Orchestra conductors are concerned with the collective emotions of their organization. Conductors influence emotions in a visual, embodied and open way in order to create a common understanding of goals. Zooming out to other organizations we face the question: are there specific techniques through which organizational members, like conductors, manage emotions? More specifically, what is the role of the human body in the emotions experienced during strategy work? If organizational strategies are embodied in managers who have risen to the top while pursuing a particular set of strategic initiatives, then in what way are strategies embodied in these managers?

The strategy work of middle managers forms the core empirical context of this thesis. I engaged in intense video shadowing of middle managers at a national public service broadcasting organization. The middle managers faced the challenging situation of acting as ‘linking pins’ between the organizations strategy and the day-to-day workings of the creative media professionals. Through video analysis I study the multimodal (verbal and embodied) practices through which middle managers channel the top-down and bottom-up flows in the strategy process.

The findings of this thesis are threefold. First, I highlight that we need to pay increased attention to the affective reactions occurring during strategy work. Second, I argue for an embodied perspective on the creative idea generation process, and propose that we need a multimodal lens to appreciate how groups are energized into committing to novel strategic ideas. Finally, I suggest a methodological tool-kit for analyzing video data and extracting theoretically meaningful patterns.
Philip Gylfe

Choreographing Strategy
An Exploration into Middle Managers’ Embodied Interaction

Helsinki 2017
Choreographing Strategy: An Exploration into Middle Managers’ Embodied Interaction

Key words: middle managers, video methods, embodied interaction, emotions, idea generation

© Hanken School of Economics & Philip Gylfe, 2017

Philip Gylfe
Hanken School of Economics
Department of Management and Organization
P.O.Box 479, 00101 Helsinki, Finland

Hanken School of Economics

ISSN-L 0424-7256
ISSN 0424-7256 (printed)
ISSN 2242-699X (PDF)
ACKNOWLEDGEMENTS

The first course I took at Hanken started in the following way. We were forced to read 100 key organization theory papers as a pre-reading and summarize them. I was overwhelmed. We had doctoral classes where three doctoral students and three professors engaged in fiery discussion. Coming straight out of the investment banking industry where I had been running big excel sheets on merger deals, I was truly surprised about this new work setting, and I soon realized that I was in for an amazing ride.

A great thank you goes to my honored opponent and pre-examiner Joep Cornelissen and to my pre-examiner Johanna Moisander. Joep I value your careful attention to my manuscript and your sharp comments on methodology and theory building. Johanna thank you for your valuable input in the process and for your comments on multimodality.

My supervisor Saku has had the greatest influence on my work. Saku has provided sharp guidance to my work combined with a warm welcoming to ongoing discussions. I am grateful for his hospitality in Montréal. I cannot imagine a better supervisor. He has provided me with accommodation, red wine and the finest barbecue meals on Oxford Avenue; and of course perfect scholarly guidance. Our co-authoring efforts have been crowned by walks in the forests of Mount-Royal in Montréal and by a bottle of champagne during “Manuscript Central”.

A great thank you also goes to my second supervisor and co-author, Professor Henri Schildt and Professor Eero Vaara. Henri you have been an unlimited source of inspiration and you have provided me with lots of theoretical brain food. Eero, working with you has been a great learning experience, you have been my model for excellent scholarship. I also wish to thank Professor Liisa Välikangas. I am grateful for your guidance towards the end of the dissertation process.

I am grateful for the opportunity to work with excellent scholars such as Henrika Franck, Curtis LeBaron and Robin Holt. Curtis, thank you for the lengthy conversations over Skype, and for being an excellent teacher and co-author. You have had enormous influence on my thesis and on my skills as a researcher. Henrika, thank you for all the hours we have spent twisting and turning our empirical data, working with you has always been enjoyable. And thank you Robin for opening my eyes to a variety of theoretical lenses.

I also wish to thank my international friends for insightful comments on earlier work. Thank you Derek Harmon for excellent feedback on earlier versions and exciting talks on organization theory and life in academia on Montana Avenue in L.A. Thank you Peer Fiss for hosting me at USC in L.A., and Paul Adler for excellent feedback on my work. Thank you Spencer Harrison for great comments on an earlier version.

It would have been a dull journey without the Nuuksio Radiers. Thank you, Henrika, Kari, Mikko and Virpi for the many dinners and enjoyable conversations. Ph.D. work without support from this social crowd would most likely have been impossible.

Other important colleagues during my Ph.D. journey include: Frank, Janne, Jouni, Nina, Paul, Tuomas K. I truly appreciate the scholarly discussions we have had and hope we will be able to continue these conversations for a long time.
I have also learned a lot from the new people I have met. Thank you Kathrin, Natalia and Timo for wonderful conversations.

And the community people: Alexei, Annamari, Hertta, Jennie, Pauli, Louna, Catarina, Sanne, Tricia, Martin F, Sofia, Vita, Paula, Edyta, Erik B, Tuomas L, Jonna, Charlotta, Olga, Daniil, Silvia, Maria, Markus. Life at FLO would have been nothing without you all!

A special thanks goes to Hanna Järvinen from the University of the Arts Helsinki for taking time to introduce me to work on choreography.

I am also grateful to Inkku Björkman, Kristiina Mäkelä, Mats Ehrnrooth, Jennie Sumelius, Adam Smale and Matte Höglund, and the rest of the IB crowd for taking me on board and introducing me to academia.

I appreciate the openness of the Nordic Broadcaster and I am thankful for the access granted to the ongoing strategy work.

I am grateful for financial input from Liikesivistys Rahasto, Marcus Wallenberg Stiftelse, the Ella and Georg Ehrnrooth Foundation and the Hanken Foundation.

Then there is life support. Thank you for supporting me along this journey: my parents, Moca and Putte, and my talented and wonderful sister Sandra and great surfbuddy Ilkka.

Of course, the greatest thank you of all goes to my wife Liisa and to our amazing children Ingrid and Axel. Liisa, you are the spark of life and happiness, and the joy we experience together is what made this thesis possible.

Yours truly,

Philip Gylfe

June 2017, Helsinki, Finland.
CONTENTS

1 Introduction ................................................................................................................ 1
   1.1 Motivation of study ............................................................................................. 2
   1.2 Thesis structure ................................................................................................... 2
2 Middle management work, affect and idea generation ............................................ 3
   2.1 Middle manager work and the strategy process ................................................ 3
       2.1.1 Middle manager work and group affect ...................................................... 5
       2.1.2 The middle manager’s influence on idea generation processes .......... 6
3 Embodied interaction and movement ....................................................................... 9
   3.1 Embodied interaction from a sensemaking and sociomaterial perspective ...... 9
   3.2 Embodied interaction and cognitive foundations ............................................. 10
   3.3 Choreographing strategy through body movement ......................................... 11
4 Video shadowing and analysis ................................................................................. 15
   4.1 In the field: gaining video access to middle managers’ strategy work ............. 15
   4.2 From collecting video data in the field to the first steps of the analysis .......... 16
   4.3 Modes of analyzing and communicating video data ........................................ 18
   4.4 A reflexive note on climbing the theoretical ladder ......................................... 19
5 Summary of articles .................................................................................................. 21
   5.1 Essay #1 How do strategic ideas take off: Affective dynamics in strategic sensemaking ......................................................................................................................... 21
   5.2 Essay #2 Managing evaluation and energy in creative idea generation: Bringing in the body ........................................................................................................................................... 22
   5.3 Essay #3: Video Methods in Strategy Research: Focusing on embodied cognition ............................................................................................................................................... 23
   5.4 Essay #4 Choreographies we strategize by. Using video methodology in the study of embodiment ........................................................................................................................................ 24
6 Discussion: Embodied interaction and paths for future research in strategy ......... 26
REFERENCES .................................................................................................................... 28

APPENDICES

Appendix 1  Video methods in strategy research: Focusing on embodied cognition 38
FIGURES

Figure 1  Middle manager practices as conceptualized by Floyd & Wooldridge (1992) ................................................................. 4
Figure 2  Phases in the video analysis of patterns of interaction ......................... 19
Figure 3  Thesis structure ......................................................................................... 21
1 INTRODUCTION

“Music has just as much to do with movement and body as it does with soul and intellect.”

Esa-Pekka Salonen - Principal Conductor and Artistic Advisor of the Philharmonia Orchestra in London and Conductor Laureate of the Los Angeles Philharmonic

Mastery in any discipline entails a combination of intense headwork with heavy bodywork. Glenn Gould’s teacher Alberto Guerrero stressed that excellence lay primarily in the physical aspect of playing the piano (Greene, 2015). Gould, who at first seemed a misfit with his slump or hunch over his Bach interpretations, eventually profited from odd style and his lightning touch interpretation, and became one of the great Bach interpreters. Another virtuoso, Richard Wagner, went for a walk in the woods after excessive work on an opera; he was tired and as he took a nap the rushing forest sounds gave him a feeling of drowning. Wagner woke up and composed a key element to his masterpiece Das Rheingold. Similarly, Daniel Kahneman and Amos Tversky took multiple walks in the mountains of California, designing their now classic experiments on economic decision making (Kahneman, 2011). Certainly heavy headwork was put into these achievements, yet these masters were attentive to the learning experiences provided by the body and they skillfully appreciated the impulse provided by the body for their oeuvre.

What is the role of the human body in strategy work? Looking at the body in management is not new, Fredrick Winslow Taylor, who coined scientific management, argued that by looking at the time and motion the one best way of performing work could be found. He analyzed body movement carefully and developed, for example, specific body guidelines for how to shovel 21 lbs. efficiently. More recently, in his seminal work “The Nature of Managerial Work” Henry Mintzberg (1973), hinted at the importance of embodied interaction as he studied verbal communication, movement across physical places, presence of subordinates and top managers in meetings etc., describing what managers did in their daily work. He analyzed how managers attended to mail, spoke on the phone, engaged in unscheduled and scheduled meetings and took observational tours. It is intuitive that verbal and embodied communication varies as the manager moves from the CEOs office to an open landscape office filled with creative professionals. Hence the analysis of embodied interaction is likely to be an important add-on to a focus on spoken words, as embodied framing practices, such as subtle torso movements and head nods, are crucial devices for changing the key in a conversation (Goffman, 1974). In a passing remark Burgelman (1991: 243, added emphasis) notes of Intel: “organizational strategy [---] is embodied in the managers who rose to (or stayed at) the top while pursuing a particular set of strategic initiatives”. Burgelman’s point opens up an unexplored aspect of strategy: in what way is strategy embodied in the managers?

In recent strategy-as-practice research attention has been paid to the sociomaterial side of strategizing (tools, technologies, artifacts) (Orlikowski & Scott 2008; Balogun et al., 2014; Le & Spee, 2015). Importantly, the role of the human body is tightly embedded in the sociomaterial perspective on strategizing (Le & Spee, 2015: 583). Similarly, the sensemaking perspective has seen advances in the study of gestures used in, for example, entrepreneurial activity (Cornelissen, Clarke & Cienki, 2012), and in connection to artifacts such as prototypes (Stigliani & Ravasi, 2012). Furthermore, studies on the role of emotions in strategy processes (Liu & Maitlis, 2014) have carefully analyzed embodied signals of emotions expressed during strategy meetings. In
general, there seems to be a growing interest in the role of the human body in organization studies. It is towards these advances that this thesis sets out to study embodied interaction in strategy, and does so, in particular, by focusing on the embodied interaction of middle managers.

The strategy work of middle managers forms the core empirical context for this thesis. I engaged in intense video shadowing of four middle managers at a Nordic national public broadcasting organization. I followed each middle manager in her/his daily work from the morning until the afternoon for two consecutive weeks video recording as much of their work as possible. The middle managers faced the challenging situation of acting as 'linking pins' (Floyd & Wooldridge, 1992) between the organizations strategy and the day-to-day workings of the creative media professionals. Through video analysis I study the multimodal (verbal and embodied) practices through which middle managers channel the top-down and bottom-up flows in the strategy process.

1.1 Motivation of study

This thesis project started from my interest in how middle managers participate in the strategy process. I wanted to understand what the practices were through which middle managers adapted the strategy that a top-management had formed to their local contexts. My interest in middle manager strategy work was coupled with a fascination for how members of an organization used their bodies as they interacted. How did people use their body along the side of verbal communication as they engaged in strategy work, made decisions, communicated with stakeholders etc.?

1.2 Thesis structure

This kappa provides an in-depth tour of the three core elements of this thesis; middle manager strategy work, embodied interaction and movement analysis, and video methods. The theory section is split into two parts; first I review existing work in middle management research and stress the usefulness of an embodied lens, and second I present embodied interaction and movement literature as a solution to understanding multimodal involvement in the strategy process. I finish the kappa with suggestions for further research on the topics of strategy, embodiment and video.

The four essays attached to this thesis shed further light on the way middle managers engage in strategy work and how such strategy work involves embodied interaction. The first essay “How strategic ideas take off: Affective dynamics in strategic sensemaking” explores the role of affect in in the strategy process. The second essay, entitled “Managing evaluation and energy in creative idea generation: Bringing in the body” takes an embodied perspective on the creative idea generation process. The third essay “Video methods in strategy research: Focusing on embodied cognition” is a methodological exploration presenting a three stage tool-kit for analyzing strategy work through video data. The fourth essay, “Choreographies we strategize by. Using video methodology in the study of embodiment” reviews literature on embodied movement and charts implications for middle management research.
2 MIDDLE MANAGEMENT WORK, AFFECT AND IDEA GENERATION

As organizations grow they need middle managers as a layer that holds the organization together. Organizations with few members do often not see middle managers as particularly value adding, whereas large organizations stress that middle managers are paramount to fostering organizational change. Researching middle managers has its roots in the 1970’s when Mintzberg challenged the classical distinction between the conception and implementation of strategy and argued that conception to a large extent occurs during implementation (Mintzberg, 1978; Mintzberg 1994), and that implementation is predominately performed by middle managers. Equally important for middle management research is Nonaka’s (1988, 1991) argument that middle managers, who engage in “middle-up-down” management are the source for knowledge creation in the organization. According to Nonaka, middle managers are crucial to the organization as they combine both explicit and implicit knowledge in the pursuit of strategic change.

In this thesis I adopt a strategy-as-practice perspective on the work of middle managers. I am thus not focusing so much on what the formal strategies are, but instead on what the strategists do as they practice strategy (Vaara & Whittington, 2012; Whittington, 1996). Rather than assuming that a strategy is formulated in the head of a CEO, I zoom in on the detail (Nicolini, 2009) of the strategists’ work as they are involved in the strategy process (Mintzberg, 1973; Johnson, Melin, Whittington, 2003). Although a strategy-as-practice perspective could imply a variety of theoretical lenses, I connect primarily to the perspectives of sensemaking and sociomateriality as I study embodied middle manager strategy work. In the following section I review various advances in middle management research and highlight the areas of affect, idea generation and evaluation as paths for future research.

2.1 Middle manager work and the strategy process

“As 'linking pins,' middle managers take actions that have both upward and downward influences on strategy formation” Floyd & Wooldridge (1992:154)

How do middle managers in practice link between the top management and the operational level. The metaphor that describes middle managers as “pins”, is not necessarily the best metaphor as it implies that managers are fixed or static entities, not performing a particular role. Through a brief review of middle management research I challenge this view, and argue that we need to regard middle managers as moving actors who use both spoken words and body language in their daily work.

Middle management research focuses on the specific problem of managing in-between the organization’s top-management and the employees of the organization. Middle managers are pressured by the top-management team to implement strategy, while making sure that the employees of the organization succeed on the operational level. From the 1950s to the 1970s management theories focused on the conception, planning and positioning of an organization’s strategy (Mintzberg, Ahlstrand & Lampel, 1998). I adopt a more contemporary approach, the emergent strategy perspective (Mintzberg, 1978), and look at the practice of how middle managers are involved in strategy emergence. I follow Mintzberg’s critique of the formal process of strategy (Mintzberg, 1994), and argue that strategy is a process emerging from within the organization (Mintzberg, 1978; Mintzberg & Waters, 1985) and a process that fosters a learning organization.
In line with Minztberg’s (1978) emergent strategy perspective, middle manager work has been conceptualized successfully by Floyd & Wooldridge (1992), who elaborated on both upward and downward roles of middle managers. First, upward roles by the middle management include the activities of “championing alternatives” and “synthesizing information”. Thus, middle managers are tasked with providing divergent ideas to the top management while also integrating information that is relevant to the top management. Second, downward actions involve “facilitating adaptability” and “implementing deliberate strategy”. The implementation of deliberate strategy captures the classical perspective on strategy where middle managers are tasked with getting buy-in from employees to a specific strategy, whereas the practice of facilitating adaptability refers to how middle managers (together with teams) creatively adjust top-down initiatives in local contexts. The following figure is a [slightly edited] reproduction of Floyd & Wooldridge’s (1992) argument.

![Middle manager practices as conceptualized by Floyd & Wooldridge (1992)](image)

Three middle manager phenomena have received specific attention: role conditions, issue selling and championing, and lateral middle manager work. First, the condition for specific roles has received careful attention with regards to the question of what enables agency. For example, Currie & Procter (2005) studied how inconsistent expectations from the top management created uncertainty amongst middle managers’ actions. Also, Mantere (2008) studied the enabling conditions for middle manager role enactment and found that reciprocal actions (for example, the signaling of trust) from the top management were key. Second, middle managers’ issue selling and championing has been a core focus area and research in this tradition has looked predominately at relations with the top management. Through issue selling middle managers exercise upward influence, manage impressions, package their actions and manage timing in the strategy process (Dutton and Ashford, 1993; Dutton, Ashford, et al., 1997; Dutton et al., 2001). Mantere (2005) argues that individual ownership of strategy is key to enabling work by strategic champions who go beyond their operative responsibilities. Third, the type of lateral social interactions that middle managers engage in have been conceptualized as particularly important for fostering cognitive schema change across different professional groups in the organization (Balogun & Johnson, 2004).

While research provides valuable insights on enabling conditions, issue selling activities and lateral networking, it is likely that we miss a crucial piece of the puzzle of how strategy emerges if we do not incorporate the affective dynamics that constitute
middle manager work. How would research on middle manager phenomena be augmented if the emotional experiences of middle managers and their groups would be accounted for? We should ask: how do middle managers influence the affective states of their colleagues as they sell a novel idea to the top management? Are there affective patterns in how middle manager peers interact as they foster cognitive schema change successfully? Are there affective processes that centralize or diffuse understandings of strategy? Taking an affective perspective on middle manager work involves a shift from attending to cognitive schemas of middle managers to the emotional practices driving strategic change.

2.1.1 Middle manager work and group affect

The emotional perspective has been suggested as an important avenue for future research in middle management, and this perspective serves as an excellent link between the roles of the middle management and an embodiment perspective. In an extensive review of middle management research Rouleau, Balogun & Floyd (2015) suggest that a potential fruitful path for future research would be the study of sociomateriality, embodiment and emotions. The importance of the emotional perspective on middle manager strategy practice has also been hinted at in classical middle manager work. For example, Floyd & Lane (2000:163) mention the “emotional tone of competence modification and deployment processes” as meriting attention. Moreover, in a passing remark Westley (1990:341) suggests that organizational coalitions “embody organizational routines and hence action”.

I follow recent emotions developments in top management strategy research (Liu & Maitlis, 2014), and look at both the spoken and embodied signals of affect as I study middle manager affect. Instead of focusing on emotions, moods, empathy etc. I look at the underlying states of feeling positive, negative or energized or enervated (Russell, 2003). My approach to the emotional lens is twofold. First, I look at attributed affect. Following Russell's classical circumplex model of affect (1980), which has been applied actively in organization research (Bartel & Saavdera, 2000; Barsade, 2002), a person’s attributed affect is conceived through the dimensions of positive/negative valence and high/low arousal. In contrast to looking at core affect (Russell, 2003), an abstract feeling of valence and arousal; I focus on attributed affect, i.e. the middle manager's affect attributed to the strategic issue that s/he is working with. Second, I am interested in processes of affect sharing (Kelly & Barsade, 2001; Collins et al., 2013), i.e. the processes of how emotions become shared in groups. This includes processes of simple emotional contagion (Hatfield, Cacioppo & Rapson 1994); but may also include other processes such as behavioral entrainment, vicarious affect and affective induction (Kelly & Barsade, 2001). Looking at attributed affect is of course not new, but I argue that we are missing a crucial lexicon for describing how the human body reflects and transfers attributed affect.

Already a legitimate mode of emotions analysis in organization research, Russell (1980) circumplex model of affect continues to be a useful tool for categorizing emotions (Barsade, 2001; Liu & Mailits, 2013). Although the circumplex model by itself does not include body characteristic equivalents to the positions on the arousal-valence circumplex, efforts have been made at body mapping of emotions (Russell & Snodgrass (1997) see also the BAP coding scheme developed by Dael, Mortillano & Scherer (2012)). Also there are sophisticated methods for Facial Action Coding building on Paul Ekman’s work. Yet, it should be noted that research using naturally occurring video ethnographic data are often better of using existing coding schemes as inputs in an abductive analysis process (Liu & Maitlis, 2013). Thus, I argue that researchers in the
qualitative tradition need to be sensitive to embodied signals occurring in their naturally occurring data, and couple these inductive insights with existing embodiment/emotion findings in order to make sense of organizational practice.

In middle management research, studies have looked at the emotional experiences of the middle managers as they struggle with the demands of the top-management (Huy 2002; Vuori & Huy; 2015). In the emotions tradition, Vuori & Huy (2015), for example, analyzed how shared fear amongst middle managers towards internal groups lead middle managers to reduce their actions of information synthesizing. Vuori & Huy used verbal data as their primary source in the analysis of shared fear. However, I argue that their study would be augmented through an appreciation of how body movement reflected fear and stirred fear in the group. Were there processes through which body movement caused affect? Did middle managers have their arms crossed as they leaned back in their chairs in strategy meetings? Did they gaze away from their peers in session where they should have shared their doubts? Did they direct their bodies and gestures towards a PowerPoint slide that presented future actions, without attending to concerns that employees had? The meanings of such body movements are of course context dependent, but fear-associated body movement may have a contagious effect on the group and could thus be a mechanism through which middle managers spread fear.

The combined focus on middle manager work and theories on affect lead me to the following research question. This research question is tackled specifically in essay #1:

**Research question 1:** How do the affective dynamics of sensemaking impact whether strategic ideas can take off or not? How can sensegiving influence these affective dynamics?

### 2.1.2 The middle manager’s influence on idea generation processes

The middle manager’s influence on idea generation is a suitable context for studying embodied interaction. How do middle managers use body movement to enable idea generation? Are there embodied movements that drain enthusiasm and others that kick-start heated discussion? Teachers know that verbally requesting students to brainstorm has little effect unless an embodied intervention is performed: chairs and tables need to be rearranged, some groups should brainstorm in the hallway, others are forced to sit in circles etc. It is evident that such embodied interventions matter.

The middle manager’s influence on the idea generation process consists of two categories of practice: energy management practices and evaluation practices. First, from a strategy process perspective, middle managers need to create the necessary group energy to fuel idea generation as they interact with their teams and “facilitate adaptability”. Although middle management research does not explicitly label middle manager activity as “creative work”, participation in idea generation has been mentioned as an important task (Wooldridge et al., 2008). Wooldrige et al., (2008:1212) go on to suggest that future research should focus on “how and when middle managers contribute to the identification or generation of new ideas...”. Thus, I look at the multimodal practices that middle managers use as they participate in, the often emotional, idea generation processes and influence the level of group energy.

Creativity literature regards idea generation as an inherently interactive process (Amabile, 1988; Woodman, Sawyer & Griffin, 1993), which contains recurrent phases of autonomy and control (Harrison & Rouse, 2015), and the level of affect has been found to be a core factor influencing creative output (Amabile et al., 2005). I follow
Amabile's (2005) work on affect, and argue that the management of group energy (Quinn & Dutton, 2005) is key to successful idea generation. Teams need to be energized in order to get started with brainstorming, and managers often engage in "scene setting" (Lingo & O'Mahoney, 2010) as they increase motivation in group members. In managing energy team leaders need to communicate multimodally (Quinn & Dutton, 2005:43), thus the embodied mode of communication is particularly powerful. A study by Elsbach & Kramer (2003) on Hollywood pitch meetings illustrates the importance of embodied interaction in creative processes. The authors found that experts, to a large extent, used physical cues to match "pitchers" with seven creative and uncreative prototypes. Further, providing evidence of influence of embodiment on idea generation, Elsbach, Barr & Hargadon (2005) suggest that "problem understandings" (a key component of creative processes) are influenced by the physical contexts such as the spatial arrangement of the workers. Thus, following the growing interest in embodiment in creativity literature I suggest that energy management is an important embodied practice through which middle managers influence idea generation.

Second, in idea generation processes middle managers face the complex task of evaluating novel strategic ideas. Following Floyd & Wooldridge’s original conceptualization of middle manager work as facilitating adaptability; a lot of middle manager work involves assessing how ideas fit with the organizational strategy and vice versa. Burgelman (1991) described middle managerial practices as consisting of the crucial component “internal experimentation”. Managing such internal experimentation is not an easy task in the face of conflicting evaluation criteria. Yet, as middle managers are involved in practices such as championing and facilitating adaptability, they need to apply evaluation criteria as they foster an emergent strategy. The act of evaluating means that middle managers balance the, often conflicting, sub-unit criteria with top management criteria. Performing such an evaluation is an emotional balancing act for the middle manager (Huy, 2002). Sub-units might want to evaluate change initiatives based on product quality or technical feasibility, whereas the top-management might value cost cutting, digitalization or audience attention. Evaluation criteria are thus often incommensurate on the abstract level, but practically ideas are evaluated according to multiple incommensurate criteria (Espeland & Stevens, 1998; Rindova et al., 2011). Such balancing between criteria is not new to middle management research. Studies have looked at how middle managers might opt for strategy implementation that is suboptimal from the organizations perspective as managers have a bias for subunit preference (Walsh, 1988; Ketokivi & Castaner, 2004). Results show that middle management involvement in strategic planning alleviates subunit biases and increases motivation (Ketokivi & Castaner, 2004).

I study the evaluation practices used by middle managers from two multimodal perspectives in Essay #2. First, I analyze the micro-practices of evaluation management as middle managers skillfully introduce evaluation criteria in operational level teams. I build on Harvey & Kou’s (2013) insight that evaluation practices do not constrain idea generation, but act as a necessary fuel for idea generation and appear throughout the idea generation process. Second, I look at how the successful management of evaluation fosters nascent commitment to emergent ideas. I follow research by Harrison & Rouse (2015) on the process of co-construction during feedback, and look at how commitment is fostered through the collective evaluation of novel ideas. Towards this end, I argue that middle managers do not act as the sole evaluators of what constitutes a creative adoption of a strategic issues, instead such evaluations are performed in synchrony with the employees.
While we know that middle managers facilitate adaptability in their daily work, the specific mechanisms such as energy management and idea evaluation remain uncharted. I suggest that a multimodal lens is crucial for understanding how these practices are performed. Specifically, the subtle body movements through which group energy is drained, increased or maintained are likely to constitute an important practice through which middle managers enable the emergence of a novel strategy.

Research concerning the middle managers role in idea generation and evaluation leads me to the following research question. Essay #2 addresses this research question in detail:

Research question #2: What are the embodied and discursive practices used by team leaders to manage evaluations and organizational energy in idea generation contexts, and what are the implications of those practices?
3 EMBODIED INTERACTION AND MOVEMENT

If middle manager strategy work is looked at from a multimodal perspective, how do we approach the question of identifying meaningful embodied interaction? How can we render movement patterns relevant for strategy? Is there a specific vocabulary that would help us understand how middle managers enact strategy through movement and how the human body, entwined with other materiality, stirs reactions in other people? I argue that, an embodied cognition perspective and dance theoretical lens provide a useful backdrop for the categorization of embodied movement.

3.1 Embodied interaction from a sensemaking and sociomaterial perspective

Embodied interaction is best understood in the context of the literatures on sensemaking and sociomateriality. I argue that embodied interaction can be conceived of as an additional mode, alongside verbal utterances, of sensemaking. Also embodied interaction is a natural extension of sociomateriality research, where embodied movement is the glue through which tools, locations, spatial arrangements and things (Balogun et al., 2014) are held together in strategic interaction. In the next paragraphs, I clarify how the moving body of the middle manager reflects a sociomaterial mode of sensemaking in the strategy process.

Sensemaking, defined as “the ongoing retrospective development of plausible images that rationalize what people are doing” (Weick, Sutcliff & Obstfeld, 2005) has given strategy-as-practice researchers a useful lens in the analysis of shared understandings (Balogun & Johnson 2004; 2005; Mantere, Schildt & Sillince, 2012; Cornelissen & Schildt, 2015). The way people rationalize shared understanding has been approached through a variety of cognition related terms such as frames, maps, mental models etc. (see Kaplan (2011) for an extensive review). A common denominator for sensemaking research is the assumption that people enact their environment by producing and reproducing interpretations (Porac et al., 2011; Cornelissen & Schildt, 2015). Recent developments consider sensemaking not as a coolly cognitive psychological construct informing us of what goes on in the informant’s head, but as a concept capturing social meaning making (Weick, Sutcliff & Obstfeld, 2005), aimed to explain how we extract cues collectively (Stigliani & Ravasi, 2012) in natural situations infused with emotion (Maitlis, Vogus & Lawrence, 2013; Cornelissen, Mantere & Vaara 2014). The social process of sensemaking (admittedly loaded with a variety of meanings as reviewed in Cornelissen & Schildt, (2015)), involves both sensegiving (Gioia & Chittipeddi, 1991) and sensebreaking (Mantere, Schildt & Sillince, 2012), thus illustrating the processual nature of the sensemaking concept (Gioia et al, 1994). The interactive process of sensemaking takes forms such as: guided, fragmented, restricted and minimal (Maitlis, 2005) and members of an organization have been found to engage in “framing contests” as they attempt to sell their perspectives (Kaplan, 2008). With interest in the interactive processes sensemaking, research has started to look at the material and situated forms of sensemaking (Stigliani & Ravasi, 2012; Cornelissen & Schildt, 2015). Recognizing that sensemaking is a process where participants communicate through multiple modalities, the human body is now the focus of recent research on sensemaking and sensegiving (Maitlis & Sonenschein, 2010). Cornelissen, Clarke and Cienki (2012), for example, look at how entrepreneurs use metaphors in speech and gesture as they signal agency, control, predictability and taken-for-grantedness of a novel venture. Metaphorical gestures are a subset of the non-linguistic modalities (Cornelissen et al., 2008) through which members of an organization make sense.
While sensemaking research has long looked at the verbal mode of communicating, the embodied modality provides a fascinating avenue for future research.

The nascent attention in sensemaking literature to the human body coincides with a rise in sociomaterial research. The sociomaterial perspective on sensemaking in strategy has gained considerable traction lately (Balogun et al., 2014; Le & Spee 2015; Dameron, Le, LeBaron, 2016). Looking at the sociomaterial in organizations has been highlighted as useful for the understanding of how “tools, locations and spatial arrangements configure strategic interaction between bodies and things” (Balogun et al., 2014:193). It is interesting to ask: how is the material moving body part of strategy, and how is the material body intertwined with other material forms? Sociomateriality research looks at the role of technologies (Orlikowski & Scott, 2008), tools (Spee and Jarzabkowski, 2009; Kaplan, 2011; Jarzabkowski and Kaplan 2014), the importance of space (Jarzabkowski et al., 2015), meaning entwined in artifacts (Pratt & Rafaeli, 1997; Pratt & Rafaeli 2001; Heracleous & Jacobs, 2008; Vaara, Sorsa & Pa’lli, 2010); and the human body is one of the modalities looked at either directly or indirectly. It is important to note that research of an ethnomethodological tradition has also paid careful attention to the human body and how it directs attention in a material setting (LeBaron et al., 2009, LeBaron and Streeck et al., 2000). From an ethnomethodological perspective Hindmarsh & Pilnick (2007) provide a fascinating account of how anaesthesists’ team work is facilitated through “intercorporeal knowing”. The authors describe how detailed gestural practices enable anaesthetist teams to function in surgical theatres. It is fair to say that the overarching idea that the human body “accomplishes” with materiality is most evident in studies on meaning making through artifacts. For example, Stigliani & Ravasi (2012) find that the “articulating” and “elaborating” phases of sensemaking included both verbal and material practices where participants were active through visually sketching and grouping ideas (2012:1252). Also, in fascinating research Jarzabkowski, Burke and Spee (2015) look at how the strategists use their bodies along with artifacts as they construct enabling spaces for three forms of strategy work: private, collaborative and negotiating. In an other study, Sorsa, Pälli & Mikkola (2014) explore performance appraisal interviews and argue that gestures are used in concert with material artifacts in order to make strategy more concrete. In sum, while such studies have recognized the human body, these efforts have not been on categorizing movement practices through which the body accomplishes strategy. Thus, it is against this research stream that I set my research and explore the role of body movement in strategizing.

Although sensemaking and sociomateriality research has attended to the role of the human body, the body has not been viewed as a modality stirring emotions in the audience. A practice lens has been taken on the body, but the underlying mechanism of how the body affects have not been explicated. I argue however that, the human body should be seen as a central rhetorical device, loaded with potential to excite, drain, surprise and motivate the audience. To explain the underlying mechanism of how the human body affects we need a vocabulary of how movement affects. It is towards this end that I turn to embodied cognition, dance theory, and work on how movement is choreographed to impact emotions. Research in embodied cognition and dance theory provides a useful source through which we can describe meaningful movement.

3.2 Embodied interaction and cognitive foundations

It is impossible to pinpoint the theoretical roots of embodiment research as it has been investigated in a variety of fields. For example, the body has been looked at in psychology (Kendon, 1980), social psychology (Schwarz, 1998), sociology (Goffmann,
It is important to notice that the body has been approached in diverse ways in organization studies too, of which the embodied interaction perspective taken in this research is only a subset. Scholars of a more critical tradition often conceptualize bodies as “wholes”, avoiding the practice of overanalyzing the organism and its sub entities (Deleuze & Guattari, 1980). Critical scholars have, in particular, approached the body from a power or social history perspective and provided accounts of disciplined bodies in organizations.

In this thesis I adopt a perspective on embodied interaction that critiques the traditional Cartesian view on cognition and leans on the embodied cognition view that sees the body, not as an external object, but as a living animated body. The body not only impacts our thinking, such as when we have a headache, but our body thinks as it moves. The words we use, illustrate the importance of our body for cognition. The cognitive linguists Lakoff & Johnson (1980) provide important building blocks for the comprehension of the embodied roots of our linguistic concepts, arguing that we use metaphors to link abstract concepts with the embodied world. Interestingly, they argue that metaphors ultimately “bottom out” into embodiment, hence embodiment can be viewed as an important source domain of our cognition. Cognition can thus been conceptualized as being rooted in the human body (Shapiro, 2011). An embodied cognition perspective critiques the view that cognitive processes are algorithmic and that thoughts exist systematically in our minds. Instead, proponents of this perspective argue that our bodies enable thinking. Niedenthal (2007) found that the simple task of holding a pen between our teeth activated facial muscles associated with smiling and influenced how participants processed information. The embodied cognition perspective is relevant for the investigation of social interaction in, for example, strategy work as it implies that we need to refocus from trying to gain access to managers’ inner thoughts, and focus instead on the verbal and embodied expressions. In line with the idea that our cognition is importantly situated in the social context (Schwarz, 1998), the interaction in a strategy meeting can be conceived of as a social process where the embodied signals of other people constitute cognition in the group. It should be noted that the focus in this thesis is not on the type of embodied source domains referred to in the use of verbal embodied metaphors, an important topic by itself, but on meaningful embodied movement (metaphorical or not). In this thesis, the focus is on the physical modality itself that includes embodied interaction such as gestures, gazes, level of proximity, use of voice etc.; thus adding a crucial embodied dimension to our existing understanding of sensemaking and emotional expressions defining strategy practices.

Such an embodied interaction perspective leads us to the question of what constitutes meaningful embodiment during strategy work? How can we describe the way practitioners move their bodies as they direct attention in groups? In order to answer these questions I introduce discourse from dance research and argue that such a discourse is helpful for understanding the mechanisms through which embodiment matters.

### 3.3 Choreographing strategy through body movement

Middle managers obviously use rhetoric as they talk about strategy, but body movement remains an uncharted modality that can fuel or drain the energy in a strategy meeting. Body movement is not only a tool for persuasion, but a form of acting that has implications for the emotions experienced by the group as a whole. I introduce dance research as a useful source for understanding the choreographies through which managers transmit meaning and groups experience strategy. Two movement practices
are of particular importance. First, of importance to strategy work is the idea of synchrony in movement, i.e. getting the team members to imitate each other or move symmetrically. Through embodied synchrony individuals start following the embodied movement of the group and emotions become contagious (Hatfield et al. 1994; Wiltermuth & Heath, 2009). The second movement practice is about how middle managers use embodied anchoring movements as they signal a novel direction of attention. For example, middle managers contrast or foreground their message by directing the attention of team members through pointing towards a novel idea on the white board and gazing towards the employees. Synchrony and anchoring are different movement practices. Synchrony is about imitation and symmetry, whereas anchoring refers to a change in framing. Before moving ahead with a detailed explanation of the practices of synchrony and anchoring, I define the terms “choreography” and “movement”.

Choreography can be defined as the structuring of movement (Foster, 2011), i.e. the sequencing and progression of movement. The level of detail in choreography varies from broad scripts guiding action to the detailed account of movement of parts of the body. Dance research and practitioners of choreography have looked at structured movement for centuries. Choreography literally means “movement writing/notation”, and originally choreography was a profession of dance notation. Guidelines originate from 15th century Italian dance movement patterns, 1930’s ballet movement systems, to Rudolf Laban’s movement analysis in the 1940’s, and more contemporary embodied cognition and culture perspectives (Ruyter, 1999; Reynolds & Reason, 2012). A review of theoretical perspectives on choreography is beyond the scope of this kappa (see Ruyter 1999; Foster 2011; Reynolds & Reason 2012 for extensive reviews and, Järvinen (2009) for an excellent genealogical reflection). Certainly other disciplines, such as anthropology and sociology have dealt with patterned movement as well, but these descriptions are generally not about the “structuring of movement”. Bateson and Mead (1947) for example included the analysis of movement patterns in their study of Balinese rituals, and Goffman (1974) paid attention to embodied framing practices where individuals perform subtle movements such as head nods as they change the key of a conversation. Yet, I draw primarily on dance research as work in this tradition has embodied movement as a core focus, and I outline choreography and movement as key concepts of for this thesis.

Interestingly, dance studies emphasize that choreography can be preformed by multiple actors. The choreographer is not only a person, but can take multiple shapes: for example, office buildings choreograph behavior of employees, birds choreograph migration and strategists choreograph implementation. Choreography thus captures a set of movement decisions that are either influenced by taken-for-granted assumptions, invented in the spur of the moment, or carefully selected (Foster, 2011:4). Like discursive practices, choreography is set in cultural values underlying the daily lives of practitioners. While a long history of working together in an organization influences conduct, there is occasional space for the articulation of idiosyncratic re-interpretation of the status quo through variation in choreography. Examples of choreography in organizations includes situations where a managers moves in a patterned way as she/he presents a new strategy, patterns through which groups move as they brainstorm around a new product, or instances where the sales team moves in ways that signal confidence as they pitch their new service to client. In should be noted that choreography, as it is most often used in dance, is an “apparatus of capture” (Deleuze & Guattari, 1980), charged with a political ideal of preserving the dancing body. The primary focus of this thesis however is not to outline subjectivities and power relations, but to describe patterns occurring in strategic management (often infused with multi-
level emotions), thus on some occasion the use of the term choreography may seem inappropriate.

Choreographies (irrespective of the choreographer) consist of movement. The concept of ‘movement’ captures the use of some of the possible actions of the human body; such as gesturing, bending, extending, twisting, turning etc. (Adshead et al., 1987) If we close our eyes, we will have a sense of the position of our body. “Kinaesthesia” describes how we as embodied humans sense the movement of our body. In the 1940’s dance theorist Rudolf Laban argued that we sense our body through the dimensions of position in space, weight, flow and timing (Maletic, 1987). Laban also argued that certain movements pulled the group together (centrality) or pushed the group a part (peripherality) (Maletic, 1987:67). An important interactive characteristic of movement is that it triggers reactions in those around us. Dance theory refers to this process as “kinaesthetic empathy”, i.e. how one feels another’s feelings through movement perception (Foster, 2011). The process of kinesthetic empathy is the cornerstone of this doctoral thesis as it opens up how particular corporeal movements produce emotional responses in the viewer. Research on how movement conveys emotion has gone through a variety of phases. The charting of meaningful movement has shifted from a Delsartian disciplining of the body into “correct” postures in the 19th century (Ruyter, 1999), through an exploration of how the nerve sensors in the muscles provide information on the body’s movement by the perceptual psychologist Gibson in the mid 20th century (Foster, 2011:116), towards a medical “mirror neuron perspective” of how movement triggers empathic reaction in audiences (Reynolds & Reason, 2012). Recent dance research (Reynolds & Reason, 2012) critiques the classical view that conceives movement as a universal reflection of a specific emotion that disregards cultural specificity. Obviously, a gesture in Italy does not signal the same if it is used in Finland. Yet some movements can be described as having universal meaning, such as making oneself small vs. large in expressions of weakness or strength. Dance research acknowledges such variety in cultural contexts, and does not apply a universal vocabulary for movement, each movement description is based on the cultural context. The genre of ballet offers an extensive lexicon, but this is strictly tied to commonalities in movement meaning and aesthetics. In sum, meaningful movement is always meaningful only in a specific setting. Potential examples of meaningful movement in an organizational context include; pointing towards a novel strategy on the white board, leaning back in frustration after strategy implementation alternatives have been discussed, or getting up from ones chair in enthusiasm as a novel variation of a strategy is suggested.

I argue that synchrony and anchoring are two important movement practices exercised in organizations. First, body synchronization is a common practice through which a sense of cohesion is formed. In the practice of dance, cohesion occurs as members imitate movements (Randall & Reason, 2012). The synchronization, imitation or symmetry in movement is a cohesive device in dance and is frequently used in, for example, classical ballet to create a sense of harmony. If twenty dancers on stage perform the same triple step “chassé” the sensation of gliding is going to be more powerful. The idea is that affect spreads throughout a group as a specific movement is imitated across the group. It is important to note that in dance performances (such as classical ballet), movements are choreographed to stir emotions in the audience, and often the feelings of the dancers are often not of relevance. However in this thesis I look at how imitated movement causes feelings in the group. The groups are thus both the dancers and the audience.
Repetition is different from synchrony. While synchrony refers to symmetry at a point in time, repetition is about performing a specific movement several times. Depending on the nature of movement, repetition can thus reinforce synchrony. Thus, coherence is formed as members repeat movements, and move in rhythmic patterns over a period of time. Such repetition may act as a centripetal force for the group, pulling the group together, and creating a sense of a common identity. Armies and churches are organizations that make active use of body synchrony and repetition through practices of marching and singing. In the context of middle manager work the synchronization of movement is, for example, used to stimulate a mood for brainstorming (important for the task of facilitating adaptability of strategy). Managers may, for example, repeatedly move to the back of the room, sit down, lean back in their chairs and signal a “big picture” perspective on the project that the team is working on. As explained in essay #2, team members synchronize their behavior and adopt similar relaxed posters and gaze in the same direction. The whole team moves in a synchronized manner as members follow the posture of the leader, and thus the group comes to share the same level of emotional valence and arousal in relation to the strategic ideas.

Second, through the practice of anchoring a group member directs the attention to a novel interpretation in the meeting. This could be done by for example foregrounding a novel movement from previous movement. In dance theory a novel interpretation in a choreography is reflected through variation in the movement dynamics, the line of movement or the placement of stress (Adshead et al., 1987). Whereas synchrony is concerned with imitation and unity, anchoring directs the groups attention towards a novel direction. Movements are thus at this stage not mimicked, but instead characterized by variation and reflection, conveying the unique voice of a dancer (Foster, 1986: 66). Anchoring movements resonate with Goffman’s explanation of framing and the change in key (Goffman, 1974), which describes how changes in conversation are signaled through subtle head or posture movements, or changes in voice. In contrast to pulling the group together, anchoring movements pull the group in a particular novel direction. In an organizational context embodied anchoring breaks the flow of actions, directs the attention of group members towards a novel idea through pointing, shifting their torso, physically moving towards a target such as a white board. Anchoring movements in strategy meetings introduce novelty (see essay #2), and signal a change in conversation. Such anchoring movements may also involve individuals focusing attention towards a novel artifact such as a prototype (e.g. Stigliani & Ravasi, 2012), or people may use their hands in a creative way to indicate a strategic direction. For example, in an analysis of architects’ group interaction Le Baron (1998) found that architects formed a novel understanding, or “anchored” their attention, through the performance of a “roof gesture” that captured the main idea of the creative project.

There are a variety of organizational contexts that benefit from a choreography perspective. There is clearly untapped potential in the analysis and importance of embodied synchrony and anchoring in teams working in surgical theatres, flight decks, restaurants etc. i.e. places where the requirement of embodied coordination is paramount. Although research has begun to pay attention to the role of off-site strategy activities, workshops, management events etc. (Healey et al., 2015) and associated organizational ceremonies, the importance of embodied synchrony and anchoring, and connected shifts of framing, has been untapped. Similarly, movement patterns are likely to be crucial for the understanding of how organizational identities are constructed and maintained (see for example Glynn, 2000). Towards this end, the question of movement stirs emotions is likely to be of relevance to many of today’s organizations where body movement still receives little attention.
4 VIDEO SHADOWING AND ANALYSIS

Following the chapters on the embodied ways in which the middle manager is involved in strategy process I continue with the methods challenge of how we can capture such multimodal involvement. I elaborate on video analysis as a useful method for approaching the embodied interaction of middle managers.

4.1 In the field: gaining video access to middle managers’ strategy work

Video data allows us revisit the field, re-experiencing an observed meeting and video data provides researchers with the opportunity to re-analyze interaction as it happened. Visual analysis is quickly gaining popularity in the field on management and organization studies (Ray & Smith, 2012; Meyer et al., 2013), and the use of video data has proved an indispensable source for the analysis of practices (see e.g. Liu & Maitlis, 2013). As a cornerstone of this thesis, I review and develop video methods as a central analysis tool for strategy practices. Video data allows the researcher to pick up on details in interaction that would otherwise be missed if the researcher only relied on audio recordings. Needless to say, video data can be used in ways ranging from zoomed-in analysis of facial expressions in controlled environments (e.g. Facial Action Coding Scheme coding) to naturally occurring interaction analysis (e.g. LeBaron, 1998). Although precise coding of embodied details in controlled environments may provide increased reliability, I focus on the advantages and challenges of using video data recorded from naturally occurring interaction.

The researcher faces two main challenges when negotiating video access in the field. First, depending on how sensitive the organizational work is to researcher scrutiny the researcher needs to engage in footwork as she/he negotiates video access to key informants. A useful access strategy is to identify organizational gatekeepers (Hammersley & Atkinson, 1983), and gain their agreement with regards to the research and to consequently use their assistance in further snowball sampling. During snowball sampling the researcher evaluates spaces, people and occasions (Hammersley & Atkinson, 1983: 52) where video recording of interaction is likely to inform the research question at hand. Second, as identified by Mintzberg (1973) and Czarniawska (2007:26) a challenge with observing or shadowing informants is the exclusion from confidential activities. Such exclusion is inevitably amplified with the introduction of video recording. To alleviate this problem researchers may interview key informants about the occurred events after restricted sessions have been held and build trust with informants by investing time shadowing them. The more familiar the organization grows with the researcher, the more likely it is that video access will be granted.

Video access at the broadcaster was not easy. In order to gain access to the spaces, people and occasions that were relevant to my interest in embodied interaction and middle manager strategy work I pursued the following three steps. First, together with a colleague we met with the strategy department at the broadcaster and negotiated a research program that addressed the interests of the broadcaster as well as our research interests. Second, with the help of the strategy department we met with heads of divisions who assisted us in selecting informants from divisions that would be comfortable with being shadowed in their daily activities. Aware of the selection bias, we relied on the organization guiding our selection of informants (Hammersley & Atkinson, 1983: 50) for video shadowing. By snowballing into the organization top-down we ended up with a sample of strategic champions (Mantere, 2005), as these were the most willing to have their work analyzed by researchers. Third, I met with each shadowed middle manager and negotiated a two-week shadowing period. The timing of
the shadowing was negotiated with the middle managers, taking into account my interests in strategy work and their perception of when strategy work was most present in their daily activities. These three steps allowed me to get closer to the work that proved relevant to my interest. Once access had been granted, the challenges of hands-on shadowing and informants’ reactions to the presence of a video camera still had to be faced.

Video shadowing middle managers into meetings, lunches, and corridor conversations necessitated constant renegotiation of access and explaining of the research project. Recording was further challenged as new people constantly enter the scene. Both Mintzberg (1973:103) and Czarniawska (2007:27) tackle the issue of a Hawthorne effect during shadowing and observation. I see this as a valid critique of video shadowing, yet I attempted to alleviate informant window-dressing by reappearing in similar organizational settings time and again until the informants grew tired of me and proceeded with their daily work. The weekly team meetings I observed consisted of strategy implementation issues that had to be tackled that specific day, so even if middle managers did their best as I observed them, the problems that they worked with were naturally occurring. Considering the intrusive nature of video recording and possible negative reactions from people in the field, prolonged observation of the same constellation of people decreased informants’ attention towards me as a researcher. Another technique would be to use multiple cameras during interaction (Heath et al., 2010:52), and thereby reduce the need to move the camera during interaction. A sensitive microphone on the video camera, is also a crucial technological feature that allows one to capture conversations at the other end of the room without disturbing conversations. In addition to the video recording of interaction, shadowing allowed me pursue several informal interviews (Heath et al., 2010) as the middle managers were eager to discuss the occurred events with me.

Field notes collected during video shadowing were an indispensable means for early analysis (Jarzabkowski et al., 2015). During video shadowing I wrote a log book of all the activities that were going on, and after each day I produced a memo summarizing the observed activities. The notes, marked with time codes, were the key access point to the video data.

**4.2 From collecting video data in the field to the first steps of the analysis**

The challenge of understanding what is relevant in the data is an ongoing issue for the video researcher. I had some preliminary assumptions of the structure of the strategy work of middle managers as I began shadowing, but allowed categories to form as I video shadowed informants. In his seminal piece “Nature of Managerial Work” Mintzberg (1973) used structured observation as a method, categorizing work according to phone calls, desk work, scheduled meetings etc. With less focus on the “right categories” (Czarniawska, 2007), I kept my research interest in mind and categorized the collected data according to operative activities that seemed relevant to my theoretical interest (e.g. digital strategy implementation, youth strategy brainstorming, talks with the strategy department etc). My overall focus was on understanding micro-interaction of middle managers during strategy work, thus I did not aim for the ethnographic ideal of “going native”, but focused instead on activity that was deemed (together with the participants) as topical for my research interest. The categorized shadowing data thus served as the raw data for the research articles pursued in this thesis. Many of the “strategy conversations” were useful for essay #1 investigating the role of affect in the strategy process, while many of the “brainstorming sessions” served as empirical resources for essay #2 pursuing the study of evaluation
and energy in idea generation. All four essays in this thesis present some level of empirical video analysis. Although the analysis between the two empirical papers (essay #1 on affect and essay #2 on idea generation) differs on how embodied interaction was extracted, the preparatory categorization of empirical data was similar. It should be noted that as each essay takes a different theoretical lens on the phenomena of middle managerial strategy work, data categorizations in the subsequent analysis phases differ.

In the first stage of the analysis I engaged in open coding (Strauss & Corbin, 1999) as I navigated through the video data with the assistance of my field notes. Depending on the research project, categories such as “digitalization strategy”, “brainstorming intensely” and “talking about youth strategy” were created. As I categorized my data I created video trailers that compiled clips from the different sections of the data. At this stage I strove to keep the names of the categories close to the in-vivo language used by participants (Corely & Gioia, 2004). The categorization and detailed analysis of video in traditional software such as Nvivo was complicated by the lack of the software’s ability to quickly skim through larger amounts of video data. The advantage of creating video trailers in editing software such as Final Cut was that it allowed me to quickly jump back to the original content to see the broader interaction context.

In the second stage of the categorization of video I engaged in axial coding (Strauss & Corbin, 1999) as I moved back and forth between the categories created in the open coding phase and the theory relevant to the research question. This is the stage where the different research essays diverge, as I specify the analysis based on the relevant theories. I created a second set of axial video trailers based on the video clips arranged during open coding. This allowed me to form higher order themes that were relevant to the specific research question. The axial video trailers were thus labeled “idea generation kick-started”, “unsuccessful sensegiving”, “commitment to novel ideas” etc. Thus I ended up with categories of empirical data that were associated with each of the specific research essays. The most relevant axially coded sections were transcribed, denoting the spoken language, types of embodied movement and relevance of materiality (Jarzabkowski et al., 2015). The set of video trailers that were created in the axial coding phase allowed me to quickly check for validity of an empirical argument by reviewing the empirical context in which the coding was set.

Once the theory informed categories were created I proceeded by analyzing the patterns in speech and embodiment occurring during these second order video trailers. I added clips to the second order categories until I reached theoretical saturation (Jarzabkowski et al., 2015), i.e. noticed that additional clips did not alter my understanding of the role of speech and embodiment in the second order themes. I avoided retrofitting the data (Mantere & Ketokivi, 2013) to theoretical solutions and triangulated across the data to ensure I captured a variety of spaces, people and occasions for the analysis of verbal and embodied interaction. Both of the empirical essays in this thesis followed this process in the analysis of video material.

One advantage of basing the coding on video data is that the visual analysis can be cross checked within the research team. The availability of video data thus allows fellow researchers, both at the head-work and text-work stage of the process (Smets et al., 2014), to revisit the field and re-experience how the meeting room or corridor discussion unfolded. Frequent team-based re-evaluation of the theoretical arguments, ensured that the argued for patterns of interaction were justified with respect to the empirical data.
4.3 Modes of analyzing and communicating video data

The use of video data has allowed researchers to analyze embodied movement patterns, which would be difficult to capture with traditional field notes or audio recordings (Heath et al., 2011). Bateson and Mead’s (1942) photographic study into the Balinese culture can be seen as an early entry into video analysis. They did not have video cameras, but compensated by analyzing and reporting multiple sequences of images as they focused on embodied conduct during, for example a meditation ritual (1942:70). They analyzed gazes, gestures and shifts in postures in detail by displaying the reoccurring nature of embodied rituals and how Balinesians interacted with each other.

Video has been used across disciplines: anthropologists have looked at details of interaction (Erickson and Mohatt, 1982), psychologists have paid attention to coherent units of interaction (e.g. Scheflen, 1973; Kendon, 1990), researchers of a conversation analytical tradition have video recorded interaction as an extension to the rigorous analysis of talk (e.g. Goodwin, 1994) and dance research has used video to look at how movement evokes empathic reactions (Randall & Reason, 2012). Video and the analysis of the visual has a long tradition in adjacent disciplines, but has only recently been applied in management and strategy research (e.g. Ray & Smith, 2012; Bell & Davison, 2013; Meyer et al., 2013; Liu & Maitilis, 2014; Sorsa, Pälli & Mikkola, 2014; Toraldo et al., 2016; Zundel et al., 2016; Hindmarsh & Llewellyn, 2016). In the following section, I outline a three-stage video analysis procedure (for an extended methods elaboration see essay #3). The suggested “detailing”, “sequencing” and “patterning” stages of analysis form a tool-kit (see Figure 2) that allows the researcher to handle large amounts of video data and to build meaningful inferences about organizational level phenomena from micro-interactional data.

First, in “detailing” (step 1 in Figure 2) the researcher analyzes the embodied orientation and attention directing behavior of participants in a single frame of video. The single frame, or frame grab, is selected based on markings made in the researchers field notes and based on the “video trailers” generated in the axial coding phase. The axial video trailers captured, for example, reoccurring moments of top-down strategy implementation or moments where idea generation was initiated. Detailing could for example capture a middle manager closing the lid of her/his laptop in frustration. Such an important instance in the interaction is labeled as an “apex frame” and tagged in the video editing software.

Second, in “sequencing” (step 2 in Figure 2) the researcher pays attention to how participants move right before and after the key moment identified in the previous detailing phase. It is thus through the analysis of movement that we add meaning to the embodied orientation already identified. During sequencing we select video frames right before and after the apex frame, labeling them onset and completion frames capturing the full episode of embodied interaction. If we have identified, in the detailing stage, a situation when the middle manager impulsively closes the laptop lid, it is now of interest to analyze for example, the gazes that occur right before (onset frame) or right after (completion frame) the apex frame, as these might provide the analyst with contextual information about who is losing and maintaining face in the meeting.

Third, during the technique called “patterning” (step 3 in Figure 2) the video analyst is concerned with understanding the specific line of interaction identified in sequencing. If the middle manager is engaged in a particular line of interaction, we engage in patterning to identify similar lines of interaction across the video data set. A line of interaction is significant for the organizational phenomena as the chosen line of
interaction may well lead others to build their responses on it; they might become stuck with a particular type of interaction (Goffmann, 1967: 12). Thus by identifying the reoccurring movements we tap into the chains of interaction rituals (Collins, 2014) consisting of embodied movements that give insights into the cognitive and emotional processes. It is thus the repetition and variation of embodied interaction across time and space that allow us to bridge the detailed embodied practices to macro phenomena such as strategic change.

In practice, during patterning the analyst arranges similar video frame sequences into visual blocks (Tufte, 1990:33). This is performed in the video editing software, once sequences of onset, apex and completion frames are identified. Arranging thumbnail size images in blocks allows the researcher to escape interpretation challenges of visual flatlands (Tufte, 1990) and spot the way participants use, for example, contextually meaningful hand gestures (LeBaron and Streeck, 2000). Proper visual representation of interaction chains is an integral step of the analysis process as the analyst is able to show the reader the visual interpretation (through graphical annotations) of the reoccurring embodied interactions.

![Diagram](image.png)

**Figure 2** Phases in the video analysis of patterns of interaction

The video methods elaborated on in this section are further expanded in essay #3 of this thesis. Through the analysis steps that I have outlined I formulate my third research question:

**Research question 3:** What are the advantages of applying video-based methods to the study of strategy?

### 4.4 A reflexive note on climbing the theoretical ladder

Throughout my study I constantly redefined my research question. I refined my research question as I categorized my data according to Strauss & Corbin’s (1998) open, axial and selective phases. The grounded theory profiled Strauss & Corbin coding gave me a lot of interpretive leeway as I looked for patterns in the data. I did not treat the concepts as transferrable constructs that could be tested (Gioia et al., 2013). My theorization, based on rich empirical observation, is thus merely one interpretation of what the strategy process might look like.

I use the video methodological toolkit of detailing, sequencing and patterning to provide an incremental insight of what strategy might look like in practice. All three stages of detailing, sequencing and patterning are strongly informed by pre-existing conceptualizations of strategy. Theorizing occurs through the dialogue (Tsoukas, 2009) between what conceptualizations say that strategy should look like and the novel insights that patterned video data brings to conceptualizations of “emergent strategy”. The details and the abstract patterns in the video data thus provide what Tsoukas (2009:287) calls “merely heuristics” for understanding strategy or creativity (in this
case, as an embodied practice). It is challenging to strike a balance between providing sufficient empirical details about the emotional gestures, lengthy debates, painful silences etc., and the implications of/on existing theories on strategy process when elaborating on abstract patterns in the data. Seeing the middle managers involvement in the creative process as an embodied endeavor is an analogy, and I strive to adhere to consistent use of this analogy (Ketokivi et al., 2017). Most specifically I have aimed to avoid the “ad novitatem” fallacy (by drawing multiple connections to strategy process research) and the pitfall of “hasty generalization” (by carefully laying out the empirical observations made) (Ketokivi et al., 2016:17).
5 SUMMARY OF ARTICLES

This thesis consists of four interconnected essays dealing with the topic of strategists’ embodied interaction. The following figure illustrates how the essays fit into the theoretical domains and research questions introduced in this kappa.

---

5.1 Essay #1 How do strategic ideas take off: Affective dynamics in strategic sensemaking

This essay suggests a sensemaking perspective to better understand how strategic ideas may take off in organizations undergoing strategic change. We look at how a novel idea becomes, either partially or fully, shared in the group, and how this processes involves positive affect that spans longer periods of time. We thus zoom in on early affective dynamics that characterize strategic sensemaking. Recognizing that there are a variety
of theories on emotion we draw specifically on Russell’s circumplex model of emotions to facilitate the analysis of affective dynamics. Thus the dimensions of valence and arousal are specifically central in determining whether employees show positive/negative or active/passive affect towards a specific strategic idea.

The empirical context is a national broadcasting company in a northern European country. We follow a strategic change process intensively over 9 months. Our primary method is video shadowing as we followed five producers in their daily work. Through the intense video shadowing we observed meetings, engaged in interviews and collected documents.

Our analysis consists of four stages. First, we identify strategic issues, ideas and episodes. Second, we analyze the group affect in each key episode. Third, we establish links to concrete decisions and actions. Fourth, we look at the details of how emotional sensegiving impacts the group affect changes and the overall sensemaking dynamics.

In our findings we highlight three types of sensemaking dynamics: progressive, regressive and ambivalent sensemaking. Progressive sensemaking is characterized by a movement toward a positive active group affect, and this type is associated with the subsequent takeoff of strategic ideas in terms of concrete decisions and actions. Regressive sensemaking follows the opposite pattern in the sense that the sensemaking leads to a negative active group affect, often effectively killing strategic ideas. Ambivalent sensemaking means a fluctuation in terms of how group affect evolves from one sensemaking episode to the other.

Furthermore, based on our video shadowing data we are able to show that situations of positive active affect often lead to subsequent decision and actions related to the strategic idea. Our findings have three broad implications for future research. First, the generative role of micro-level affective dynamics for strategic sensemaking is highlighted. Second, our findings on the affective dynamics strengthens research on emotional sensemaking. Third, our in-depth video analysis paves the way for future research adopting such innovative methodological tools.

5.2 Essay #2 Managing evaluation and energy in creative idea generation: Bringing in the body

In this essay we set out to explore the management of evaluation and energy in creative idea generation. The management of evaluation is a complex task where leaders and their teams are forced to commit to ideas, but the criteria for idea choice remain ambiguous. There are instances where the practice of evaluation means that the team’s energy is drained, yet on other occasions middle managers (together with their subordinates) are able to apply evaluation criteria without zapping the team of creative energy. We combine research from idea generation and creative processes (Harvey & Kou, 2013; Harrison & Rouse, 2015) with the concept of energy (Quinn & Dutton, 2005), and argue that the successful idea generation necessitates both verbal and embodied interaction.

Our study is based on the videoshadowing of four middle managers at the broadcaster. We specifically analyzed the interaction in key moments of idea generation. Most idea generation occurred in designated brainstorming sessions. We performed a multimodal analysis of interaction during key moments in brainstorming sessions and analyzed both verbal utterances and embodied interaction. With regards to embodied interaction we specifically looked at patterns of how middle managers and their teams moved their bodies (LeBaron, Glenn & Thompson, 2009) and adjusted their voice (Goodwin &
Goodwin, 2000) as they spoke about evaluations that increased or drained the energy in the team.

In our findings we present three phases through which middle managers (and their teams) further the idea generation process. First, we identified a scene-setting phase where evaluation is foreshadowed and energy is raised. This phase consisted predominately of verbal communication, but middle managers also adopted a high level of posture shifts, increased gesturing, gazing and they increased the volume and pace of their speaking. Second, we categorized an idea elaboration phase where middle managers skillfully catalyzed bottom-up evaluations and directed the energy of the group in silence. The managers thus signaled autonomy to the group by aligning the bodies in the rooms towards a materialization of the strategy. Third, in the final phase the middle managers performed committing practices that consisted of strength based evaluations and the anchoring of energy. In this phase middle managers made use of multimodal communication as they used anchoring gestures to direct the team’s energy and attention towards a specific idea.

Our study has implications for the management of evaluation. The providing of feedback is a complex process that easily leads to complacency. Our study reveals a sequence of practices through which evaluation criteria are applied so that nascent commitment is formed. The findings also resonate with the middle manager’s role of “facilitating adaptability” of the organizational strategy. The findings show how evaluation criteria, which often stem from an organizational strategy, can successfully be implemented in teams.

5.3 Essay #3: Video Methods in Strategy Research: Focusing on embodied cognition

The objective of this article is to explore the advantage of video-based methods for studying how middle managers practice strategic change. The benefit of taking a video-based approach is that it allows us to explore the significance of the human body in the practice of organizational strategy. We are thus interested in how middle managers’ embodied cognition supports strategy implementation by influencing nascent behavioral and cognitive changes among their subordinates. This methods article is set against evidence that embodiment may become a major program of research into the socio-materiality of strategy.

The development of our method is informed by video data collected at the broadcaster. Through the empirical illustrations we highlight how a systematic analysis of video data gives us insights on how middle managers implement strategic change. We draw on a range of disciplines from anthropology, psychology, sociology and conversation analysis as we develop our suggestions of a methods tool-kit. The methods argument is specifically set in the field of embodied cognition (e.g., Shapiro, 2010, 2014), which sees the human body not only as a constraint, but also as a site for cognition. Our contribution builds on research on multimodality (e.g., Jones and LeBaron, 2002; Stivers and Sidnell, 2005) and focuses on interaction involving talk, gesture, symbols and other modes of communication.

The result of our methods article is the development a three-stage toolkit for the analysis of video data. The three-stage process allows for theoretical generalization from video data, moving from a still photograph to blocks of multiple frame grabs, whilst preserving the qualitative richness of video data. The toolkit consists of “detailing”, “sequencing” and “patterning” practices. Each stage answers a specific
question. First, detailing addresses the question: How do the components and affordances of the human body enable and constitute cognitive work? Second, sequencing is particularly concerned with: How do people move their bodies to mark the beginnings and endings of significant activity, making them recognizable as discrete episodes during face to face interaction? Third, patterning is primarily about: how does the human body act as the locus of shared understanding in multiple episodes separated by time and space? The methods that we suggest are designed to support the interpretation of moving images (video) and are only to an extent applicable to still images (photography).

Our methodological contribution can be understood in light of a broader program to develop a “visual agenda” in organization and management science (Bell and Davison, 2013; Meyer et al., 2013; Ray and Smith, 2012; Smets et al., 2014). In light of the suggested toolkit we suggest avenues for further research. First, we suggest that video research might look at the role of embodied cognition in middle managers’ influence toward their superiors who decide on organizational strategy. Second, we discuss the topic of retention of strategic ideas as an area meriting an embodied cognition approach. Third, we recommend the study of the cognitive work of the top management team as a natural next step. Fourth, we suggest the emotional foundation of strategy and strategizing as a natural domain for further research.

5.4 Essay #4 Choreographies we strategize by. Using video methodology in the study of embodiment

The objective of this book chapter was to explore the role of video methods in understanding middle management practice. I combine the analysis of embodied interaction with middle management research, looking particularly at managers’ involvement in integrative and divergent strategy processes (Floyd and Wooldridge, 1992). I suggest that through video data we are able to recognize patterns of embodied movement that are used by middle managers as they interact with their teams and with the top management.

An outline of video analysis is provided in order to help readers adopt such a new method in the context of middle management research. Researchers often struggle with large amounts of video data, thus the use of the three stage tool-kit detailing, sequencing and patterning is likely to be particularly useful. In the final analysis stage patterning, the reoccurring movements of middle managers are categorized as choreographies that are meaningful to other members of the organization.

Embodied interaction provides a novel perspective on middle management work. The human body represents and important modality through which members of an organization interact, and embodiment as a research stream offers potentially valuable insights into strategy work (Vaara & Whittington, 2012; Balogun et al., 2014). Embodied movement has been addressed in a variety of disciplines ranging from anthropology, psychology, sociology and dance studies. In this chapter I draw primarily on the embodied cognition literature and dance research as I suggest novel methods for studying middle managers.

I put forth propositions on how movement can be categorized as middle managers make sense of strategy. Predominant movement categories include: movement through objects, moving through gesturing, moving during silence and movement patterns in space. Dance research, such as work by Rudolf Laban (Maletic, 1987), is useful as it outlines how body movement can either pull the group together or push the group
apart, reducing cooperation. Through movement analysis we can also understand how objects, such as artifacts, can be adopted or infected with strategic meaning, how gestures are impulsive or repetitive (dependent on the performer's intentions), and how moving bodies are either idle or suggestive of a particular orientation during silence. I also propose that middle managers use physical spatial arrangements to either gather interaction or break up the team work of participants.

Finally, I review literature in organization and management theory that has provided insights on research on material objects, gestures, silence and physical space. I use the propositions I develop on middle manager movement, to highlight implications for strategy research. I propose that specific movement patterns can be connected to increased levels of group commitment and motivation. Two empirical vignettes provide examples of how video data can be used to analyze movement in relation to artifacts.
6 DISCUSSION: EMBODIED INTERACTION AND PATHS FOR FUTURE RESEARCH IN STRATEGY

This thesis highlights the benefits of an embodied lens on the study of middle managers’ strategy work and proposes video methods as a crucial tool. I focus on the benefits of an embodied perspective on the downward influence of middle managers and associated emotional reactions. However, there are adjacent fields of research that would benefit from an embodied interaction lens.

First, from the perspective of strategy work, the charting of upward middle managerial practices provides a fruitful path for video analysis. In particular our understanding of practices of information synthesizing and championing during strategy work (Floyd & Wooldridge, 1992) are likely to be augmented through patterned video analysis. Although verbal forms of communicating strategy is the primary mode of interaction, embodied ways of championing strategies to the top management team may be inspiring to explore. For example, it is likely that middle managers communicate through the repetition of familiar “issue selling movements” such as pointing towards the sales chart during a talk with the top management team. Researching upward middle manager embodied interaction would provide insights into the practices through which the pattern in strategy formation is altered.

Another theme profiting from video analysis is research into the processes of emotion sharing. Although it has been established that groups may experience emotional contagion (Barsade, 2002), where an emotion or affect spreads from one participant to the group, we do not know what the specific embodied practices are that cause the spreading of emotion. Here the adoption of novel data collection technologies, such as 360 degree “virtual reality” video cameras are likely to be especially useful. The recording of meeting interaction with 360 degree cameras will enable researchers to simultaneously keep track of how the participants move as they discuss the implementation of novel strategy. The application of such technology also advances the distinction between simple contagion processes, and processes when individuals experience a variety of emotion sharing processes such as intentional affective induction, influence from group emotional history or the importance of organizational emotion norms (Kelly & Barsade, 2001).

Technological advances in video methods are also likely to augment data analysis. Categorizing video data on the basis affect takes a lot of time. Can we somehow automate parts of the analysis? It is becoming possible to apply analysis software to video data on interaction in meetings that automates the categorization of affect based on facial expressions, body posture and use of voice (Waller & Kaplan, 2016). There has been methodological work mapping body postures onto various levels of affect (Russell & Snodgrass, 1987; Dael, Mortillaro & Scherer, 2012); and softwares that are based on Russell’s (1980) circumplex model of affect (such as Facereader by Noldus) seem promising. While researchers need to be aware of potential epistemological conflicts of combining automated hypothesis based software coding with a subsequent interpretive lens of affect sharing processes, such automation is likely to be helpful for both quantitative and qualitative analysis. Qualitative researchers could, for example, sample a large amount of interaction data based on instances of high arousal/high valence and high arousal/low valence, and jump straight into key moments in meetings where there is likely to be a heated debate.

Another fascinating research setting is that of augment reality (AR) contexts where individuals interact in a digitally augment world, where a virtual data layer is applied
on reality (Pokemon Go is the classical AR example). Engineers at Airbus are already repairing airplane engines using AR headsets, and the virtual layer assists the engineer on which part of the engine needs repair. If interaction in AR environments is becoming commonplace we will need to account for how computers pick up meaningful body movement in these digitalized contexts. What are specific hand movements needed to successfully repair the airplane engine? How are such hand movements visualized in an AR environment? If people interact through AR as they repair an airplane engine, how are experienced emotions such as anger and frustration picked up by the software? Can we integrate the physical display of emotions into AR settings? As people interact with self driving cars it becomes useful if self driving cars are programmed to read drivers’ states of affect based on body language and provide information that is targeted to the anxious vs. sleepy driver. Embodied interaction in digitalized environments is likely to be an empirical setting where an understanding of patterned analysis of movement will be beneficial.

As video cameras become smaller and less intrusive organization theorists gain access to interaction settings that have previously been out of reach (Vesa & Vaara, 2012). Interaction data has already been collected in traditionally sensitive contexts such as performance appraisal interviews (Sorsa, Pälli & Mikkola, 2014) and teamwork in surgical theatres (Hindmarsh & Pilnick, 2007). If researchers cannot be physically present in the research setting, a video link becomes a crucial tool for access. The development of small and cheap video cameras also facilitate data collection through participant generated video diaries (Zundel et al., 2016). The diary method has already been used as a successful tool for gathering large amounts of data and in order to gain an inside perspective on organizational phenomena such as creativity and affect (Amabile et al., 2005). Equipping people in organizations with video cameras is a sampling strategy where the researcher gains a participant’s perspective on the events that are meaningful in an organization (Jarrett & Liu, 2016).

An embodied interaction perspective can also reveal underlying power structures in organizations. Are there specific unspoken emotional norms governing the organization? Are the emotional norms translated into body movement patterns that are tied to a specific gender? Critical gender research is likely to benefit from embodied analysis given that there often is a gap between what managers describe as “equal opportunities” in organizations, and a predominately masculine interaction culture that is not verbally acknowledged. Interestingly, much of North American elocution training (including body expression) has its roots in the systematic reading of “perfect” postures of ancient Roman statues (Ruyter, 1999), identifying the “correct” posture for e.g. “humility”, “eagerness”, “reflection” etc. Such historical roots of public speaking training in North America begs the question: are there postures in today’s organizations, reflecting for example “confidence”, that are can be clearly associated with the masculine gender? What is the genealogy of powerful body language in strategy meetings? Exploring such questions is likely to shed light on an important part of interaction in strategy meetings that embeds social structures that have become taken-for-granted.

Researching organizations through embodied interaction and a video methods perspective opens up a range of exciting opportunities. The findings of this thesis, concerning the practices in strategy implementation and idea generation, show how the analysis of embodied interaction can provide insights on organizational phenomena such as strategy formation and creative work. In conclusion I hope that the future research directions charted in this final section will provide readers with enthusiasm for pursuing research in the field of embodied interaction and organization theory.
REFERENCES


APPENDIX 1 VIDEO METHODS IN STRATEGY RESEARCH: FOCUSING ON EMBODIED COGNITION

This is a so-called personal version of author’s manuscript as accepted for publishing after the review process but prior to final layout and copyediting; Gylfe P, Franck H, LeBaron C & Mantere S; 2016. ‘Video methods in strategy research: focusing on embodied cognition’ Strategic Management Journal: volume 37, issue 1: pages 133 – 148. DOI: 10.1002/smj.245


Readers are asked to use the official publication in references.
Video methods in strategy research: focusing on embodied cognition

Philip Gylfe, 1 Henrika Franck, 1, 2 Curtis LeBaron, 3 & Saku Mantere, 4*

1 Department of Management and Organisation, Hanken School of Economics, Helsinki, Finland
2 Department of Management Studies, Aalto University School of Business, Helsinki, Finland
3 Department of Organizational Leadership & Strategy, Brigham Young University, Provo, Utah, U.S.A.
3 Desautels Faculty of Management, McGill University, Montréal, Quebec, Canada

Research summary:
Video-based methods can help researchers explore the significance of the human body in the practice of organizational strategy. We present a toolkit for the analysis of video data. The toolkit consists of three techniques: the detailing of significant forms in visual data, the sequencing of movement around such forms, and the patterning of movements across episodes. We employ these techniques on video recordings of middle managers engaged in a large-scale strategic change effort. By revealing and analyzing the practices of “top-down” and “bottom-up bridging,” we show how the embodied cognition of middle managers supports strategy implementation by influencing nascent behavioral and cognitive changes among their subordinates. We conclude our account by suggesting a research agenda for video-based work in strategy research.

Managerial summary:
We explore video-based methods as a means to understand how middle managers incorporate strategic change in their practice. During strategic change efforts, a lot of what is taken to be the buildup of “shared understanding” is more appropriately viewed as emotional contagion. The success of middle management change agency is thus measured, not only by their successful elaboration of strategy content to others, but also whether or not organizational members invest themselves emotionally to the change endeavor. Such contagion is founded on the interaction of human bodies as well as their verbal discourse.

Keywords: qualitative research; video methods; visual analysis; embodiment; socio-materiality; middle management

*Correspondence to: Saku Mantere, Desautels Faculty of Management, McGill University, 1001 Sherbrooke Street West, Montreal, QC, H3A 1G5, Canada.
E-mail: saku.mantere@mcgill.ca
INTRODUCTION

In one of his now classic explorations of Intel Corporation, Burgelman (1991: 243, added emphasis) noted: “organizational strategy [...] is embodied in the managers who rose to (or stayed at) the top while pursuing a particular set of strategic initiatives. Burgelman’s passing remark reveals a little understood aspect of strategy: What is the nature of such embodiment? How are strategies embodied, and to what consequences? What is the role of the strategist’s body in the practice of strategy?

There is a growing discontent toward the dominant Cartesian view that organizational strategies are outcomes of calculated analysis by brilliant people (Chia and Holt, 2006; Clegg, Carter, and Kornberger, 2004; Mantere and Vaara, 2008; Mintzberg, 1994). Evidence is mounting that intended strategy is created through social interaction (e.g., Kaplan, 2008), founded on embodied metaphors (Heracleous and Jacobs, 2008, 2011), and interpreted through embodied storytelling (Küpers, Mantere, and Statler, 2013). Significant advances have been made recently in order to broaden understanding of socio-material aspects of strategy, most notably, in understanding the use of strategy tools (Jarzabkowski and Kaplan, 2015), the study of which has bloomed into a vibrant research program (also see, Kaplan, 2011; Spee and Jarzabkowski, 2009; Wright, Paroutis, and Blettner, 2013).

Evidence that embodiment may become a major program of research into socio-materiality of strategy has begun to trickle in. There is, for instance, mounting evidence that the expression of embodied emotions influences social cohesion in a strategy process (Liu and Maitlis, 2014). It has also been suggested that the thinking body plays a role in the cognitive construction of many firms’ strategies, as with the vision of “the green platform where animals go,” constructed out of LEGO bricks in Heracleous and Jacobs’s studies (2008, 2011). The body may also play a role in the discursive framing of strategic decisions, as was the case in the difficult downsizing decision, conceived through the embodied metaphor of “killing a monster that is eating the heart of the company,” reported by Küpers et al. (2013).

The intelligent and interactive body of the strategist thus provides the context for this methodological article, focused on the introduction of video methods to the palette of methods available to strategy scholars. As human bodies move and interact in time and space, they provide an ideal domain for exploring the potential of video-based methods in strategy research. More broadly, video-based methods are powerful and accessible means of extending knowledge about the practice of strategy in organizations (Balogun et al., 2014; Vaara and Whittington, 2012; Vesa and Vaara, 2014). Yet, strategy scholars do not yet use video-based methods as standard tools of their trade. With a few exceptions (Liu and Maitlis, 2014; Sorsa, Pälli, and Mikkola, 2014), published video-based work is almost nonexistent in our field. Video cameras are cheap and readily available even in cell phones. Why would field researchers limit themselves to asking people about the role of strategy in their work if they can also go and record them doing their work? Why would ethnographers not augment written field notes with audio-visual recordings of events that can be revisited over and over again? While the production, analysis and reporting of video-based research does involve specific ethical issues and practical challenges, we suspect that the scarcity of video-based work is, at least in part, due to a lack of methodological tools that would help scholars approach and utilize the richness of video data. In what follows, we will focus on the analysis of video data, which we regard as the challenge most benefiting from a scholarly discussion. However, readers are invited to consult Appendix S1 for an elaboration of challenges involved in the production and publication of video data.
In this article, we explore the use of video-based methods in strategy research. While our intended primary contribution is methodological, we focus on a range of phenomena pertaining to the practice of strategy as a form of embodied cognition, responding to recent calls for new research in the domain (e.g., Balogun et al., 2014; Vaara and Whittington, 2012). Our methodological contribution can be understood in light of a broader program to develop a “visual agenda” in organization and management science (Bell and Davison, 2013; Meyer et al., 2013; Ray and Smith, 2012; Smets et al., 2014). Visual data sources encompass both static media such as pictures, maps, web pages, as well as dynamic media such as films and video recordings. Visual research can be seen as a logical next step following the “linguistic turn” in management studies, which regards language as constituting meaning and reality, rather than as an independent carrier of objective ideas (see, e.g., Rorty, 1979). Visual research has been conducted on a diverse set of phenomena including leadership (Davison, 2010), gender (Kuasirikun, 2011), institutional work (Zundel, Holt, and Cornelissen, 2013), and embodied emotions (Liu and Maitlis, 2014). Despite this, as Bell and Davison (2013) note, visuality and vision remain underexplored in management studies overall.

We use video data collected from an empirical study examining the strategy work of middle managers at a Nordic Broadcasting Company. Our illustrative case focuses empirically on Burgelman’s question by exploring how strategic change is embodied in the practice of middle managers during episodes of interaction with subordinates. By using video data, we find that strategy is realized through a pattern of reoccurring embodied configurations consisting of specific postures, gestures, gazes, and so on. We extract a practice that we call “embodied bridging” where a middle manager performs a link between the expression of organizational strategy and the subordinate. The practice of bridging facilitates strategic change initiation (Gioia and Chittipeddi, 1991) by founding, on the one hand, a sense of inclusion among subordinates and on the other hand, reinforcing compliance behaviors among subordinates. Through our empirical illustration we suggest that middle managers facilitate such initiation in patterned ways across the organization. Our methodological toolkit is tuned to pick up on such unspoken practices of strategy work.

EMBODIED COGNITION AND VIDEO RESEARCH

The growing appreciation of embodiment in strategy practice coincides with the increasing momentum of embodied cognition as a field of research (e.g., Shapiro, 2010, 2014). The body matters, not only as a constraint (e.g., our perceptions are limited due to the structure of our sensory organs) and influence on cognition (e.g., a headache influences thinking), but also as a site for cognition. The body does not only get in the way of thinking at times; our bodies enable thinking, as individuals and as collectives. Embodied cognition extends the analysis of human cognition beyond the brain to include a world that is both social and material (Streeck, Goodwin, and LeBaron, 2011). Cognition is “embodied insofar as it emerges not from an intricately unfolding cognitive program, but from a dynamic dance in which body, perception, and world guide each other’s steps” (Shapiro, 2010: 61). The recent surge in research on multimodality in communication studies (e.g., Jones and LeBaron, 2002; Stivers and Sidnell, 2005) is not just about the coordination of talk, gesture, symbols, and other modes of communication. It extends the reach of embodiment further from individual bodies by acknowledging the intersubjectivity of cognition. Although intersubjectivity is partly a discursive accomplishment, discourse “shares billing with space, with artifacts, with work, and with the visible palpable body” (Moerman, 1990: 182). People make sense of the world by enacting it, by interacting with the material world that includes other
thinking bodies and technologies (Varela, Thompson, and Rosch, 1991; also see, Di Paolo and Thompson, 2014).

The techniques for analyzing video data that we present draw from research in the disciplines of anthropology, sociology, and cognitive science, which have contributed to our understanding of embodied cognition. Decades ago, anthropologists began using video technology to study the details of human interaction or “microbehaviors” (i.e., small and often taken-for-granted behaviors) that function as the building blocks of micro-cultures such as classrooms (e.g., Erickson and Mohatt, 1982). At the same time, psychologists used video to analyze “contextual frames” or coherent units of interaction made visible, for example, by participants’ sustained postural configurations (e.g., Kendon, 1990; Scheflen, 1973). Eventually, analyses of visible behavior were deliberately combined with rigorous methods for analyzing talk (e.g., Heath, 1986) — especially conversation analysis (Sacks, 1984) — in careful studies of professional and organizational activity (e.g., Goodwin, 1994). Such video-based studies have moved in a variety of directions, including topics traditionally considered to belong to the domain of cognitive psychology: for example, awareness (Heath et al., 2002), perception (Goodwin, 2000, 2005; Koschmann et al., 2011), emotion (Goodwin and Goodwin, 2000), guilt (LeBaron and Streeck, 1997), and aphasia (Goodwin, 2003, 2010).

Video-based studies provide an enriched understanding of the organization studied, often augmenting traditional qualitative methods. In comparison to field notes and interview transcripts, video data allows the researcher to go back and revisit “the field” through repeated viewings of the video. Similarly, with regard to audio recordings and archival data, video data augments the analysis by allowing for an understanding of the socio-material and embodied forms of behavior in organizations. By exposing embodied cognition in human interaction, video-based methods enrich scholarship around phenomena such as decision making, influence and communication, all of which are crucial for understanding how strategies are created and realized. We are thus able to tap into the rich microculture of strategy that is filled with often inaudible imperatives, corrections, hints of what is of strategic relevance to the participants. Our methodological toolkit allows us to profit on the unique features provided by video data, and to engage in a systematic analysis of how organizational strategies are embodied in practice (Vaara and Whittington, 2012).
Figure 1 Three techniques for analyzing and presenting video data
TOOLKIT FOR ANALYZING AND PRESENTING VIDEO DATA: THREE TECHNIQUES

Our methodological toolkit consists of three techniques, which we will call “detailing,” “sequencing,” and “patterning.” Scholarship in embodied cognition has engaged the following three questions, and we use these questions as a framework for our toolkit. The first question asks: How do the components and affordances of the human body enable and constitute cognitive work (e.g., Goodwin, 2000; Scheflen, 1976)? This question provides the foundation for the technique of detailing, which captures features of embodied cognition within a single visual frame. We use the technique of detailing to amplify strategically significant forms of embodiment that may be difficult or impossible to capture through field notes and audio data. The second question is: How do people move their bodies to mark the beginnings and endings of significant activity, making them recognizable as discrete episodes during face to face interaction (e.g., Goffman, 1974; Kendon, 1990)? Our second technique, sequencing, captures the movement of bodies and the analysis of embodied performance (including markings of beginnings and endings) in interaction. The third question is: How does the human body act as the locus of shared understanding in multiple episodes separated by time and space (e.g., Haviland, 2000; LeBaron and Streeck, 2000)? Our third and final technique, patterning, involves the examination of embodied behavior and interaction across episodes and events to identify significant patterns of repeated behavior that serve as instantiations of embodied cognition. The three techniques are interconnected. Detailing is concerned with fundamentals of embodied orientation and attention-directing behavior, while sequencing follows unfolding movement as participants point, touch, and manipulate the material environment in ways that are recognizable and meaningful. Patterning allows us to generalize our findings through comparison of several episodes of interaction (Figure 1).

The techniques reflect an ethnomethodological attitude toward research (Garfinkel, 1967), which encourages analysts to locate the interactional mechanisms and social practices whereby people make everyday sense of their experience and constitute social realities (Heritage, 1984). It is relatively easy to collect large amounts of video data (video ethnographies, for instance, easily end up with hundreds of hours video data, e.g., Smets et al., 2015). The difficult task is how to approach the processing, analysis and publication of video data (Ray and Smith, 2012) in a methodologically rigorous way. Our three techniques are designed primarily to support the interpretation of moving images (video) and are only to an extent applicable to still images (photography). The elaboration of the three techniques necessitates the use of a number of technical terms such as “orientation-and-attention accents,” “apex frames,” “onset frame,” and so on. To facilitate reader access, we have prepared a glossary of technical terms in the Appendix S2.

Detailing: regarding forms of embodied cognition within a single visual frame

Fundamentals of embodied cognition can be seen and recognized at a glance. The cognitive work of a person extends beyond the individual brain to include surrounding people and things, organized in ways that both enable and signal what is going on. If we were to suddenly open the door and look into a strategy meeting, we would immediately see the location and orientation of people, relative to each other and their material environment, which would altogether divulge — in an instant — information about the participants and their knowledge work. For example, researchers have observed a close connection between orientation (embodied) and attention (cognition). When people turn their attention from one thing to another, they may literally turn parts of their body such as eyes, face, and torso from one thing to another (Scheflen, 1976). Such behavior is both in the service of the work at hand and functions as a signal, visible and recognizable to others, including analysts who may be analyzing frames of video. Especially during knowledge work such as a management meeting, people may turn and orient toward each
other, making each other an object of sustained attention (Goodwin, 2000; Kendon, 1990), creating what Goffman (1964: 64) called an “ecological huddle” that publicly demonstrates the nature of their interdependent work.

Features of embodied cognition, such as physical forms of attention, may be captured within a single visible frame of video for the purpose of analyzing its embodied details as features of embodied cognition. The technique of detailing involves careful preparation and editing of video data. A frame is selected because it contains the details of embodied cognition that participants signal to each other in the first place. Such signals are also available to analysts in their role as onlookers.

Through detailing, analysts amplify the embodied forms that the participants themselves have already displayed. That is, as analysts direct the attention of readers, they subsume and go beyond the attention-directing behaviors of the participants themselves. First, directing the attention of readers involves selecting an “apex frame” from the video data based on the cognitive work performed by participants. The apex frame reveals the researcher’s interpretation and it allows for the preservation of signals (Mondada, 2006) of how people are oriented toward each other and direct attention through gazing, facial orientation, hand position, and so on (see Figures 2 – 4 below for illustration). The publicly demonstrated signals are amplified as the researcher edits the apex video frame through appropriate zooming (Boeriis and Holsanova, 2012; Heath, Hindmarsh, and Luff, 2010: 123). Subsequently, the researcher adds transparency to the visual analysis by foregrounding participants’ signals through “orientation-and-attention accents” such as arrows, text boxes, clarifying sketches, and so on. (Heath et al., 2010: 125; Tufte, 1990: 63). “Orientation-and-attention accents” denote the direction of attention in the apex frame and enhance the readers understanding of how participants are turned toward each other. Finally, using video editing software, digital searchable tags that allow rapid future access are added to apex frames, and the researcher moves on to the techniques of sequencing and patterning of the features of embodied cognition found through detailing.

**Sequencing: recognizing performance of embodied cognition across multiple visual frames**

Sequencing introduces the element of movement, shifting the focus of analysis from the details found in a single frame to an analysis of a succession of frames. If we were to attend a strategy meeting, sitting and watching the unfolding conversation, our understanding of any particular instant would be informed by what happened immediately before and after. Consider video itself — a technology that creates the illusion of motion by presenting single frames in quick succession, often with some sort of opening and closing view. Strategists may initiate an episode by pointing at a particular PowerPoint slide or by glancing at balanced score card results; and they may conclude a discussion by closing the
The cognitive work of people extends beyond still forms and orientations to include the movement of bodies relative to each other and their material environment. Most obviously, minds and materials change while people reach out to literally mark, manage, or mangle things within reach. More subtly, people do cognitive work as they reach out to point, touch, or lightly trace the shape of something, quickly highlighting its significance, momentarily foregrounding its relevance, temporarily making people more mindful (Goodwin, 1994).

Research on embodied interaction frequently looks at the beginnings and endings, the openings and closings, the onset and completion of human action and activity because recognition and understanding depend on such “boundary moments” (e.g., LeBaron, Glenn, and Thompson, 2009). Strips of behavior become recognizable and meaningful when set apart through bracketing or framing devices (Goffman, 1974), performed by the participants and spotted by analysts. For example, before pointing, touching, or tracing, people may lift their hands into a “gesture space” (Kendon, 1972) where the hands are made visible and ready for action; and afterward, hands may drop to the side, showing a completion of performance. Individual behaviors are made meaningful largely through their relationship to other behaviors occurring temporally and spatially proximate. Sequential organization enables participants and analysts to recognize unfolding action.

When embodied actions associated with cognitive work unfold through movement, they are best seen and recognized across multiple visual frames. Multiple visual frames, such as a sequence of three, are not arbitrarily selected: Analysts deliberately feature the apex of action as recognizable and meaningful through its embodied relationship to what comes

---

**Figure 2** Detailing forms of embodied behavior by adding orientation-and-attention accents

**Figure 3** Sequencing: Adam prepares and concludes the delivery of his strategy message. We add motion accents to the onset and completion frames to amplify movement

Lid of their laptop or by standing and walking out of the room. Strategists structure episodes with beginnings, developments, and ends. During sequential episodes, strategists weave visual narratives using gaze, posture, hand gesture, stage movement, and so forth.

A classic example of embodied movement is found in the groundbreaking study of Bate son and Mead (1942) that included 749 photographs — single frames and sequences of frames — of Balinese people standing, moving, eating, sleeping, and dancing in ways that constituted their community and culture. Philosophers of a phenomenological persuasion have also long recognized that people appreciate the world through the movement and manipulation of their bodies (e.g., Bergson, 1946; Merleau-Ponty, 1962), and that human understanding is “not in our minds but in our skillful ways of comporting ourselves” (Dreyfus, 1991: 75). The cognitive work of people extends beyond still forms and orientations to include the movement of bodies relative to each other and their material environment. Most obviously, minds and materials change while people reach out to literally mark, manage, or mangle things within reach. More subtly, people do cognitive work as they reach out to point, touch, or lightly trace the shape of something, quickly highlighting its significance, momentarily foregrounding its relevance, temporarily making people more mindful (Goodwin, 1994).
before and after. The analytical technique of sequencing resonates with the craft mastered by graphic designers (Tufte, 1990: 114) and cartoon artists of making choices on which movements to capture in conveying embodied movement. We expand on an apex frame that was identified through the technique of detailing: Again using video editing software, we add a visual frame before (onset frame) and after (completion frame) the apex frame (see Figure 3 below for illustration). The additional video frames reveal instances of preparation and retraction during embodied performance, and convey the interpretation made by the researchers.

Figure 4 Patterning: bodies facilitating top-down and bottom-up influence
Researchers select onset and completion video frames based on the participants’ embodied markings in the raw video data. When selecting onset and completion frames it is necessary to revisit video snippets before and after the apex frame multiple times (sometimes in slow motion). Participants perform a visual narrative as they stage their message and analysts need to distinguish between marks of beginnings and endings of embodied performance. Once onset and completion frames are selected, analysts may add “motion accents” to enable visual interpretation. Motion accents are graphic annotations, such as an arrow, that emphasize a participant’s embodied movement (see Figure 3 below for illustration). Sequencing movement in video data provides a different perspective than what photographic data does (Ray and Smith, 2012), as photographs do not fully capture embodied movement. By arranging onset, apex, and completion frames side by side, we avoid presenting participants as arrested figures, and instead, convey continuous natural movement to the reader.

**Patterning: tracking instantiations of embodied cognition across episodes and events**

While detailing and sequencing look inside a particular meeting to see how ideas extend beyond the individual brain to include other people and things, patterning looks across meetings and events to see how ideas may transcend the boundaries of a singular instance or specific moment. If we were to attend a series of meetings about some organization’s strategic initiative, we would be able to see consistencies or recurring forms or features that run across those meetings. The performance of a champion embodying a specific strategic initiative (Burgelman, 1991) encodes that initiative as ways of being that include gestures, postures, and facial expressions. These performances are repeated in interaction by that champion and by others who follow in the wake by imitating some aspects of those performances across multiple locations in the organization. Through patterning we are able to analyze a temporal stream of embodied actions that constitutes strategy work. The technique of patterning allows the analyst to capture sets of visual frames (single and multiple) that constitute the widespread patterns of strategy performance. Pattern recognition is an ongoing concern for social scientists (Haring and Johnson, 1940), but also for research subjects who may perform patterns of behavior as social conventions that transcend time, place, and function. Repositories or residues of past acts of meaning (Bruner, 1990) are recognized as people interact in a material world consisting of artifacts that are charged with historical meaning (Latour, 1987; Star, 1989). Such notions of distributed cognition go hand in hand with theories of embodied cognition because the body is a special object of shared understanding and meaning. Hand gestures, for example, have their origin in the hands’ manipulation of the socio-material world:

*Gesture is not a symptom of mental events .... Rather, it is an embodied and therefore public symbolic practice, kinesthetically known by its makers, visually known by its beholders, and derived from and embedded in an objective world within which mindful hands operate. (LeBaron and Streeck, 2000: 137)*

Patterning involves a broader analysis of the video data collected. After detailing and sequencing, the researcher will have collected apex frames containing embodied orientation and attention behavior as well as onset and completion frames illustrating the participants embodied performance in a specific episode. After careful detailing and sequencing of multiple episodes in the video data, researchers are able to discover reoccurring patterns of embodied behavior. Using video editing software, multiple sequences (consisting of onset, completion and apex frames) are analyzed for repetition. In order to amplify reoccurring embodied messages to the reader, researchers use thumbnails of the video frames and rearrange mutually resembling sequences in blocks (see Figure 4 below for illustration) to allow for an easier visual analysis (e.g., O’Halloran et al., 2012: 369). The block arrangement calls for an active eye to look for differences and
similarities in the frame grabs and avoids the need to recall images scattered over multiple pages in the research article (Tufte, 1990: 33). Block arrangements are thus crucial in order to visualize the history of embodied messages that participants draw on. Researchers continue by “contouring” areas of interest in the frame grabs to enable a micoreading of a particular movement (Tufte, 1990: 37). In practice, this step is done by drawing contrasting lines around a participants’ embodied expression through the use of image editing software (see Figure 4). Through the contouring of multiple video frames, researchers are able to visually convey repetitions in embodied messages to the reader at a single glance. In sum, the technique of patterning allows us to track instantiations of recurring embodied messages used by participants across strategy meetings and events, and introduces an efficient way of communicating embodied repetition evident in video data to the academic reader.

ILLUSTRATIVE CASE: STRATEGY IMPLEMENTATION AT THE BROADCASTING COMPANY

To demonstrate how the three techniques are used, we employ video data derived from an empirical study focused on the strategy work of middle managers at the broadcaster. We explore how strategic change is embodied in the practice of middle managers during episodes of interaction with subordinates. The context of the study is a large-scale strategic change effort that challenges the dominant logic of the company (Prahalad and Bettis, 1986). The funding basis of the broadcaster has recently shifted from license to national tax funding, motivating its top management to maintain legitimacy among taxpayers by trying to shift the Company’s raison d’être from didactic journalism (educating the public) to customer service (satisfying the public). The change in strategic direction at the broadcaster has put middle managers in a position where they need to communicate the customer service logic to team members.

During the study so far, we have shadowed middle managers for 230 hours in their daily work activities during successive two-week intense periods, out of which 105 hours were video recorded. We adopted a meticulous field-note-taking routine (with time codes to match the video data), and produced memos after each day of shadowing (Czarniawska, 2007; Jarzabkowski, Bednarek, and Cabantous, 2014). We followed middle managers as they communicated the new customer-oriented strategy across meetings such as weekly team meetings, program development meetings, employee introductions, top management meetings, and so on.

Detailing: Adam’s body as a bridge between the expression of strategy and a subordinate

Our video shadowing of middle managers at the broadcaster allowed us to observe and record several instances of strategy implementation. In analyzing the daily work of a middle manager called Adam (name changed), we focused our attention on his practices in a particular employee strategy-briefing in which he described the organization’s new “creativity strategy.” We applied the technique of detailing and analyzed the single video frame (see Figure 2) depicting Adam’s pointing behaviors in the employee strategy-briefing. Our aim in detailing was to capture the first hint at how Adam was “speaking” about the strategic change effort with his body. To start, Adam oriented himself and his audience by pointing with his torso and hand toward the computer screen, yet he turned his head toward the employee, which signaled a divided-attention stance. In this dual-focus on screen and employee, Adam directed joint attention toward the strategy document on the PowerPoint slide and the employee who was the recipient of Adam’s strategy communication. He elicited attention from the employee to the strategy document, toward which the employee was looking. We added orientation-and-attention accents to the single video frame to annotate the direction of Adam’s pointing (computer...
screen) and gazing (employee), and to denote how he was using his body to bridge between an expression of strategy on the screen and the employee in the room. Finally, we tagged the video frame as an apex frame in our editing software and proceeded to the technique of sequencing that allowed us to analyze how this specific feature of embodied cognition unfolded in motion.

**Sequencing: Adam prepares and concludes the delivery of his strategy message**

Next we illustrate the technique of sequencing, which allows us to further elaborate embodied cognition as we witnessed Adam creating a visual narrative through a sequence of gestures before and after the embodied bridge that we identified by detailing. Empirically, we were particularly interested in the embodied narrative through which the strategic change effort was communicated to the employee. Through the use of detailing, we identified Adam’s dual-focus on computer screen (strategy) and employee (Figure 2). Through sequencing, we conveyed embodied movement to the reader as we analyzed the beginning and ending of the dual-focus move depicted in the apex frame. To achieve this, we played back the video several times around the apex frame and paid special attention to how Adam staged the issue of strategy implementation through the use of preparatory and concluding gestures (Figure 3).

In the apex frame, Adam proposed that his team member should pay more attention to the organization’s new strategy. Sequencing captured Adam producing a “pincher” gesture earlier with his thumb and index finger signifying his concern over the lack of strategy implementation across his unit. Furthermore, in the completion analysis, we noticed that Adam waved both of his hands upward in an expression of energetic engagement by his staff to execute the direction written in the strategy document. The team member nodded, sustained her forward leaning body posture, and shifted her gaze interchangeably between Adam and the computer screen; demonstrating her focused attention toward the task of implementing the new strategy. Such attention hints at the building of nascent commitment to change initiation. Adam’s embodied performance thus not only rendered his central gesture (the embodied bridge) noticeable, but provided impetus for initiation through a problem formulation (onset frame) and concluded in a call-to-action (completion frame). The sequential strategy performance that was amplified through onset, apex and completion frames allowed us to appreciate the movements through which the middle manager channeled the organizational strategy to the employee.

**Patterning: discovering “top-down” and “bottom-up bridging”**

Patterning is conducted through comparison between several episodes of interaction. It builds on the orientation and attention behaviors identified through detailing as well as the embodied performances extracted through sequencing. As we patterned our video data from the broadcaster, we built visual blocks of sequences of events to gain a better overview of middle-manager strategy work. Following our research interest, we looked for generalities in how the middle managers used their bodies as they spoke about the strategic change initiative. The visual frames (coded as onset, apex, and completion in the video data) were used to build the frame set blocks that helped us see generalities in embodied movements. We found that middle managers performed similar bridging gestures across different meetings (Figure 4). The orientation-and-attention accents highlight that bridging gestures appeared across different divisions of the organization and were used, not only by Adam, but also by several middle managers studied.

Evidence of bridging gestures appeared across multiple episodes where middle managers spoke about the strategic change initiative, and with the help of patterning, we were able to distinguish between two types of embodied bridging. Comparison of frame set blocks
allowed us to separate the sequences into “top-down” and “bottom-up bridging.” In “top-
down bridging” (rows 1 – 4 in Figure 4), middle managers pointed toward the material
expressions of strategy, directed their gaze toward the audience, and generated nods in
the audience; and did so repeatedly as if this was a rehearsed physical exercise.
Conversely, in “bottom-up bridging” (rows 5 – 8 in Figure 4), middle managers integrated
team inputs into the expression of strategy through the use of Post-it® notes, writings on
the white board, or taking screenshots of co-created material. The middle managers’
performance of “bottom-up bridging” provoked energetic engagement with strategy by
team members. This is particularly evident in the still video frames of rows 6 – 8 (Figure
4) depicting team members gesturing enthusiastically, getting up from their chairs,
walking to the white board, leaning forward and straightening their backs.

To convey our finding of the two types of bridging, we contoured the gestures performed
by the middle managers in the apex frames and added orientation-and-attention accents
to the images to emphasize the repeated direction. The technique of patterning —
including the use of visual blocks, contouring, and orientation-and-attention accents —
thus allowed us to visually identify instantiations of reoccurring cognitive work across
episodes of middle manager strategy implementation.

The pattern of sequences in Figure 4 illustrate how middle managers used their bodies to
fulfill their expected role of linking bottom-up and top-down flows in the strategy process
(Floyd and Wooldridge, 1992a). They establish this through a practice that we call “top-
down” and “bottom-up bridging.” Bridging consists of efforts of joining material
expressions of organizational strategy (written plans, PowerPoint slides, flip charts, etc.)
with the bodies of other organizational members (peers, subordinates, etc.) (Figure 5). In
“top-down bridging,” middle managers used their bodies as bridges that allowed
expressions of company strategy to “get across” to their subordinates. In “bottom-up
bridging,” middle managers reversed the direction of influence by allowing workers to
influence expressions of organizational strategy.

The situated performance of bridging demonstrates the multi-directional capacity of the
human body. The body has the ability to orient and point in more than one direction at a
time (Scheflen, 1976), which enables and registers a person’s multiple involvements
during face-to-face interactions and meetings (MacMartin and LeBaron, 2006). In
addition to the hands and fingers, which can most explicitly point in a particular direction,
a person can point or direct the attention of others through the orientation of body, torso,
head, and eyes. Hence, when our middle managers point toward a computer screen and at
the same time look toward an employee, they are simultaneously pointing in both
directions, which performs a connection, or provides for the inference that the screen and
the employee are related.

The metaphor of a “gap” between expressed strategies and work is widely employed in
texts about strategy implementation (e.g., Beer and Eisenstat, 2000; Floyd and
Wooldridge, 1992b; Noble, 1999), and the notion of doing “gap analysis” to “bridge”
between desired performance and current performance is well established in managerial
thinking (Grundy and Brown, 2002). The extent of its application in management suggest
that the gap may act as an ontological metaphor (Lakoff and Johnson, 1980), that is,
managers orient themselves to the challenge of strategy implementation as they would
toward a real, physical gap (failing to cross it would cause one to fall; building a bridge
allows one to cross the gap). This is consistent with studies on material expressions of
strategy such as PowerPoint slides (Kaplan, 2011) and narrative plans (Sorsa et al., 2014;
Vaara, Sorsa, and Pälli, 2010), which have shown that material expressions are, on the one
hand, malleable as they are edited during the strategy process, and directive, on the other
hand, as they do influence action (Jarzabkowski and Kaplan, 2015; Kaplan, 2011; Vaara et
al., 2010).
Our findings about bridging elaborate and extend Burgelman's (1991) remark that strategies are embodied in organizational members. "The Bower-Burgelman model" (Jarzabkowski, 2005) presents strategy process as one of internal evolution where ideas, promoted by individuals, are selected and retained. Burgelman's remark on embodiment suggests that individuals retain a particular strategic idea in patterned ways as they encode and enact it in the embodied cognition of organizational members. In contrast to Intel's more bottom-up strategy, emergence during an extended period of observation, at the broadcaster, the strategic change process was top-down and in its initiation stage (Gioia and Chittipeddi, 1991). Middle managers had just recently been tasked with communicating strategy in their teams. Thus, in the broadcaster case, embodied cognition takes place in the context of strategy implementation rather than strategy formation as was the case at Intel. In the context of implementation, middle managers use their bodies as channels between textual expressions of organizational strategy and the attentive bodies of their subordinates. Bridging gives sense to Floyd and Wooldridge’s (1992a: 154, our emphasis) notion that "as 'linking pins', middle managers take actions that have both upward and downward influences.”

Beyond Floyd and Wooldridge’s evocative metaphor of a “linking pin,” we know very little of how middle managers influence microchanges in organizations, which are necessary for strategic change to be initiated and strategy to be implemented. Successful “bridging” implies two sets of outcomes for strategy implementation that can shed light on this issue. The first set of changes is

Figure 5 The body of a middle manager performing a bridge between strategy and work

behavioral in nature. “Top-down bridging” elicits expressed agreement from subordinates in relation to a strategic plan. When middle managers lock gazes with their subordinates while using their bodies to close a circuit between a strategy text and a subordinate, nods are elicited as affirmatory gestures. This commits implementers to changes indicated in the strategy texts. Such commitment, while nascent and potentially transient, suggests that bridging is a part of the microfoundation of initiating strategy-aligned (Van Riel, Berens, and Dijkstra, 2009) or conformance (Floyd and Lane, 2000) behaviors.

The second set of changes is cognitive. In “bottom-up bridging,” the middle manager physically manipulates a version of a strategy text on the basis of input from subordinates, which establishes a sense of inclusion among participants (Westley, 1990). As the middle manager’s attentive body documents modifications in a strategy text, organizational members play the role of co-authors (Balogun et al., 2014) of that text. Such participation
provides a nascent foundation of reidentification with the future organization depicted in
the strategy text, reinforcing commitment to the implementation of strategic change (Fiol,
2002).

AGENDA FOR FURTHER RESEARCH

The persistence, extent, and influence of such behavioral and cognitive changes remain a
venue for future research. We conclude our account by sketching further domains of
research where the application of our methodological toolkit could assist in the
exploration of unanswered questions about strategy. In our empirical illustration, we have
focused on the embodied cognition of middle managers in their activities of implementing
strategy with their subordinates. A natural next step is to look at the role of embodied
cognition in middle managers’ influence toward their superiors who decide on
organizational strategy. Upward influence by middle managers, such as issue selling
(Dutton et al., 2001) and championing (Floyd and Wooldridge, 1992a; Mantere, 2005), are
likely to be influenced by an embodied dimension that remains unexplored.

If such upward influence is related to variation of new strategic ideas, a related issue is the
role of middle manager embodied cognition in the retention of such ideas, which was the
context of Burgelman’s original remark. Can a particular gesture within an interactional
episode represent a particular strategy? What explains success and failure in encoding
strategies in embodied interaction? These questions require the use of video methods, and
our toolkit allows for the extraction of longitudinal evidence of strategic idea retention.

The cognitive work of top management strategists is the next natural domain of research.
The accepted wisdom used to be that successful strategies are found in the “mind of the
strategist” (Ohmae, 1982). Yet, we know very little of the body of the strategist, despite
mounting evidence on the embodied nature of cognitive processes and cognitive work
(Shapiro, 2014). Even budding “great minds,” such as military generals who grow to
become great strategists, begin their careers at boot camp; and composers and conductors
of classical music are required to learn to play instruments in each of the major categories
(strings, wind instruments, percussion, etc.). The highly analytical work that generals and
composers do is built on disciplining the body to have a “feel” for the organizational
practice to be conducted or commanded. The ways in which strategy is founded on an
embodied sense of operational practice is an unexplored domain of research, at least partly
accessible with video methods. The methodological techniques we have presented can be
used, for instance, to further understand how strategists use embodied metaphors when
making sense of their environments (Heracleous and Jacobs, 2011) and narrating the
future of their organizations (Barry and Elmes, 1997).

A related domain concerns the emotional foundation of strategy and strategizing.
Although both strategizing and the management of strategic change are emotional as well
as analytical in foundation (see Huy, 2012, for review), we know little about how
emotional processes influence strategizing. This is likely due to the scarcity of video-based
studies of strategic management, which may well be the only method to facilitate the
rigorous examination of emotions as they are expressed in strategizing contexts (Liu and
Maitlis, 2014).

Between individual strategists, in the intersubjective domain, the fate of strategies is
decided in interpersonal “contests” (Kaplan, 2008). Such contests are by nature cognitive,
political, rhetorical, and intellectual, but they may also be embodied contests (like “staring
contests”) during which bodies, as well as the words they use, determine winners and
losers. As convincing words and powerful arguments are ways of influencing strategic
decisions, so are steady gazes, powerful postures, and commanding voices. At the
intersubjective level, video methods can inform us on how bodies are used in winning or
losing framing contests (Kaplan, 2008) with some organizational futures prevailing over others. Discursive (see, e.g., Samra-Fredericks, 2003; Sonenshein, 2010; Vaara and Tienari, 2011) and political (Denis, Lamothe, and Langley, 2001; Kaplan, 2008) accounts of strategy contests have provided powerful explanations of why certain strategies win over others. Video analysis can enhance such accounts by introducing an entirely new dimension through the featuring of the moving, thinking, and feeling body.

Beyond embodied cognition in the strictest sense, the wider domain of socio-materiality yields itself well to video-based work (Balogun et al., 2014; Vaara and Whittington, 2012). Cognitive work is a distributed phenomenon that occurs between the bodies of individuals positioned in constellations of physical objects endowed with meaning, such as technologies and other artifacts (Barley, 1986; Faraj and Xiao, 2006; Hutchins, 1995; Kaplan, 2011). How such socio-material constellations produce strategies opens a set of unanswered questions for strategy research, accessible through video research. For instance, how do artifacts act as carriers of meaning in collective sensemaking in strategy formation and execution (Balogun et al., 2014)? Similarly, do organizational strategies get encoded in particular physical objects and to what outcomes? How does the design of organizational spaces influence strategy (Fahy, Easterby-Smith, and Lervik, 2014; Kornberger and Clegg, 2004; Whittington, 2006)? Detailing, sequencing, and patterning allow scholars to trace the development of strategy in such socio-material settings within and across strategizing episodes (Hendry and Seidl, 2003).

The use of our three techniques gives the researcher access into unexplored aspects of strategy work in organizations with rich detail. The techniques, and video-based methods more broadly, have the potential of illuminating blind spots in our overall conception of how strategy develops in organizations. While a lot of ground has been covered through rigorous tracking of the development of organizational strategy by strategy process researchers in particular (Hutzschenreuter and Kleindienst, 2006), this work has mainly built on textual data (Mintzberg, 2007; Mirabeau and Maguire, 2014). Video methods have the potential of completing the picture by providing researchers with a view on the dynamic, spatio-temporal, and socio-material nature of strategy as it is just taking form.

ACKNOWLEDGEMENTS

The authors thank three anonymous reviewers and the editors Sarah Kaplan and Will Mitchell for their insightful suggestions. We also wish to thank Feng Liu for her apt comments, and the participants in the Cass Business School research seminar, the Aalto University School of Business HOTREG seminar, the Hanken School of Economics ethnography seminar as well as Samer Faraj and other participants at our open lecture on video-based methods at McGill University for various insights. We also thank Liisa Gylfe for her assistance with graphic design. We are grateful for financial support from the Foundation for Economic Research in Helsinki, Finland.
REFERENCES

References marked with asterisk have been cited within the supporting information.


Sonenshein S. 2010. We’re changing— or are we? Untangling the role of progressive, regressive, and stability narratives during strategic change implementation. Academy of Management Journal 53(3): 477 – 512.


**SUPPORTING INFORMATION**

Additional supporting information may be found in the online version of this article:
Appendix S1. Producing and publishing video data
Appendix S2. Glossary


 Orchestra conductors are concerned with the collective emotions of their organization. Conductors influence emotions in a visual, embodied and open way in order to create a common understanding of goals. Zooming out to other organizations we face the question: are there specific techniques through which organizational members, like conductors, manage emotions? More specifically, what is the role of the human body in the emotions experienced during strategy work? If organizational strategies are embodied in managers who have risen to the top while pursuing a particular set of strategic initiatives, then in what way are strategies embodied in these managers?

The strategy work of middle managers forms the core empirical context of this thesis. I engaged in intense video shadowing of middle managers at a national public service broadcasting organization. The middle managers faced the challenging situation of acting as ‘linking pins’ between the organization’s strategy and the day-to-day workings of the creative media professionals. Through video analysis I study the multimodal (verbal and embodied) practices through which middle managers channel the top-down and bottom-up flows in the strategy process.

The findings of this thesis are threefold. First, I highlight that we need to pay increased attention to the affective reactions occurring during strategy work. Second, I argue for an embodied perspective on the creative idea generation process, and propose that we need a multimodal lens to appreciate how groups are energized into committing to novel strategic ideas. Finally, I suggest a methodological tool-kit for analyzing video data and extracting theoretically meaningful patterns.