjsbaserede forsøg på at orkestrere organisationsforandringer. Jeg har inddelt afhandlingen i 5 kapitler. Kapitel 1 præsenterer introduktionen som jeg har udlagt ovenfor, og præsenterer endvidere en gennemgang af den nuværende forskning i forandringsledere og forandringsledelsesværktøjer.

Kapitel 2 præsenterer afhandlingens konceptuelle ramme, som jeg bruger til at guide mine analyser. Den konceptuelle ramme består af 4 koncepter hentet fra performativitets-litteraturen. Kernekonceptet er det performative simulacrum, som jeg supplerer med koncepterne; det figurale, rammesætning og elevation. Jeg har valgt disse specifikke koncepter på baggrund af deres brugbarhed i forhold til at undersøge forandringsledelsesværtøjers visualiserende og metaforisernde kvaliteter, som viser sig at være centralt for afhandlingens forskningsgenstand. På hver sine unikke måder inspirerer koncepterne til nye måder at tænke på om forandringsledelsesværtøjernes *gøren*, og som på den måde hjælper med at lokalisere måder hvorpå forandringsledelsesværktøjer påvirker forandringsledere og bidrager til konstitueringen af forandringsledelse som sådan.

Kapitel 3 præsenterer afhandlingens metodik. Afhandlingen trækker på forskellige kilder af kvalitative data; læsning af værtkøjsmaterialer, etnografiske observationer, video- og lydoptagelser plus interviews.

Kapitlet beskriver de specifikke metoder hvormed jeg har indhentet og analyseret mine data. Som en måde at beskrive ligheder og forskelle mellem metoderne, som jeg har benyttet mig af på tværs af de 3 artiklerne, introducerer jeg en metafor af at have performet forskellige forsknings-personaer. Jeg har navngivet disse; 'genmontereren', 'detektiven' og 'praksiskonsulenten'. Jeg har primært fæstnet min metodik i den konceptuelle ramme, men jeg trækker også på visse metodiske principper fra den bredere litteratur indenfor performativitet og aktør-netværksteori. Dette skaber en metodisk konsistens på tværs af artiklerne mens min performance af de tre forsknings-personer har muliggjort at mine analytiske metoder har været tilpasset de specifikke undersøgelser.

Kapitel 4 indeholder afhandlingens tre artikler. Den første artikel hedder 'Virksomheds-simulacrummets figurale rum: En undersøgelse af en oplærende forandringsledelsessimulation'. Artiklen undersøger hvordan Wallbreakers er blevet designet og identificerer princippernes for dets sammentømring. I artiklerne foreslår jeg at se på spillets provokationer som værende en af nøglerne til at til at forstå dets transformative potentialer. Den næste artikel hedder 'Eleverede ledere: En undersøgelse af simulacras performativitet i ledertræning'. Artiklen undersøger de forandringer der sker ved forandringsledere i deres møde med Wallbreakers. Artiklen viser hvordan workshopperne leder til både et løft i deltagernes oplevede kompetence men også til mere ydmyge problematiseringer af forandringsledernes situation, men også skabelse af- og tiltrækning mod - nye idealiserede forandringsledelsesmål. Den tredje artikel hedder 'Forandringsværktøjernes epistemiske usikkerhed: At overkomme modstand gennem rammesætningsarbejde'. Artiklen undersøger hvordan forandringsledere overkommer modstand mod forandringsledelsesværktøjer. Artiklen viser hvordan forandringsledelsesværktøjer kan afføde en særlig type modstand relateret til epistemisk usikkerhed, som provokeres af virkelighedsfremstillende forandringsledelsesværktøjer. Artiklen viser hvordan forandringsledere laver rammesætningsarbejde, situerede forsøg på at påvirke rammen hvori værtøjet fortolkes, i deres forsøg på at overkomme modstanden mod værktøjerne.

Kapitel 5 præsenterer afhandlingens afsluttende diskussion, og giver svar på afhandlingens delspørgsmål samt hovedspørgsmålet. En væsentlig konklusion er, at forandringsledelsesværktøjer binder forandringslederen til forandringsledelsesnetværket, hvormed der bygges bro mellem teori og praksis. Forandringsledelsesværktøjer giver både forandringsledere en generel forståelse af forandringsledelse og organisationsforandring samt normative forslag til at forstå og udføre forandringsledelseshåndværket. Bagsiden af medaljen er den uklarhed som forandringsledelsesværktøjer også skaber, da værktøjernes nytte kommer på bekostning af et væld af nuancer fra værktøjernes inspirationsmateriale, som er blevet negligeret i deres skabelsesproces. Samlet set viser afhandlingen, at værktøjer påvirker forandringsledere på flere måder. Værktøjer fremprovokerer forandringsledelsesartikulationer, foreslår forfølgelsen af svært realiserbare forandringsledelsesidealer, muliggør en følelse af kompetenceløft men producerer også ekstra arbejde. Kapitlet afsluttes med en redegørelse for afhandlingens bidrag til forandringsledelsesforskningen, performativitets-litteraturen og forandringsledelsespraksis. Mit håb med afhandlingen er at skabe en fornyet anerkendelse af forandringsledelsesværktøjer og en forståelse for behovet for at studere dem på mere nuanceret vis, da de er blevet en indgroet del af hvad forandringsledelse er og er helt uundgåelige når man beskæftiger sig med forandringsledelsespraksis.

Executive summary

This dissertation studies how change management tools affect change managers. Across three articles the dissertation show how designers assemble change management tools and what happens when change managers engage with the tools. The dissertation shows how change management tools tie change managers to common notions of knowing and performing organizational change, which affects both what they feel inclined to do, but also how they understand themselves and their situations. Change management tools are shown to affect change managers by provoking new articulations, providing increased sense of competence, while also making managers strive for realizing improbable change management ideals. Lastly, the dissertation shows how change management tools produce additional work for the change manager. Among other things, the dissertation contributes to the study of change management by revealing new ways of thinking about tools' functions. The dissertation contributes to practice by providing nuanced descriptions change management tools' operations, offering alternative takes on what organizations should expect when mobilizing change management tools.

TITLER I PH.D.SERIEN:

2004

1. Martin Grieger
Internet-based Electronic Marketplaces and Supply Chain Management

2. Thomas Basbøll
LIKENESS
A Philosophical Investigation

3. Morten Knudsen
Beslutningens vaklen
En systemteoretisk analyse of moderniseringen af et amtskommunalt sundhedsvæsen 1980-2000

4. Lars Bo Jeppesen
Organizing Consumer Innovation
A product development strategy that is based on online communities and allows some firms to benefit from a distributed process of innovation by consumers

5. Barbara Dragsted
SEGMENTATION IN TRANSLATION AND TRANSLATION MEMORY SYSTEMS
An empirical investigation of cognitive segmentation and effects of integrating a TM system into the translation process

6. Jeanet Hardis
Sociale partnerskaber
Et socialkonstruktivistisk casestudie af partnerskabsaktørers virkelighedsopfattelse mellem identitet og legitimitet

7. Henriette Hallberg Thygesen
System Dynamics in Action

8. Carsten Mejer Plath
Strategisk Økonomistyring

9. Annemette Kjærgaard
Knowledge Management as Internal Corporate Venturing
– a Field Study of the Rise and Fall of a Bottom-Up Process

10. Knut Arne Hovdal
De profesjonelle i endring
Norsk ph.d., ej til salg gennem Samfundslitteratur

11. Søren Jeppesen
Environmental Practices and Greening Strategies in Small Manufacturing Enterprises in South Africa
– A Critical Realist Approach

12. Lars Frode Frederiksen
Industriel forskningsledelse
– på sporet af mønstre og samarbejde i danske forskningsintensive virksomheder

13. Martin Jes Iversen
The Governance of GN Great Nordic
– in an age of strategic and structural transitions 1939-1988

14. Lars Pynt Andersen
The Rhetorical Strategies of Danish TV Advertising
A study of the first fifteen years with special emphasis on genre and irony

15. Jakob Rasmussen
Business Perspectives on E-learning

16. Sof Thrane
The Social and Economic Dynamics of Networks
– a Weberian Analysis of Three Formalised Horizontal Networks

17. Lene Nielsen
Engaging Personas and Narrative Scenarios – a study on how a user-centered approach influenced the perception of the design process in the e-business group at AstraZeneca

18. S.J Valstad
Organisationsidentitet
Norsk ph.d., ej til salg gennem Samfundslitteratur

19. Thomas Lyse Hansen
Six Essays on Pricing and Weather risk in Energy Markets

20. Sabine Madsen
Emerging Methods – An Interpretive Study of ISD Methods in Practice

21. Evis Sinani
The Impact of Foreign Direct Investment on Efficiency, Productivity Growth and Trade: An Empirical Investigation

22. Bent Meier Sørensen
Making Events Work Or, How to Multiply Your Crisis

23. Pernille Schnoor
Brand Ethos
Om troværdige brand- og virksomhedsidentiteter i et retorisk og diskursteoretisk perspektiv

24. Sidsel Fabech
Von welchem Österreich ist hier die Rede?
Diskursive forhandlinger og magtkampe mellem rivaliserende nationale identitetskonstruktioner i østrigske pressediskurser

25. Klavs Odgaard Christensen
Sprogpolitik og identitetsdannelse i flersprogede forbundsstater
Et komparativt studie af Schweiz og Canada

26. Dana B. Minbaeva
Human Resource Practices and Knowledge Transfer in Multinational Corporations

27. Holger Højlund
Markedets politiske fornuft
Et studie af velfærdens organisering i perioden 1990-2003

28. Christine Mølgaard Frandsen
A.s erfaring
Om mellemværendets praktik i en transformation af mennesket og subjektiviteten

29. Sine Nørholm Just
The Constitution of Meaning – A Meaningful Constitution?
Legitimacy, identity, and public opinion in the debate on the future of Europe

2005

1. Claus J. Varnes
Managing product innovation through rules – The role of formal and structured methods in product development

2. Helle Hedegaard Hein
Mellem konflikt og konsensus – Dialogudvikling på hospitalsklinikker

3. Axel Rosenø
Customer Value Driven Product Innovation – A Study of Market Learning in New Product Development

4. Søren Buhl Pedersen
Making space
An outline of place branding

5. Camilla Funck Ellehave
Differences that Matter
An analysis of practices of gender and organizing in contemporary workplaces

6. Rigmor Madeleine Lond
Styring af kommunale forvaltninger

7. Mette Aagaard Andreassen
Supply Chain versus Supply Chain Benchmarking as a Means to Managing Supply Chains

8. Caroline Aggestam-Pontoppidan
From an idea to a standard
The UN and the global governance of accountants' competence

9. Norsk ph.d.

10. Vivienne Heng Ker-ni
An Experimental Field Study on the

Effectiveness of Grocer Media Advertising
Measuring Ad Recall and Recognition, Purchase Intentions and Short-Term Sales

11. Allan Mortensen
Essays on the Pricing of Corporate Bonds and Credit Derivatives

12. Remo Stefano Chiari
Figure che fanno conoscere
Itinerario sull'idea del valore cognitivo e espressivo della metafora e di altri tropi da Aristotele e da Vico fino al cognitivismo contemporaneo

13. Anders McIlquham-Schmidt
Strategic Planning and Corporate Performance
An integrative research review and a meta-analysis of the strategic planning and corporate performance literature from 1956 to 2003

14. Jens Geersbro
The TDF – PMI Case
Making Sense of the Dynamics of Business Relationships and Networks

15 Mette Andersen
Corporate Social Responsibility in Global Supply Chains
Understanding the uniqueness of firm behaviour

16. Eva Boxenbaum
Institutional Genesis: Micro – Dynamic Foundations of Institutional Change

17. Peter Lund-Thomsen
Capacity Development, Environmental Justice NGOs, and Governance: The Case of South Africa

18. Signe Jarlov
Konstruktioner af offentlig ledelse

19. Lars Stæhr Jensen
Vocabulary Knowledge and Listening Comprehension in English as a Foreign Language
An empirical study employing data elicited from Danish EFL learners

20. Christian Nielsen
Essays on Business Reporting
Production and consumption of strategic information in the market for information

21. Marianne Thejls Fischer
Egos and Ethics of Management Consultants

22. Annie Bekke Kjær
Performance management i Proces-innovation
– belyst i et social-konstruktivistisk perspektiv

23. Suzanne Dee Pedersen
GENTAGELSENS METAMORFOSE
Om organisering af den kreative gøren i den kunstneriske arbejdspraksis

24. Benedikte Dorte Rosenbrink
Revenue Management
Økonomiske, konkurrencemæssige & organisatoriske konsekvenser

25. Thomas Riise Johansen
Written Accounts and Verbal Accounts
The Danish Case of Accounting and Accountability to Employees

26. Ann Fogelgren-Pedersen
The Mobile Internet: Pioneering Users' Adoption Decisions

27. Birgitte Rasmussen
Ledelse i fællesskab – de tillidsvalgtes fornyende rolle

28. Gitte Thit Nielsen
Remerger
– skabende ledelseskræfter i fusion og opkøb

29. Carmine Gioia
A MICROECONOMETRIC ANALYSIS OF MERGERS AND ACQUISITIONS

30. Ole Hinz
Den effektive forandringsleder: pilot, pædagog eller politiker?
Et studie i arbejdslederes meningstilskrivninger i forbindelse med vellykket gennemførelse af ledelsesinitierede forandringsprojekter

31. Kjell-Åge Gotvassli
Et praksisbasert perspektiv på dynamiske
læringsnettverk i toppidretten
Norsk ph.d., ej til salg gennem Samfundslitteratur

32. Henriette Langstrup Nielsen
Linking Healthcare
An inquiry into the changing performances of web-based technology for asthma monitoring

33. Karin Tweddell Levinsen
Virtuel Uddannelsespraksis
Master i IKT og Læring – et casestudie i hvordan proaktiv proceshåndtering kan forbedre praksis i virtuelle læringsmiljøer

34. Anika Liversage
Finding a Path
Labour Market Life Stories of Immigrant Professionals

35. Kasper Elmquist Jørgensen
Studier i samspillet mellem stat og erhvervsliv i Danmark under 1. verdenskrig

36. Finn Janning
A DIFFERENT STORY
Seduction, Conquest and Discovery

37. Patricia Ann Plackett
Strategic Management of the Radical Innovation Process
Leveraging Social Capital for Market Uncertainty Management

2006

1. Christian Vintergaard
Early Phases of Corporate Venturing

2. Niels Rom-Poulsen
Essays in Computational Finance

3. Tina Brandt Husman
Organisational Capabilities, Competitive Advantage & Project-Based Organisations
The Case of Advertising and Creative Good Production

4. Mette Rosenkrands Johansen
Practice at the top
– how top managers mobilise and use non-financial performance measures

5. Eva Parum
Corporate governance som strategisk kommunikations- og ledelsesværktøj

6. Susan Aagaard Petersen
Culture's Influence on Performance Management: The Case of a Danish Company in China

7. Thomas Nicolai Pedersen
The Discursive Constitution of Organizational Governance – Between unity and differentiation
The Case of the governance of environmental risks by World Bank environmental staff

8. Cynthia Selin
Volatile Visions: Transactons in Anticipatory Knowledge

9. Jesper Banghøj
Financial Accounting Information and Compensation in Danish Companies

10. Mikkel Lucas Overby
Strategic Alliances in Emerging High-Tech Markets: What's the Difference and does it Matter?

11. Tine Aage
External Information Acquisition of Industrial Districts and the Impact of Different Knowledge Creation Dimensions

A case study of the Fashion and Design Branch of the Industrial District of Montebelluna, NE Italy

12. Mikkel Flyverbom
Making the Global Information Society Governable
On the Governmentality of Multi-Stakeholder Networks

13. Anette Grønning
Personen bag
Tilstedevær i e-mail som inter-aktionsform mellem kunde og med-arbejder i dansk forsikringskontekst

14. Jørn Helder
One Company – One Language?
The NN-case

15. Lars Bjerregaard Mikkelsen
Differing perceptions of customer value
Development and application of a tool for mapping perceptions of customer value at both ends of customer-supplier dyads in industrial markets

16. Lise Granerud
Exploring Learning
Technological learning within small manufacturers in South Africa

17. Esben Rahbek Pedersen
Between Hopes and Realities: Reflections on the Promises and Practices of Corporate Social Responsibility (CSR)

18. Ramona Samson
The Cultural Integration Model and European Transformation.
The Case of Romania

2007

1. Jakob Vestergaard
Discipline in The Global Economy
Panopticism and the Post-Washington Consensus

2. Heidi Lund Hansen
Spaces for learning and working
A qualitative study of change of work, management, vehicles of power and social practices in open offices

3. Sudhanshu Rai
Exploring the internal dynamics of software development teams during user analysis
A tension enabled Institutionalization Model; "Where process becomes the objective"

4. Norsk ph.d.
Ej til salg gennem Samfundslitteratur

5. Serden Ozcan
EXPLORING HETEROGENEITY IN ORGANIZATIONAL ACTIONS AND OUTCOMES
A Behavioural Perspective

6. Kim Sundtoft Hald
Inter-organizational Performance Measurement and Management in Action
– An Ethnography on the Construction of Management, Identity and Relationships

7. Tobias Lindeberg
Evaluative Technologies
Quality and the Multiplicity of Performance

8. Merete Wedell-Wedellsborg
Den globale soldat
Identitetsdannelse og identitetsledelse i multinationale militære organisationer

9. Lars Frederiksen
Open Innovation Business Models
Innovation in firm-hosted online user communities and inter-firm project ventures in the music industry
– A collection of essays

10. Jonas Gabrielsen
Retorisk toposlære – fra statisk 'sted' til persuasiv aktivitet

11. Christian Moldt-Jørgensen
Fra meningsløs til meningsfuld evaluering.
Anvendelsen af studentertilfredshedsmålinger på de korte og mellemlange videregående uddannelser set fra et psykodynamisk systemperspektiv

12. Ping Gao
Extending the application of actor-network theory
Cases of innovation in the telecommunications industry

13. Peter Mejlby
Frihed og fængsel, en del af den samme drøm?
Et phronetisk baseret casestudie af frigørelsens og kontrollens sameksistens i værdibaseret ledelse!

14. Kristina Birch
Statistical Modelling in Marketing

15. Signe Poulsen
Sense and sensibility:
The language of emotional appeals in insurance marketing

16. Anders Bjerre Trolle
Essays on derivatives pricing and dynamic asset allocation

17. Peter Feldhütter
Empirical Studies of Bond and Credit Markets

18. Jens Henrik Eggert Christensen
Default and Recovery Risk Modeling and Estimation

19. Maria Theresa Larsen
Academic Enterprise: A New Mission for Universities or a Contradiction in Terms?
Four papers on the long-term implications of increasing industry involvement and commercialization in academia

20. Morten Wellendorf
Postimplementering af teknologi i den offentlige forvaltning
Analyser af en organisations kontinuerlige arbejde med informationsteknologi

21. Ekaterina Mhaanna
Concept Relations for Terminological Process Analysis

22. Stefan Ring Thorbjørnsen
Forsvaret i forandring
Et studie i officerers kapabiliteter under påvirkning af omverdenens forandringspres mod øget styring og læring

23. Christa Breum Amhøj
Det selvskabte medlemskab om managementstaten, dens styringsteknologier og indbyggere

24. Karoline Bromose
Between Technological Turbulence and Operational Stability
– An empirical case study of corporate venturing in TDC

25. Susanne Justesen
Navigating the Paradoxes of Diversity in Innovation Practice
– A Longitudinal study of six very different innovation processes – in practice

26. Luise Noring Henler
Conceptualising successful supply chain partnerships
– Viewing supply chain partnerships from an organisational culture perspective

27. Mark Mau
Kampen om telefonen
Det danske telefonvæsen under den tyske besættelse 1940-45

28. Jakob Halskov
The semiautomatic expansion of existing terminological ontologies using knowledge patterns discovered

on the WWW – an implementation and evaluation

29. Gergana Koleva
European Policy Instruments Beyond Networks and Structure: The Innovative Medicines Initiative

30. Christian Geisler Asmussen
Global Strategy and International Diversity: A Double-Edged Sword?

31. Christina Holm-Petersen
Stolthed og fordom
Kultur- og identitetsarbejde ved skabelsen af en ny sengeafdeling gennem fusion

32. Hans Peter Olsen
Hybrid Governance of Standardized States
Causes and Contours of the Global Regulation of Government Auditing

33. Lars Bøge Sørensen
Risk Management in the Supply Chain

34. Peter Aagaard
Det unikkes dynamikker
De institutionelle mulighedsbetingelser bag den individuelle udforskning i professionelt og frivilligt arbejde

35. Yun Mi Antorini
Brand Community Innovation
An Intrinsic Case Study of the Adult Fans of LEGO Community

36. Joachim Lynggaard Boll
Labor Related Corporate Social Performance in Denmark
Organizational and Institutional Perspectives

2008

1. Frederik Christian Vinten
Essays on Private Equity

2. Jesper Clement
Visual Influence of Packaging Design on In-Store Buying Decisions

3. Marius Brostrøm Kousgaard
Tid til kvalitetsmåling?
– Studier af indrulleringsprocesser i forbindelse med introduktionen af kliniske kvalitetsdatabaser i speciallægepraksissektoren

4. Irene Skovgaard Smith
Management Consulting in Action
Value creation and ambiguity in client-consultant relations

5. Anders Rom
Management accounting and integrated information systems
How to exploit the potential for management accounting of information technology

6. Marina Candi
Aesthetic Design as an Element of Service Innovation in New Technology-based Firms

7. Morten Schnack
Teknologi og tværfaglighed
– en analyse af diskussionen omkring indførelse af EPJ på en hospitalsafdeling

8. Helene Balslev Clausen
Juntos pero no revueltos – un estudio sobre emigrantes norteamericanos en un pueblo mexicano

9. Lise Justesen
Kunsten at skrive revisionsrapporter.
En beretning om forvaltningsrevisionens beretninger

10. Michael E. Hansen
The politics of corporate responsibility: CSR and the governance of child labor and core labor rights in the 1990s

11. Anne Roepstorff
Holdning for handling – en etnologisk undersøgelse af Virksomheders Sociale Ansvar/CSR

12. Claus Bajlum
Essays on Credit Risk and Credit Derivatives

13. Anders Bojesen
The Performative Power of Competence – an Inquiry into Subjectivity and Social Technologies at Work

14. Satu Reijonen
Green and Fragile
A Study on Markets and the Natural Environment

15. Ilduara Busta
Corporate Governance in Banking
A European Study

16. Kristian Anders Hvass
A Boolean Analysis Predicting Industry Change: Innovation, Imitation & Business Models
The Winning Hybrid: A case study of isomorphism in the airline industry

17. Trine Paludan
De uvidende og de udviklingsparate
Identitet som mulighed og restriktion blandt fabriksarbejdere på det aftayloriserede fabriksgulv

18. Kristian Jakobsen
Foreign market entry in transition economies: Entry timing and mode choice

19. Jakob Elming
Syntactic reordering in statistical machine translation

20. Lars Brømsøe Termansen
Regional Computable General Equilibrium Models for Denmark
Three papers laying the foundation for regional CGE models with agglomeration characteristics

21. Mia Reinholt
The Motivational Foundations of Knowledge Sharing

22. Frederikke Krogh-Meibom
The Co-Evolution of Institutions and Technology
– A Neo-Institutional Understanding of Change Processes within the Business Press – the Case Study of Financial Times

23. Peter D. Ørberg Jensen
OFFSHORING OF ADVANCED AND HIGH-VALUE TECHNICAL SERVICES: ANTECEDENTS, PROCESS DYNAMICS AND FIRMLEVEL IMPACTS

24. Pham Thi Song Hanh
Functional Upgrading, Relational Capability and Export Performance of Vietnamese Wood Furniture Producers

25. Mads Vangkilde
Why wait?
An Exploration of first-mover advantages among Danish e-grocers through a resource perspective

26. Hubert Buch-Hansen
Rethinking the History of European Level Merger Control
A Critical Political Economy Perspective

2009

1. Vivian Lindhardsen
From Independent Ratings to Communal Ratings: A Study of CWA Raters' Decision-Making Behaviours

2. Guðrið Weihe
Public-Private Partnerships: Meaning and Practice

3. Chris Nøkkentved
Enabling Supply Networks with Collaborative Information Infrastructures
An Empirical Investigation of Business Model Innovation in Supplier Relationship Management

4. Sara Louise Muhr
Wound, Interrupted – On the Vulnerability of Diversity Management

5. Christine Sestoft
Forbrugeradfærd i et Stats- og Livsformsteoretisk perspektiv

6. Michael Pedersen
Tune in, Breakdown, and Reboot: On the production of the stress-fit self-managing employee

7. Salla Lutz
Position and Reposition in Networks – Exemplified by the Transformation of the Danish Pine Furniture Manufacturers

8. Jens Forssbæck
Essays on market discipline in commercial and central banking

9. Tine Murphy
Sense from Silence – A Basis for Organised Action
How do Sensemaking Processes with Minimal Sharing Relate to the Reproduction of Organised Action?

10. Sara Malou Strandvad
Inspirations for a new sociology of art: A sociomaterial study of development processes in the Danish film industry

11. Nicolaas Mouton
On the evolution of social scientific metaphors:
A cognitive-historical enquiry into the divergent trajectories of the idea that collective entities – states and societies, cities and corporations – are biological organisms.

12. Lars Andreas Knutsen
Mobile Data Services:
Shaping of user engagements

13. Nikolaos Theodoros Korfiatis
Information Exchange and Behavior
A Multi-method Inquiry on Online Communities

14. Jens Albæk
Forestillinger om kvalitet og tværfaglighed på sygehuse
– skabelse af forestillinger i læge- og plejegrupperne angående relevans af nye idéer om kvalitetsudvikling gennem tolkningsprocesser

15. Maja Lotz
The Business of Co-Creation – and the Co-Creation of Business

16. Gitte P. Jakobsen
Narrative Construction of Leader Identity in a Leader Development Program Context

17. Dorte Hermansen
"Living the brand" som en brandorienteret dialogisk praxis:
Om udvikling af medarbejdernes brandorienterede dømmekraft

18. Aseem Kinra
Supply Chain (logistics) Environmental Complexity

19. Michael Nørager
How to manage SMEs through the transformation from non innovative to innovative?

20. Kristin Wallevik
Corporate Governance in Family Firms
The Norwegian Maritime Sector

21. Bo Hansen Hansen
Beyond the Process
Enriching Software Process Improvement with Knowledge Management

22. Annemette Skot-Hansen
Franske adjektivisk afledte adverbier, der tager præpositionssyntagmer indledt med præpositionen à som argumenter
En valensgrammatisk undersøgelse

23. Line Gry Knudsen
Collaborative R&D Capabilities
In Search of Micro-Foundations

24. Christian Scheuer
Employers meet employees
Essays on sorting and globalization

25. Rasmus Johnsen
The Great Health of Melancholy
A Study of the Pathologies of Performativity

26. Ha Thi Van Pham
Internationalization, Competitiveness Enhancement and Export Performance of Emerging Market Firms:
Evidence from Vietnam

27. Henriette Balieu
Kontrolbegrebets betydning for kausativalternationen i spansk
En kognitiv-typologisk analyse

2010

1. Yen Tran
Organizing Innovationin Turbulent Fashion Market
Four papers on how fashion firms create and appropriate innovation value

2. Anders Raastrup Kristensen
Metaphysical Labour
Flexibility, Performance and Commitment in Work-Life Management

3. Margrét Sigrún Sigurdardottir
Dependently independent
Co-existence of institutional logics in the recorded music industry

4. Ásta Dis Óladóttir
Internationalization from a small domestic base:
An empirical analysis of Economics and Management

5. Christine Secher
E-deltagelse i praksis – politikernes og forvaltningens medkonstruktion og konsekvenserne heraf

6. Marianne Stang Våland
What we talk about when we talk about space:
End User Participation between Processes of Organizational and Architectural Design

7. Rex Degnegaard
Strategic Change Management
Change Management Challenges in the Danish Police Reform

8. Ulrik Schultz Brix
Værdi i rekruttering – den sikre beslutning
En pragmatisk analyse af perception og synliggørelse af værdi i rekrutterings- og udvælgelsesarbejdet

9. Jan Ole Similä
Kontraktsledelse
Relasjonen mellom virksomhetsledelse og kontraktshåndtering, belyst via fire norske virksomheter

10. Susanne Boch Waldorff
Emerging Organizations: In between local translation, institutional logics and discourse

11. Brian Kane
Performance Talk
Next Generation Management of Organizational Performance

12. Lars Ohnemus
Brand Thrust: Strategic Branding and Shareholder Value
An Empirical Reconciliation of two Critical Concepts

13. Jesper Schlamovitz
Håndtering af usikkerhed i film- og byggeprojekter

14. Tommy Moesby-Jensen
Det faktiske livs forbindtlighed
Førsokratisk informeret, ny-aristotelisk ἦθος-tænkning hos Martin Heidegger

15. Christian Fich
Two Nations Divided by Common Values
French National Habitus and the Rejection of American Power

16. Peter Beyer
Processer, sammenhængskraft og fleksibilitet
Et empirisk casestudie af omstillingsforløb i fire virksomheder

17. Adam Buchhorn
Markets of Good Intentions
Constructing and Organizing Biogas Markets Amid Fragility and Controversy

18. Cecilie K. Moesby-Jensen
Social læring og fælles praksis
Et mixed method studie, der belyser læringskonsekvenser af et lederkursus for et praksisfællesskab af offentlige mellemledere

19. Heidi Boye
Fødevarer og sundhed i senmodernismen
– En indsigt i hyggefænomenet og de relaterede fødevarepraksisser

20. Kristine Munkgård Pedersen
Flygtige forbindelser og midlertidige mobiliseringer
Om kulturel produktion på Roskilde Festival

21. Oliver Jacob Weber
Causes of Intercompany Harmony in Business Markets – An Empirical Investigation from a Dyad Perspective

22. Susanne Ekman
Authority and Autonomy
Paradoxes of Modern Knowledge Work

23. Anette Frey Larsen
Kvalitetsledelse på danske hospitaler
– Ledelsernes indflydelse på introduktion og vedligeholdelse af kvalitetsstrategier i det danske sundhedsvæsen

24. Toyoko Sato
Performativity and Discourse: Japanese Advertisements on the Aesthetic Education of Desire

25. Kenneth Brinch Jensen
Identifying the Last Planner System
Lean management in the construction industry

26. Javier Busquets
Orchestrating Network Behavior for Innovation

27. Luke Patey
The Power of Resistance: India's National Oil Company and International Activism in Sudan

28. Mette Vedel
Value Creation in Triadic Business Relationships. Interaction, Interconnection and Position

29. Kristian Tørning
Knowledge Management Systems in Practice – A Work Place Study

30. Qingxin Shi
An Empirical Study of Thinking Aloud Usability Testing from a Cultural Perspective

31. Tanja Juul Christiansen
Corporate blogging: Medarbejderes kommunikative handlekraft

32. Malgorzata Ciesielska
Hybrid Organisations.
A study of the Open Source – business setting

33. Jens Dick-Nielsen
Three Essays on Corporate Bond Market Liquidity

34. Sabrina Speiermann
Modstandens Politik
Kampagnestyring i Velfærdsstaten.
En diskussion af trafikkampagners styringspotentiale

35. Julie Uldam
Fickle Commitment. Fostering political engagement in 'the flighty world of online activism'

36. Annegrete Juul Nielsen
Traveling technologies and transformations in health care

37. Athur Mühlen-Schulte
Organising Development Power and Organisational Reform in the United Nations Development Programme

38. Louise Rygaard Jonas
Branding på butiksgulvet Et case-studie af kultur- og identitetsarbejdet i Kvickly

2011

1. Stefan Fraenkel
Key Success Factors for Sales Force Readiness during New Product Launch A Study of Product Launches in the Swedish Pharmaceutical Industry

2. Christian Plesner Rossing
International Transfer Pricing in Theory and Practice

3. Tobias Dam Hede
Samtalekunst og ledelsesdisciplin – en analyse af coachingsdiskursens genealogi og governmentality

4. Kim Pettersson
Essays on Audit Quality, Auditor Choice, and Equity Valuation

5. Henrik Merkelsen
The expert-lay controversy in risk research and management. Effects of institutional distances. Studies of risk definitions, perceptions, management and communication

6. Simon S. Torp
Employee Stock Ownership: Effect on Strategic Management and Performance

7. Mie Harder
Internal Antecedents of Management Innovation

8. Ole Helby Petersen
Public-Private Partnerships: Policy and Regulation – With Comparative and Multi-level Case Studies from Denmark and Ireland

9. Morten Krogh Petersen
'Good' Outcomes. Handling Multiplicity in Government Communication

10. Kristian Tangsgaard Hvelplund
Allocation of cognitive resources in translation - an eye-tracking and key-logging study

11. Moshe Yonatany
The Internationalization Process of Digital Service Providers

12. Anne Vestergaard
Distance and Suffering Humanitarian Discourse in the age of Mediatization

13. Thorsten Mikkelsen
Personligsheds indflydelse på forretningsrelationer

14. Jane Thostrup Jagd
Hvorfor fortsætter fusionsbølgen udover "the tipping point"? – en empirisk analyse af information og kognitioner om fusioner

15. Gregory Gimpel
Value-driven Adoption and Consumption of Technology: Understanding Technology Decision Making

16. Thomas Stengade Sønderskov
Den nye mulighed Social innovation i en forretningsmæssig kontekst

17. Jeppe Christoffersen
Donor supported strategic alliances in developing countries

18. Vibeke Vad Baunsgaard
Dominant Ideological Modes of Rationality: Cross functional

integration in the process of product innovation

19. Throstur Olaf Sigurjonsson
Governance Failure and Icelands's Financial Collapse

20. Allan Sall Tang Andersen
Essays on the modeling of risks in interest-rate and inflation markets

21. Heidi Tscherning
Mobile Devices in Social Contexts

22. Birgitte Gorm Hansen
Adapting in the Knowledge Economy
Lateral Strategies for Scientists and Those Who Study Them

23. Kristina Vaarst Andersen
Optimal Levels of Embeddedness
The Contingent Value of Networked Collaboration

24. Justine Grønbæk Pors
Noisy Management
A History of Danish School Governing from 1970-2010

25. Stefan Linder
Micro-foundations of Strategic Entrepreneurship
Essays on Autonomous Strategic Action

26. Xin Li
Toward an Integrative Framework of National Competitiveness
An application to China

27. Rune Thorbjørn Clausen
Værdifuld arkitektur
Et eksplorativt studie af bygningers rolle i virksomheders værdiskabelse

28. Monica Viken
Markedsundersøkelser som bevis i varemerke- og markedsføringsrett

29. Christian Wymann
Tattooing
The Economic and Artistic Constitution of a Social Phenomenon

30. Sanne Frandsen
Productive Incoherence
A Case Study of Branding and Identity Struggles in a Low-Prestige Organization

31. Mads Stenbo Nielsen
Essays on Correlation Modelling

32. Ivan Häuser
Følelse og sprog
Etablering af en ekspressiv kategori, eksemplificeret på russisk

33. Sebastian Schwenen
Security of Supply in Electricity Markets

2012

1. Peter Holm Andreasen
The Dynamics of Procurement Management
- A Complexity Approach

2. Martin Haulrich
Data-Driven Bitext Dependency Parsing and Alignment

3. Line Kirkegaard
Konsulenten i den anden nat
En undersøgelse af det intense arbejdsliv

4. Tonny Stenheim
Decision usefulness of goodwill under IFRS

5. Morten Lind Larsen
Produktivitet, vækst og velfærd
Industrirådet og efterkrigstidens Danmark 1945 - 1958

6. Petter Berg
Cartel Damages and Cost Asymmetries

7. Lynn Kahle
Experiential Discourse in Marketing
A methodical inquiry into practice and theory

8. Anne Roelsgaard Obling
Management of Emotions in Accelerated Medical Relationships

9. Thomas Frandsen
Managing Modularity of Service Processes Architecture

10. Carina Christine Skovmøller
CSR som noget særligt
Et casestudie om styring og meningsskabelse i relation til CSR ud fra en intern optik

11. Michael Tell
Fradragsbeskæring af selskabers finansieringsudgifter
En skatteretlig analyse af SEL §§ 11, 11B og 11C

12. Morten Holm
Customer Profitability Measurement Models
Their Merits and Sophistication across Contexts

13. Katja Joo Dyppel
Beskatning af derivater
En analyse af dansk skatteret

14. Esben Anton Schultz
Essays in Labor Economics
Evidence from Danish Micro Data

15. Carina Risvig Hansen
"Contracts not covered, or not fully covered, by the Public Sector Directive"

16. Anja Svejgaard Pors
Iværksættelse af kommunikation
- patientfigurer i hospitalets strategiske kommunikation

17. Frans Bévort
Making sense of management with logics
An ethnographic study of accountants who become managers

18. René Kallestrup
The Dynamics of Bank and Sovereign Credit Risk

19. Brett Crawford
Revisiting the Phenomenon of Interests in Organizational Institutionalism
The Case of U.S. Chambers of Commerce

20. Mario Daniele Amore
Essays on Empirical Corporate Finance

21. Arne Stjernholm Madsen
The evolution of innovation strategy
Studied in the context of medical device activities at the pharmaceutical company Novo Nordisk A/S in the period 1980-2008

22. Jacob Holm Hansen
Is Social Integration Necessary for Corporate Branding?
A study of corporate branding strategies at Novo Nordisk

23. Stuart Webber
Corporate Profit Shifting and the Multinational Enterprise

24. Helene Ratner
Promises of Reflexivity
Managing and Researching Inclusive Schools

25. Therese Strand
The Owners and the Power: Insights from Annual General Meetings

26. Robert Gavin Strand
In Praise of Corporate Social Responsibility Bureaucracy

27. Nina Sormunen
Auditor's going-concern reporting
Reporting decision and content of the report

28. John Bang Mathiasen
Learning within a product development working practice:
- an understanding anchored in pragmatism

29. Philip Holst Riis
Understanding Role-Oriented Enterprise Systems: From Vendors to Customers

30. Marie Lisa Dacanay
Social Enterprises and the Poor
Enhancing Social Entrepreneurship and Stakeholder Theory

31. Fumiko Kano Glückstad
Bridging Remote Cultures: Cross-lingual concept mapping based on the information receiver's prior-knowledge

32. Henrik Barslund Fosse
Empirical Essays in International Trade

33. Peter Alexander Albrecht
Foundational hybridity and its reproduction
Security sector reform in Sierra Leone

34. Maja Rosenstock
CSR - hvor svært kan det være?
Kulturanalytisk casestudie om udfordringer og dilemmaer med at forankre Coops CSR-strategi

35. Jeanette Rasmussen
Tweens, medier og forbrug
Et studie af 10-12 årige danske børns brug af internettet, opfattelse og forståelse af markedsføring og forbrug

36. Ib Tunby Gulbrandsen
'This page is not intended for a US Audience'
A five-act spectacle on online communication, collaboration & organization.

37. Kasper Aalling Teilmann
Interactive Approaches to Rural Development

38. Mette Mogensen
The Organization(s) of Well-being and Productivity
(Re)assembling work in the Danish Post

39. Søren Friis Møller
From Disinterestedness to Engagement
Towards Relational Leadership In the Cultural Sector

40. Nico Peter Berhausen
Management Control, Innovation and Strategic Objectives – Interactions and Convergence in Product Development Networks

41. Balder Onarheim
Creativity under Constraints
Creativity as Balancing 'Constrainedness'

42. Haoyong Zhou
Essays on Family Firms

43. Elisabeth Naima Mikkelsen
Making sense of organisational conflict
An empirical study of enacted sensemaking in everyday conflict at work

2013

1. Jacob Lyngsie
Entrepreneurship in an Organizational Context

2. Signe Groth-Brodersen
Fra ledelse til selvet
En socialpsykologisk analyse af forholdet imellem selvledelse, ledelse og stress i det moderne arbejdsliv

3. Nis Høyrup Christensen
Shaping Markets: A Neoinstitutional Analysis of the Emerging Organizational Field of Renewable Energy in China

4. Christian Edelvold Berg
As a matter of size
THE IMPORTANCE OF CRITICAL MASS AND THE CONSEQUENCES OF SCARCITY FOR TELEVISION MARKETS

5. Christine D. Isakson
Coworker Influence and Labor Mobility
Essays on Turnover, Entrepreneurship and Location Choice in the Danish Maritime Industry

6. Niels Joseph Jerne Lennon
Accounting Qualities in Practice
Rhizomatic stories of representational faithfulness, decision making and control

7. Shannon O'Donnell
Making Ensemble Possible
How special groups organize for collaborative creativity in conditions of spatial variability and distance

8. Robert W. D. Veitch
Access Decisions in a Partly-Digital World Comparing Digital Piracy and Legal Modes for Film and Music

9. Marie Mathiesen
Making Strategy Work An Organizational Ethnography

10. Arisa Shollo
The role of business intelligence in organizational decision-making

11. Mia Kaspersen
The construction of social and environmental reporting

12. Marcus Møller Larsen
The organizational design of offshoring

13. Mette Ohm Rørdam
EU Law on Food Naming The prohibition against misleading names in an internal market context

14. Hans Peter Rasmussen
GIV EN GED! Kan giver-idealtyper forklare støtte til velgørenhed og understøtte relationsopbygning?

15. Ruben Schachtenhaufen
Fonetisk reduktion i dansk

16. Peter Koerver Schmidt
Dansk CFC-beskatning I et internationalt og komparativt perspektiv

17. Morten Froholdt
Strategi i den offentlige sektor En kortlægning af styringsmæssig kontekst, strategisk tilgang, samt anvendte redskaber og teknologier for udvalgte danske statslige styrelser

18. Annette Camilla Sjørup
Cognitive effort in metaphor translation An eye-tracking and key-logging study

19. Tamara Stucchi
The Internationalization of Emerging Market Firms: A Context-Specific Study

20. Thomas Lopdrup-Hjorth
"Let's Go Outside": The Value of Co-Creation

21. Ana Alačovska
Genre and Autonomy in Cultural Production The case of travel guidebook production

22. Marius Gudmand-Høyer
Stemningssindssygdommenes historie i det 19. århundrede Omtydningen af melankolien og manien som bipolære stemningslidelser i dansk sammenhæng under hensyn til dannelsen af det moderne følelseslivs relative autonomi. En problematiserings- og erfarings-analytisk undersøgelse

23. Lichen Alex Yu
Fabricating an S&OP Process Circulating References and Matters of Concern

24. Esben Alfort
The Expression of a Need Understanding search

25. Trine Pallesen
Assembling Markets for Wind Power An Inquiry into the Making of Market Devices

26. Anders Koed Madsen
Web-Visions Repurposing digital traces to organize social attention

27. Lærke Højgaard Christiansen
BREWING ORGANIZATIONAL RESPONSES TO INSTITUTIONAL LOGICS

28. Tommy Kjær Lassen
EGENTLIG SELVLEDELSE En ledelsesfilosofisk afhandling om selvledelsens paradoksale dynamik og eksistentielle engagement

29. Morten Rossing
Local Adaption and Meaning Creation in Performance Appraisal

30. Søren Obed Madsen
*Lederen som oversætter
Et oversættelsesteoretisk perspektiv på strategisk arbejde*

31. Thomas Høgenhaven
*Open Government Communities
Does Design Affect Participation?*

32. Kirstine Zinck Pedersen
*Failsafe Organizing?
A Pragmatic Stance on Patient Safety*

33. Anne Petersen
*Hverdagslogikker i psykiatrisk arbejde
En institutionsetnografisk undersøgelse af hverdagen i psykiatriske organisationer*

34. Didde Maria Humle
Fortællinger om arbejde

35. Mark Holst-Mikkelsen
*Strategieksekvering i praksis
– barrierer og muligheder!*

36. Malek Maalouf
*Sustaining lean
Strategies for dealing with organizational paradoxes*

37. Nicolaj Tofte Brenneche
*Systemic Innovation In The Making
The Social Productivity of Cartographic Crisis and Transitions in the Case of SEEIT*

38. Morten Gylling
*The Structure of Discourse
A Corpus-Based Cross-Linguistic Study*

39. Binzhang YANG
*Urban Green Spaces for Quality Life
- Case Study: the landscape architecture for people in Copenhagen*

40. Michael Friis Pedersen
*Finance and Organization:
The Implications for Whole Farm Risk Management*

41. Even Fallan
Issues on supply and demand for environmental accounting information

42. Ather Nawaz
*Website user experience
A cross-cultural study of the relation between users´ cognitive style, context of use, and information architecture of local websites*

43. Karin Beukel
The Determinants for Creating Valuable Inventions

44. Arjan Markus
*External Knowledge Sourcing and Firm Innovation
Essays on the Micro-Foundations of Firms' Search for Innovation*

2014

1. Solon Moreira
Four Essays on Technology Licensing and Firm Innovation

2. Karin Strzeletz Ivertsen
*Partnership Drift in Innovation Processes
A study of the Think City electric car development*

3. Kathrine Hoffmann Pii
Responsibility Flows in Patient-centred Prevention

4. Jane Bjørn Vedel
*Managing Strategic Research
An empirical analysis of science-industry collaboration in a pharmaceutical company*

5. Martin Gylling
*Processuel strategi i organisationer
Monografi om dobbeltheden i tænkning af strategi, dels som vidensfelt i organisationsteori, dels som kunstnerisk tilgang til at skabe i erhvervsmæssig innovation*

6. Linne Marie Lauesen
Corporate Social Responsibility in the Water Sector: How Material Practices and their Symbolic and Physical Meanings Form a Colonising Logic

7. Maggie Qiuzhu Mei
LEARNING TO INNOVATE: The role of ambidexterity, standard, and decision process

8. Inger Høedt-Rasmussen
Developing Identity for Lawyers Towards Sustainable Lawyering

9. Sebastian Fux
Essays on Return Predictability and Term Structure Modelling

10. Thorbjørn N. M. Lund-Poulsen
Essays on Value Based Management

11. Oana Brindusa Albu
Transparency in Organizing: A Performative Approach

12. Lena Olaison
Entrepreneurship at the limits

13. Hanne Sørum
DRESSED FOR WEB SUCCESS? An Empirical Study of Website Quality in the Public Sector

14. Lasse Folke Henriksen
Knowing networks How experts shape transnational governance

15. Maria Halbinger
Entrepreneurial Individuals Empirical Investigations into Entrepreneurial Activities of Hackers and Makers

16. Robert Spliid
Kapitalfondenes metoder og kompetencer

17. Christiane Stelling
Public-private partnerships & the need, development and management of trusting A processual and embedded exploration

18. Marta Gasparin
Management of design as a translation process

19. Kåre Moberg
Assessing the Impact of Entrepreneurship Education From ABC to PhD

20. Alexander Cole
Distant neighbors Collective learning beyond the cluster

21. Martin Møller Boje Rasmussen
Is Competitiveness a Question of Being Alike? How the United Kingdom, Germany and Denmark Came to Compete through their Knowledge Regimes from 1993 to 2007

22. Anders Ravn Sørensen
Studies in central bank legitimacy, currency and national identity Four cases from Danish monetary history

23. Nina Bellak
Can Language be Managed in International Business? Insights into Language Choice from a Case Study of Danish and Austrian Multinational Corporations (MNCs)

24. Rikke Kristine Nielsen
Global Mindset as Managerial Meta-competence and Organizational Capability: Boundary-crossing Leadership Cooperation in the MNC The Case of 'Group Mindset' in Solar A/S.

25. Rasmus Koss Hartmann
User Innovation inside government Towards a critically performative foundation for inquiry

26. Kristian Gylling Olesen
Flertydig og emergerende ledelse i folkeskolen
Et aktør-netværksteoretisk ledelses-studie af politiske evalueringsreformers betydning for ledelse i den danske folkeskole

27. Troels Riis Larsen
Kampen om Danmarks omdømme 1945-2010
Omdømmearbejde og omdømmepolitik

28. Klaus Majgaard
Jagten på autenticitet i offentlig styring

29. Ming Hua Li
Institutional Transition and Organizational Diversity: Differentiated internationalization strategies of emerging market state-owned enterprises

30. Sofie Blinkenberg Federspiel
IT, organisation og digitalisering: Institutionelt arbejde i den kommunale digitaliseringsproces

31. Elvi Weinreich
Hvilke offentlige ledere er der brug for når velfærdstænkningen flytter sig – er Diplomuddannelsens lederprofil svaret?

32. Ellen Mølgaard Korsager
Self-conception and image of context in the growth of the firm – A Penrosian History of Fiberline Composites

33. Else Skjold
The Daily Selection

34. Marie Louise Conradsen
The Cancer Centre That Never Was
The Organisation of Danish Cancer Research 1949-1992

35. Virgilio Failla
Three Essays on the Dynamics of Entrepreneurs in the Labor Market

36. Nicky Nedergaard
Brand-Based Innovation
Relational Perspectives on Brand Logics and Design Innovation Strategies and Implementation

37. Mads Gjedsted Nielsen
Essays in Real Estate Finance

38. Kristin Martina Brandl
Process Perspectives on Service Offshoring

39. Mia Rosa Koss Hartmann
In the gray zone
With police in making space for creativity

40. Karen Ingerslev
Healthcare Innovation under The Microscope
Framing Boundaries of Wicked Problems

41. Tim Neerup Themsen
Risk Management in large Danish public capital investment programmes

2015

1. Jakob Ion Wille
Film som design
Design af levende billeder i film og tv-serier

2. Christiane Mossin
Interzones of Law and Metaphysics
Hierarchies, Logics and Foundations of Social Order seen through the Prism of EU Social Rights

3. Thomas Tøth
TRUSTWORTHINESS: ENABLING GLOBAL COLLABORATION
An Ethnographic Study of Trust, Distance, Control, Culture and Boundary Spanning within Offshore Outsourcing of IT Services

4. Steven Højlund
Evaluation Use in Evaluation Systems – The Case of the European Commission

5. Julia Kirch Kirkegaard
AMBIGUOUS WINDS OF CHANGE – OR FIGHTING AGAINST WINDMILLS IN CHINESE WIND POWER
A CONSTRUCTIVIST INQUIRY INTO CHINA'S PRAGMATICS OF GREEN MARKETISATION MAPPING CONTROVERSIES OVER A POTENTIAL TURN TO QUALITY IN CHINESE WIND POWER

6. Michelle Carol Antero
A Multi-case Analysis of the Development of Enterprise Resource Planning Systems (ERP) Business Practices

Morten Friis-Olivarius
The Associative Nature of Creativity

7. Mathew Abraham
New Cooperativism: A study of emerging producer organisations in India

8. Stine Hedegaard
Sustainability-Focused Identity: Identity work performed to manage, negotiate and resolve barriers and tensions that arise in the process of constructing or ganizational identity in a sustainability context

9. Cecilie Glerup
Organizing Science in Society – the conduct and justification of resposible research

10. Allan Salling Pedersen
Implementering af ITIL® IT-governance - når best practice konflikter med kulturen Løsning af implementerings- problemer gennem anvendelse af kendte CSF i et aktionsforskningsforløb.

11. Nihat Misir
A Real Options Approach to Determining Power Prices

12. Mamdouh Medhat
MEASURING AND PRICING THE RISK OF CORPORATE FAILURES

13. Rina Hansen
Toward a Digital Strategy for Omnichannel Retailing

14. Eva Pallesen
In the rhythm of welfare creation
A relational processual investigation moving beyond the conceptual horizon of welfare management

15. Gouya Harirchi
In Search of Opportunities: Three Essays on Global Linkages for Innovation

16. Lotte Holck
Embedded Diversity: A critical ethnographic study of the structural tensions of organizing diversity

17. Jose Daniel Balarezo
Learning through Scenario Planning

18. Louise Pram Nielsen
Knowledge dissemination based on terminological ontologies. Using eye tracking to further user interface design.

19. Sofie Dam
PUBLIC-PRIVATE PARTNERSHIPS FOR INNOVATION AND SUSTAINABILITY TRANSFORMATION
An embedded, comparative case study of municipal waste management in England and Denmark

20. Ulrik Hartmyer Christiansen
Follwoing the Content of Reported Risk Across the Organization

21. Guro Refsum Sanden
Language strategies in multinational corporations. A cross-sector study of financial service companies and manufacturing companies.

22. Linn Gevoll
Designing performance management for operational level
- A closer look on the role of design choices in framing coordination and motivation

23. Frederik Larsen
Objects and Social Actions
– on Second-hand Valuation Practices

24. Thorhildur Hansdottir Jetzek
The Sustainable Value of Open Government Data
Uncovering the Generative Mechanisms of Open Data through a Mixed Methods Approach

25. Gustav Toppenberg
Innovation-based M&A
– Technological-Integration Challenges – The Case of Digital-Technology Companies

26. Mie Plotnikof
Challenges of Collaborative Governance
An Organizational Discourse Study of Public Managers' Struggles with Collaboration across the Daycare Area

27. Christian Garmann Johnsen
Who Are the Post-Bureaucrats?
A Philosophical Examination of the Creative Manager, the Authentic Leader and the Entrepreneur

28. Jacob Brogaard-Kay
Constituting Performance Management
A field study of a pharmaceutical company

29. Rasmus Ploug Jenle
Engineering Markets for Control: Integrating Wind Power into the Danish Electricity System

30. Morten Lindholst
Complex Business Negotiation: Understanding Preparation and Planning

31. Morten Grynings
TRUST AND TRANSPARENCY FROM AN ALIGNMENT PERSPECTIVE

32. Peter Andreas Norn
Byregimer og styringsevne: Politisk lederskab af store byudviklingsprojekter

33. Milan Miric
Essays on Competition, Innovation and Firm Strategy in Digital Markets

34. Sanne K. Hjordrup
The Value of Talent Management
Rethinking practice, problems and possibilities

35. Johanna Sax
Strategic Risk Management
– Analyzing Antecedents and Contingencies for Value Creation

36. Pernille Rydén
Strategic Cognition of Social Media

37. Mimmi Sjöklint
The Measurable Me
- The Influence of Self-tracking on the User Experience

38. Juan Ignacio Staricco
Towards a Fair Global Economic Regime? A critical assessment of Fair Trade through the examination of the Argentinean wine industry

39. Marie Henriette Madsen
Emerging and temporary connections in Quality work

40. Yangfeng CAO
Toward a Process Framework of Business Model Innovation in the Global Context
Entrepreneurship-Enabled Dynamic Capability of Medium-Sized Multinational Enterprises

41. Carsten Scheibye
Enactment of the Organizational Cost Structure in Value Chain Configuration
A Contribution to Strategic Cost Management

2016

1. Signe Sofie Dyrby
Enterprise Social Media at Work

2. Dorte Boesby Dahl
The making of the public parking attendant
Dirt, aesthetics and inclusion in public service work

3. Verena Girschik
Realizing Corporate Responsibility Positioning and Framing in Nascent Institutional Change

4. Anders Ørding Olsen
IN SEARCH OF SOLUTIONS
Inertia, Knowledge Sources and Diversity in Collaborative Problem-solving

5. Pernille Steen Pedersen
Udkast til et nyt copingbegreb
En kvalifikation af ledelsesmuligheder for at forebygge sygefravær ved psykiske problemer.

6. Kerli Kant Hvass
Weaving a Path from Waste to Value: Exploring fashion industry business models and the circular economy

7. Kasper Lindskow
Exploring Digital News Publishing Business Models – a production network approach

8. Mikkel Mouritz Marfelt
The chameleon workforce:
Assembling and negotiating the content of a workforce

9. Marianne Bertelsen
Aesthetic encounters
Rethinking autonomy, space & time in today's world of art

10. Louise Hauberg Wilhelmsen
EU PERSPECTIVES ON INTERNATIONAL COMMERCIAL ARBITRATION

11. Abid Hussain
On the Design, Development and Use of the Social Data Analytics Tool (SODATO): Design Propositions, Patterns, and Principles for Big Social Data Analytics

12. Mark Bruun
Essays on Earnings Predictability

13. Tor Bøe-Lillegraven
BUSINESS PARADOXES, BLACK BOXES, AND BIG DATA: BEYOND ORGANIZATIONAL AMBIDEXTERITY

14. Hadis Khonsary-Atighi
ECONOMIC DETERMINANTS OF DOMESTIC INVESTMENT IN AN OIL-BASED ECONOMY: THE CASE OF IRAN (1965-2010)

15. Maj Lervad Grasten
Rule of Law or Rule by Lawyers?
On the Politics of Translation in Global Governance

16. Lene Granzau Juel-Jacobsen
SUPERMARKEDETS MODUS OPERANDI – en hverdagssociologisk undersøgelse af forholdet mellem rum og handlen og understøtte relationsopbygning?

17. Christine Thalsgård Henriques
In search of entrepreneurial learning – Towards a relational perspective on incubating practices?

18. Patrick Bennett
Essays in Education, Crime, and Job Displacement

19. Søren Korsgaard
Payments and Central Bank Policy

20. Marie Kruse Skibsted
Empirical Essays in Economics of Education and Labor

21. Elizabeth Benedict Christensen
The Constantly Contingent Sense of Belonging of the 1.5 Generation Undocumented Youth
An Everyday Perspective

22. Lasse J. Jessen
Essays on Discounting Behavior and Gambling Behavior

23. *Kalle Johannes Rose*
Når stifterviljen dør…
Et retsøkonomisk bidrag til 200 års juridisk konflikt om ejendomsretten

24. Andreas Søeborg Kirkedal
Danish Stød and Automatic Speech Recognition

25. Ida Lunde Jørgensen
Institutions and Legitimations in Finance for the Arts

26. Olga Rykov Ibsen
An empirical cross-linguistic study of directives: A semiotic approach to the sentence forms chosen by British, Danish and Russian speakers in native and ELF contexts

27. Desi Volker
Understanding Interest Rate Volatility

28. Angeli Elizabeth Weller
Practice at the Boundaries of Business Ethics & Corporate Social Responsibility

29. Ida Danneskiold-Samsøe
Levende læring i kunstneriske organisationer
En undersøgelse af læringsprocesser mellem projekt og organisation på Aarhus Teater

30. Leif Christensen
Quality of information – The role of internal controls and materiality

31. Olga Zarzecka
Tie Content in Professional Networks

32. Henrik Mahncke
De store gaver
- Filantropiens gensidighedsrelationer i teori og praksis

33. Carsten Lund Pedersen
Using the Collective Wisdom of Frontline Employees in Strategic Issue Management

34. Yun Liu
Essays on Market Design

35. Denitsa Hazarbassanova Blagoeva
The Internationalisation of Service Firms

36. Manya Jaura Lind
Capability development in an off-shoring context: How, why and by whom

37. Luis R. Boscán F.
Essays on the Design of Contracts and Markets for Power System Flexibility

38. Andreas Philipp Distel
Capabilities for Strategic Adaptation: Micro-Foundations, Organizational Conditions, and Performance Implications

39. Lavinia Bleoca
The Usefulness of Innovation and Intellectual Capital in Business Performance: The Financial Effects of Knowledge Management vs. Disclosure

40. Henrik Jensen
Economic Organization and Imperfect Managerial Knowledge: A Study of the Role of Managerial Meta-Knowledge in the Management of Distributed Knowledge

41. Stine Mosekjær
The Understanding of English Emotion Words by Chinese and Japanese Speakers of English as a Lingua Franca An Empirical Study

42. Hallur Tor Sigurdarson
The Ministry of Desire - Anxiety and entrepreneurship in a bureaucracy

43. Kätlin Pulk
Making Time While Being in Time
A study of the temporality of organizational processes

44. Valeria Giacomin
Contextualizing the cluster Palm oil in Southeast Asia in global perspective (1880s–1970s)

45. Jeanette Willert
Managers' use of multiple Management Control Systems: The role and interplay of management control systems and company performance

46. Mads Vestergaard Jensen
Financial Frictions: Implications for Early Option Exercise and Realized Volatility

47. Mikael Reimer Jensen
Interbank Markets and Frictions

48. Benjamin Faigen
Essays on Employee Ownership

49. Adela Michea
Enacting Business Models An Ethnographic Study of an Emerging Business Model Innovation within the Frame of a Manufacturing Company.

50. Iben Sandal Stjerne
Transcending organization in temporary systems Aesthetics' organizing work and employment in Creative Industries

51. Simon Krogh
Anticipating Organizational Change

52. Sarah Netter
Exploring the Sharing Economy

53. Lene Tolstrup Christensen
State-owned enterprises as institutional market actors in the marketization of public service provision: A comparative case study of Danish and Swedish passenger rail 1990–2015

54. Kyoung(Kay) Sun Park
Three Essays on Financial Economics

2017

1. Mari Bjerck
Apparel at work. Work uniforms and women in male-dominated manual occupations.

2. Christoph H. Flöthmann
Who Manages Our Supply Chains? Backgrounds, Competencies and Contributions of Human Resources in Supply Chain Management

3. Aleksandra Anna Rzeźnik
Essays in Empirical Asset Pricing

4. Claes Bäckman
Essays on Housing Markets

5. Kirsti Reitan Andersen
Stabilizing Sustainability in the Textile and Fashion Industry

6. Kira Hoffmann
Cost Behavior: An Empirical Analysis of Determinants and Consequences of Asymmetries

7. Tobin Hanspal
Essays in Household Finance

8. Nina Lange
Correlation in Energy Markets

9. Anjum Fayyaz
Donor Interventions and SME Networking in Industrial Clusters in Punjab Province, Pakistan

10. Magnus Paulsen Hansen
Trying the unemployed. Justification and critique, emancipation and coercion towards the 'active society'. A study of contemporary reforms in France and Denmark

11. Sameer Azizi
Corporate Social Responsibility in Afghanistan – a critical case study of the mobile telecommunications industry

12. Malene Myhre
The internationalization of small and medium-sized enterprises: A qualitative study

13. Thomas Presskorn-Thygesen
The Significance of Normativity – Studies in Post-Kantian Philosophy and Social Theory

14. Federico Clementi
Essays on multinational production and international trade

15. Lara Anne Hale
Experimental Standards in Sustainability Transitions: Insights from the Building Sector

16. Richard Pucci
Accounting for Financial Instruments in an Uncertain World Controversies in IFRS in the Aftermath of the 2008 Financial Crisis

17. Sarah Maria Denta
Kommunale offentlige private partnerskaber Regulering I skyggen af Farumsagen

18. Christian Östlund
Design for e-training

19. Amalie Martinus Hauge
Organizing Valuations – a pragmatic inquiry

20. Tim Holst Celik
Tension-filled Governance? Exploring the Emergence, Consolidation and Reconfiguration of Legitimatory and Fiscal State-crafting

21. Christian Bason
Leading Public Design: How managers engage with design to transform public governance

22. Davide Tomio
Essays on Arbitrage and Market Liquidity

23. Simone Stæhr
Financial Analysts' Forecasts Behavioral Aspects and the Impact of Personal Characteristics

24. Mikkel Godt Gregersen
Management Control, Intrinsic Motivation and Creativity – How Can They Coexist

25. Kristjan Johannes Suse Jespersen
Advancing the Payments for Ecosystem Service Discourse Through Institutional Theory

26. Kristian Bondo Hansen
Crowds and Speculation: A study of crowd phenomena in the U.S. financial markets 1890 to 1940

27. Lars Balslev
Actors and practices – An institutional study on management accounting change in Air Greenland

28. Sven Klingler
Essays on Asset Pricing with Financial Frictions

29. Klement Ahrensbach Rasmussen
Business Model Innovation The Role of Organizational Design

30. Giulio Zichella
Entrepreneurial Cognition. Three essays on entrepreneurial behavior and cognition under risk and uncertainty

31. Richard Ledborg Hansen
En forkærlighed til det eksisterende – mellemlederens oplevelse af forandringsmodstand i organisatoriske forandringer

32. Vilhelm Stefan Holsting
Militært chefvirke: Kritik og retfærdiggørelse mellem politik og profession

33. Thomas Jensen
Shipping Information Pipeline: An information infrastructure to improve international containerized shipping

34. Dzmitry Bartalevich
Do economic theories inform policy? Analysis of the influence of the Chicago School on European Union competition policy

35. Kristian Roed Nielsen
Crowdfunding for Sustainability: A study on the potential of reward-based crowdfunding in supporting sustainable entrepreneurship

36. Emil Husted
There is always an alternative: A study of control and commitment in political organization

37. Anders Ludvig Sevelsted
Interpreting Bonds and Boundaries of Obligation. A genealogy of the emergence and development of Protestant voluntary social work in Denmark as shown through the cases of the Copenhagen Home Mission and the Blue Cross (1850 – 1950)

38. Niklas Kohl
Essays on Stock Issuance

39. Maya Christiane Flensborg Jensen
BOUNDARIES OF PROFESSIONALIZATION AT WORK An ethnography-inspired study of care workers' dilemmas at the margin

40. Andreas Kamstrup
Crowdsourcing and the Architectural Competition as Organisational Technologies

41. Louise Lyngfeldt Gorm Hansen
Triggering Earthquakes in Science, Politics and Chinese Hydropower - A Controversy Study

2018

1. Vishv Priya Kohli
Combatting Falsifi cation and Counterfeiting of Medicinal Products in the E uropean Union – A Legal Analysis

2. Helle Haurum
Customer Engagement Behavior in the context of Continuous Service Relationships

3. Nis Grünberg
The Party -state order: Essays on China's political organization and political economic institutions

4. Jesper Christensen
A Behavioral Theory of Human Capital Integration

5. Poula Marie Helth
Learning in practice

6. Rasmus Vendler Toft-Kehler
Entrepreneurship as a career? An investigation of the relationship between entrepreneurial experience and entrepreneurial outcome

7. Szymon Furtak
Sensing the Future: Designing sensor-based predictive information systems for forecasting spare part demand for diesel engines

8. Mette Brehm Johansen
Organizing patient involvement. An ethnographic study

9. Iwona Sulinska
Complexities of Social Capital in Boards of Directors

10. Cecilie Fanøe Petersen
Award of public contracts as a means to conferring State aid: A legal analysis of the interface between public procurement law and State aid law

11. Ahmad Ahmad Barirani
Three Experimental Studies on Entrepreneurship

12. Carsten Allerslev Olsen
Financial Reporting Enforcement: Impact and Consequences

13. Irene Christensen
New product fumbles – Organizing for the Ramp-up process

14. Jacob Taarup-Esbensen
Managing communities – Mining MNEs' community risk management practices

15. Lester Allan Lasrado
Set-Theoretic approach to maturity models

16. Mia B. Münster
Intention vs. Perception of Designed Atmospheres in Fashion Stores

17. Anne Sluhan
Non-Financial Dimensions of Family Firm Ownership: How Socioemotional Wealth and Familiness Influence Internationalization

18. Henrik Yde Andersen
Essays on Debt and Pensions

19. Fabian Heinrich Müller
Valuation Reversed – When Valuators are Valuated. An Analysis of the Perception of and Reaction to Reviewers in Fine-Dining

20. Martin Jarmatz
Organizing for Pricing

21. Niels Joachim Christfort Gormsen
Essays on Empirical Asset Pricing

22. Diego Zunino
Socio-Cognitive Perspectives in Business Venturing

23. Benjamin Asmussen
Networks and Faces between Copenhagen and Canton, 1730-1840

24. Dalia Bagdziunaite
Brains at Brand Touchpoints A Consumer Neuroscience Study of Information Processing of Brand Advertisements and the Store Environment in Compulsive Buying

25. Erol Kazan
Towards a Disruptive Digital Platform Model

26. Andreas Bang Nielsen
Essays on Foreign Exchange and Credit Risk

27. Anne Krebs
Accountable, Operable Knowledge Toward Value Representations of Individual Knowledge in Accounting

28. Matilde Fogh Kirkegaard
A firm- and demand-side perspective on behavioral strategy for value creation: Insights from the hearing aid industry

29. Agnieszka Nowinska
SHIPS AND RELATION-SHIPS Tie formation in the sector of shipping intermediaries in shipping

30. Stine Evald Bentsen
The Comprehension of English Texts by Native Speakers of English and Japanese, Chinese and Russian Speakers of English as a Lingua Franca. An Empirical Study.

31. Stine Louise Daetz
Essays on Financial Frictions in Lending Markets

32. *Christian Skov Jensen*
Essays on Asset Pricing

33. Anders Kryger
Aligning future employee action and corporate strategy in a resource-scarce environment

34. Maitane Elorriaga-Rubio
The behavioral foundations of strategic decision-making: A contextual perspective

35. Roddy Walker
Leadership Development as Organisational Rehabilitation: Shaping Middle-Managers as Double Agents

36. Jinsun Bae
Producing Garments for Global Markets Corporate social responsibility (CSR) in Myanmar's export garment industry 2011–2015

37. Queralt Prat-i-Pubill
Axiological knowledge in a knowledge driven world. Considerations for organizations.

38. Pia Mølgaard
Essays on Corporate Loans and Credit Risk

39. Marzia Aricò
Service Design as a Transformative Force: Introduction and Adoption in an Organizational Context

40. Christian Dyrlund Wåhlin-Jacobsen
Constructing change initiatives in workplace voice activities Studies from a social interaction perspective

41. Peter Kalum Schou
Institutional Logics in Entrepreneurial Ventures: How Competing Logics arise and shape organizational processes and outcomes during scale-up

42. Per Henriksen
Enterprise Risk Management Rationaler og paradokser i en moderne ledelsesteknologi

43. Maximilian Schellmann
The Politics of Organizing Refugee Camps

44. Jacob Halvas Bjerre
Excluding the Jews: The Aryanization of Danish-German Trade and German Anti-Jewish Policy in Denmark 1937-1943

45. Ida Schrøder
Hybridising accounting and caring: A symmetrical study of how costs and needs are connected in Danish child protection work

46. Katrine Kunst
Electronic Word of Behavior: Transforming digital traces of consumer behaviors into communicative content in product design

47. Viktor Avlonitis
Essays on the role of modularity in management: Towards a unified perspective of modular and integral design

48. Anne Sofie Fischer
Negotiating Spaces of Everyday Politics: -An ethnographic study of organizing for social transformation for women in urban poverty, Delhi, India

2019

1. Shihan Du
ESSAYS IN EMPIRICAL STUDIES BASED ON ADMINISTRATIVE LABOUR MARKET DATA

2. Mart Laatsit
Policy learning in innovation policy: A comparative analysis of European Union member states

3. Peter J. Wynne
Proactively Building Capabilities for the Post-Acquisition Integration of Information Systems

4. Kalina S. Staykova
Generative Mechanisms for Digital Platform Ecosystem Evolution

5. Ieva Linkeviciute
Essays on the Demand-Side Management in Electricity Markets

6. Jonatan Echebarria Fernández
Jurisdiction and Arbitration Agreements in Contracts for the Carriage of Goods by Sea – Limitations on Party Autonomy

7. Louise Thorn Bøttkjær
Votes for sale. Essays on clientelism in new democracies.

8. Ditte Vilstrup Holm
The Poetics of Participation: the organizing of participation in contemporary art

9. Philip Rosenbaum
Essays in Labor Markets – Gender, Fertility and Education

10. Mia Olsen
Mobile Betalinger - Succesfaktorer og Adfærdsmæssige Konsekvenser

11. Adrián Luis Mérida Gutiérrez
Entrepreneurial Careers: Determinants, Trajectories, and Outcomes

12. Frederik Regli
Essays on Crude Oil Tanker Markets

13. Cancan Wang
Becoming Adaptive through Social Media: Transforming Governance and Organizational Form in Collaborative E-government

14. Lena Lindbjerg Sperling
Economic and Cultural Development: Empirical Studies of Micro-level Data

15. Xia Zhang
Obligation, face and facework: An empirical study of the communicative act of cancellation of an obligation by Chinese, Danish and British business professionals in both L1 and ELF contexts

16. Stefan Kirkegaard Sløk-Madsen
Entrepreneurial Judgment and Commercialization

17. Erin Leitheiser
The Comparative Dynamics of Private Governance
The case of the Bangladesh Ready-Made Garment Industry

18. Lone Christensen
STRATEGIIMPLEMENTERING: STYRINGSBESTRÆBELSER, IDENTITET OG AFFEKT

19. Thomas Kjær Poulsen
Essays on Asset Pricing with Financial Frictions

20. Maria Lundberg
Trust and self-trust in leadership identity constructions: A qualitative exploration of narrative ecology in the discursive aftermath of heroic discourse

21. Tina Joanes
Sufficiency for sustainability
Determinants and strategies for reducing clothing consumption

22. Benjamin Johannes Flesch
Social Set Visualizer (SoSeVi): Design, Development and Evaluation of a Visual Analytics Tool for Computational Set Analysis of Big Social Data

23. Henriette Sophia Groskopff Tvede Schleimann
Creating innovation through collaboration – Partnering in the maritime sector

24. Kristian Steensen Nielsen
The Role of Self-Regulation in Environmental Behavior Change

25. Lydia L. Jørgensen
Moving Organizational Atmospheres

26. Theodor Lucian Vladasel
Embracing Heterogeneity: Essays in Entrepreneurship and Human Capital

27. Seidi Suurmets
Contextual Effects in Consumer Research: An Investigation of Consumer Information Processing and Behavior via the Applicati on of Eye-tracking Methodology

28. Marie Sundby Palle Nickelsen
Reformer mellem integritet og innovation: Reform af reformens form i den danske centraladministration fra 1920 til 2019

29. Vibeke Kristine Scheller
The temporal organizing of same-day discharge: A tempography of a Cardiac Day Unit

30. Qian Sun
Adopting Artificial Intelligence in Healthcare in the Digital Age: Perceived Challenges, Frame Incongruence, and Social Power

31. Dorthe Thorning Mejlhede
Artful change agency and organizing for innovation – the case of a Nordic fintech cooperative

32. Benjamin Christoffersen
Corporate Default Models:
Empirical Evidence and Methodical Contributions

33. Filipe Antonio Bonito Vieira
Essays on Pensions and Fiscal Sustainability

34. Morten Nicklas Bigler Jensen
Earnings Management in Private Firms:
An Empirical Analysis of Determinants and Consequences of Earnings Management in Private Firms

2020

1. Christian Hendriksen
Inside the Blue Box: Explaining industry influence in the International Maritime Organization

2. Vasileios Kosmas
Environmental and social issues in global supply chains:
Emission reduction in the maritime transport industry and maritime search and rescue operational response to migration

3. Thorben Peter Simonsen
The spatial organization of psychiatric practice: A situated inquiry into 'healing architecture'

4. Signe Bruskin
The infinite storm: An ethnographic study of organizational change in a bank

5. Rasmus Corlin Christensen
Politics and Professionals: Transnational Struggles to Change International Taxation

6. Robert Lorenz Törmer
The Architectural Enablement of a Digital Platform Strategy

7. Anna Kirkebæk Johansson Gosovic
Ethics as Practice: An ethnographic study of business ethics in a multi-national biopharmaceutical company

8. Frank Meier
Making up leaders in leadership development

9. Kai Basner
Servitization at work: On proliferation and containment

10. Anestis Keremis
Anti-corruption in action: How is anti-corruption practiced in multinational companies?

11. Marie Larsen Ryberg
Governing Interdisciolinarity: Stakes and translations of interdisciplinarity in Danish high school education.

12. Jannick Friis Christensen
Queering organisation(s): Norm-critical orientations to organising and researching diversity

13. Thorsteinn Sigurdur Sveinsson
Essays on Macroeconomic Implications of Demographic Change

14. Catherine Casler
Reconstruction in strategy and organization: For a pragmatic stance

15. Luisa Murphy
Revisiting the standard organization of multi-stakeholder initiatives (MSIs): The case of a meta-MSI in Southeast Asia

16. Friedrich Bergmann
Essays on International Trade

17. Nicholas Haagensen
European Legal Networks in Crisis: The Legal Construction of Economic Policy

18. Charlotte Biil
Samskabelse med en sommerfugle-model: Hybrid ret i forbindelse med et partnerskabsprojekt mellem 100 selvejende daginstitutioner, deres paraplyorganisation, tre kommuner og CBS

19. Andreas Dimmelmeier
The Role of Economic Ideas in Sustainable Finance: From Paradigms to Policy

20. Maibrith Kempka Jensen
Ledelse og autoritet i interaktion - En interaktionsbaseret undersøgelse af autoritet i ledelse i praksis

21. Thomas Burø
LAND OF LIGHT: Assembling the Ecology of Culture in Odsherred 2000-2018

22. Prins Marcus Valiant Lantz
Timely Emotion: The Rhetorical Framing of Strategic Decision Making

23. Thorbjørn Vittenhof Fejerskov
Fra værdi til invitationer - offentlig værdiskabelse gennem affekt, potentialitet og begivenhed

24. Lea Acre Foverskov
Demographic Change and Employ-ment: Path dependencies and institutional logics in the European Commission

25. Anirudh Agrawal
A Doctoral Dissertation

26. Julie Marx
Households in the housing market

27. Hadar Gafni
Alternative Digital Methods of Providing Entrepreneurial Finance

28. Mathilde Hjerrild Carlsen
Ledelse af engagementer: En undersøgelse af samarbejde mellem folkeskoler og virksomheder i Danmark

29. Suen Wang
Essays on the Gendered Origins and Implications of Social Policies in the Developing World

30. Stine Hald Larsen
The Story of the Relative: A Systems-Theoretical Analysis of the Role of the Relative in Danish Eldercare Policy from 1930 to 2020

31. Christian Casper Hofma
Immersive technologies and organizational routines: When head-mounted displays meet organizational routines

32. Jonathan Feddersen
The temporal emergence of social relations: An event-based perspective of organising

33. Nageswaran Vaidyanathan
ENRICHING RETAIL CUSTOMER EXPERIENCE USING AUGMENTED REALITY

2021

1. Vanya Rusinova
The Determinants of Firms' Engagement in Corporate Social Responsibility: Evidence from Natural Experiments

2. Lívia Lopes Barakat
Knowledge management mechanisms at MNCs:
The enhancing effect of absorptive capacity and its effects on performance and innovation

3. Søren Bundgaard Brøgger
Essays on Modern Derivatives Markets

4. Martin Friis Nielsen
Consuming Memory: Towards a conceptualization of social media platforms as organizational technologies of consumption

05. Fei Liu
Emergent Technology Use in Consumer Decision Journeys: A Process-as-Propensity Approach

06. Jakob Rømer Barfod
Ledelse i militære højrisikoteams

07. Elham Shafiei Gol
Creative Crowdwork Arrangements

08. Árni Jóhan Petersen
Collective Imaginary as (Residual) Fantasy: A Case Study of the Faroese Oil Bonanza

09. Søren Bering
"Manufacturing, Forward Integration and Governance Strategy"

10. Lars Oehler
Technological Change and the Decomposition of Innovation:
Choices and Consequences for Latecomer Firm Upgrading: The Case of China's Wind Energy Sector

11. Lise Dahl Arvedsen
Leadership in interaction in a virtual context:
A study of the role of leadership processes in a complex context, and how such processes are accomplished in practice

12. Jacob Emil Jeppesen
Essays on Knowledge networks, scientific impact and new knowledge adoption

13. Kasper Ingeman Beck
Essays on Chinese State-Owned Enterprises:
Reform, Corporate Governance and Subnational Diversity

14. Sönnich Dahl Sönnichsen
Exploring the interface between public demand and private supply for implementation of circular economy principles

15. Benjamin Knox
Essays on Financial Markets and Monetary Policy

16. Anita Eskesen
Essays on Utility Regulation: Evaluating Negotiation-Based Approaches inthe Context of Danish Utility Regulation

17. Agnes Guenther
Essays on Firm Strategy and Human Capital

18. Sophie Marie Cappelen
Walking on Eggshells: The balancing act of temporal work in a setting of culinary change

19. Manar Saleh Alnamlah
About Gender Gaps in Entrepreneurial Finance

20. Kirsten Tangaa Nielsen
Essays on the Value of CEOs and Directors

21. Renée Ridgway
Re:search - the Personalised Subject vs. the Anonymous User

22. Codrina Ana Maria Lauth
IMPACT Industrial Hackathons: Findings from a longitudinal case study on short-term vs long-term IMPACT implementations from industrial hackathons within Grundfos

23. Wolf-Hendrik Uhlbach
Scientist Mobility: Essays on knowledge production and innovation

24. Tomaz Sedej
Blockchain technology and inter-organizational relationships

25. Lasse Bundgaard
Public Private Innovation Partnerships: Creating Public Value & Scaling Up Sustainable City Solutions

26. Dimitra Makri Andersen
Walking through Temporal Walls: Rethinking NGO Organizing for Sustainability through a Temporal Lens on NGO-Business Partnerships

27. Louise Fjord Kjærsgaard
Allocation of the Right to Tax Income from Digital Products and Services: A legal analysis of international tax treaty law

28. Sara Dahlman
Marginal alternativity: Organizing for sustainable investing

29. Henrik Gundelach
Performance determinants: An Investigation of the Relationship between Resources, Experience and Performance in Challenging Business Environments

30. Tom Wraight
Confronting the Developmental State: American Trade Policy in the Neoliberal Era

31. Mathias Fjællegaard Jensen
Essays on Gender and Skills in the Labour Market

32. Daniel Lundgaard
Using Social Media to Discuss Global Challenges: Case Studies of the Climate Change Debate on Twitter

33. Jonas Sveistrup Søgaard
Designs for Accounting Information Systems using Distributed Ledger Technology

34. Sarosh Asad
CEO narcissism and board composition: Implications for firm strategy and performance

35. Johann Ole Willers
Experts and Markets in Cybersecurity On Definitional Power and the Organization of Cyber Risks

36. Alexander Kronies
Opportunities and Risks in Alternative Investments

37. Niels Fuglsang
The Politics of Economic Models: An inquiry into the possibilities and limits concerning the rise of macroeconomic forecasting models and what this means for policymaking

38. David Howoldt
Policy Instruments and Policy Mixes for Innovation: Analysing Their Relation to Grand Challenges, Entrepreneurship and Innovation Capability with Natural Language Processing and Latent Variable Methods

2022

01. Ditte Thøgersen
Managing Public Innovation on the Frontline

02. Rasmus Jørgensen
Essays on Empirical Asset Pricing and Private Equity

03. Nicola Giommetti
Essays on Private Equity

04. Laila Starr
When Is Health Innovation Worth It? Essays On New Approaches To Value Creation In Health

05. Maria Krysfeldt Rasmussen
Den transformative ledelsesbyrde – etnografisk studie af en religionsinspireret ledelsesfilosofi i en dansk modevirksomhed

06. Rikke Sejer Nielsen
Mortgage Decisions of Households: Consequences for Consumption and Savings

07. Myriam Noémy Marending
Essays on development challenges of low income countries: Evidence from conflict, pest and credit

08. Selorm Agbleze
A BEHAVIORAL THEORY OF FIRM FORMALIZATION

09. Rasmus Arler Bogetoft
Rettighedshavers faktisk lidte tab i immaterialretssager: Studier af dansk ret med støtte i økonomisk teori og metode

10. Franz Maximilian Buchmann
Driving the Green Transition of the Maritime Industry through Clean Technology Adoption and Environmental Policies

11. Ivan Olav Vulchanov
The role of English as an organisational language in international workplaces

12. Anne Agerbak Bilde
TRANSFORMATIONER AF SKOLELEDELSE - en systemteoretisk analyse af hvordan betingelser for skoleledelse forandres med læring som genstand i perioden 1958-2020

13. JUAN JOSE PRICE ELTON
EFFICIENCY AND PRODUCTIVITY ANALYSIS: TWO EMPIRICAL APPLICATIONS AND A METHODOLOGICAL CONTRIBUTION

14. Catarina Pessanha Gomes
The Art of Occupying: Romanticism as Political Culture in French Prefigurative politics

15. Mark Ørberg
Fondsretten og den levende vedtægt

16. Majbritt Greve
Maersk's Role in Economic Development: A Study of Shipping and Logistics Foreign Direct Investment in Global Trade

17. Sille Julie J. Abildgaard
Doing-Being Creative: Empirical Studies of Interaction in Design Work

18. Jette Sandager
Glitter, Glamour, and the Future of (More) Girls in STEM: Gendered Formations of STEM Aspirations

19. Casper Hein Winther
Inside the innovation lab - How paradoxical tensions persist in ambidextrous organizations over time

20. Nikola Kostić
Collaborative governance of inter-organizational relationships: The effects of management controls, blockchain technology, and industry standards

21. Saila Naomi Stausholm
Maximum capital, minimum tax: Enablers and facilitators of corporate tax minimization

22. Robin Porsfelt
Seeing through Signs: On Economic Imagination and Semiotic Speculation

23. Michael Herburger
Supply chain resilience – a concept for coping with cyber risks

24. Katharina Christiane Nielsen Jeschke
Balancing safety in everyday work - A case study of construction managers' dynamic safety practices

25. Jakob Ahm Sørensen
Financial Markets with Frictions and Belief Distortions

26. Jakob Laage-Thomsen
Nudging Leviathan, Protecting Demos - A Comparative Sociology of Public Administration and Expertise in the Nordics

27. Kathrine Søs Jacobsen Cesko
Collaboration between Economic Operators in the Competition for Public Contracts: A Legal and Economic Analysis of Grey Zones between EU Public Procurement Law and EU Competition Law

28. Mette Nelund
Den nye jord – Et feltstudie af et bæredygtigt virke på Farendløse Mosteri

29. Benjamin Cedric Larsen
Governing Artificial Intelligence – Lessons from the United States and China

30. Anders Brøndum Klein
Kollektiv meningsdannelse iblandt heterogene aktører i eksperimentelle samskabelsesprocesser

31. Stefano Tripodi
Essays on Development Economicis

32. Katrine Maria Lumbye
Internationalization of European Electricity Multinationals in Times of Transition

33. Xiaochun Guo
Dynamic Roles of Digital Currency – An Exploration from Interactive Processes: Difference, Time, and Perspective

34. Louise Lindbjerg
Three Essays on Firm Innovation

35. Marcela Galvis Restrepo
Feature reduction for classification with mixed data: an algorithmic approach

36. Hanna Nyborg Storm
Cultural institutions and attractiveness – How cultural institutions contribute to the development of regions and local communities

37. Anna-Bertha Heeris Christensen
Conflicts and Challenges in Practices of Commercializing Humans – An Ethnographic Study of Influencer Marketing Work

38. Casper Berg Lavmand Larsen
A Worker-Centered Inquiry into the Contingencies and Consequences of Worker Representation

39. Niels le Duc
The Resource Commitment of Multinational Enterprise R&D Activities

40. Esben Langager Olsen
Change management tools and change managers – Examining the simulacra of change

TITLER I ATV PH.D.-SERIEN

1992

1. Niels Kornum
Servicesamkørsel – organisation, økonomi og planlægningsmetode

1995

2. Verner Worm
Nordiske virksomheder i Kina
Kulturspecifikke interaktionsrelationer ved nordiske virksomhedsetableringer i Kina

1999

3. Mogens Bjerre
Key Account Management of Complex Strategic Relationships
An Empirical Study of the Fast Moving Consumer Goods Industry

2000

4. Lotte Darsø
Innovation in the Making
Interaction Research with heterogeneous Groups of Knowledge Workers creating new Knowledge and new Leads

2001

5. Peter Hobolt Jensen
Managing Strategic Design Identities
The case of the Lego Developer Network

2002

6. Peter Lohmann
The Deleuzian Other of Organizational Change – Moving Perspectives of the Human

7. Anne Marie Jess Hansen
To lead from a distance: The dynamic interplay between strategy and strategizing – A case study of the strategic management process

2003

8. Lotte Henriksen
Videndeling
– om organisatoriske og ledelsesmæssige udfordringer ved videndeling i praksis

9. Niels Christian Nickelsen
Arrangements of Knowing: Coordinating Procedures Tools and Bodies in Industrial Production – a case study of the collective making of new products

2005

10. Carsten Ørts Hansen
Konstruktion af ledelsesteknologier og effektivitet

TITLER I DBA PH.D.-SERIEN

2007

1. Peter Kastrup-Misir
Endeavoring to Understand Market Orientation – and the concomitant co-mutation of the researched, the re searcher, the research itself and the truth

2009

1. Torkild Leo Thellefsen
Fundamental Signs and Significance effects
A Semeiotic outline of Fundamental Signs, Significance-effects, Knowledge Profiling and their use in Knowledge Organization and Branding

2. Daniel Ronzani
When Bits Learn to Walk Don't Make Them Trip. Technological Innovation and the Role of Regulation by Law in Information Systems Research: the Case of Radio Frequency Identification (RFID)

2010

1. Alexander Carnera
Magten over livet og livet som magt
Studier i den biopolitiske ambivalens