

Stuck in the Middle with Agile

Middle Managers' Fragmented Sensemaking

Adam Hofstedt Fröberg 22695

Max Oskar Andersson 23625

Abstract: Agile is rising in popularity and is increasingly being adopted by large organizations. When organizational change is initiated by senior managers together with other change initiators, middle managers become key actors as they receive instructions, make interpretations, and pass on new instructions about the change to their subordinates. In other words, middle managers act as intermediaries between the top-level organization and the line organization. Drawing on literature from sensemaking, our focus is on understanding how these interpretations are created. Through an inductive case-study, we examine the sensemaking process of middle managers at a department of a large industrial organization in Sweden. In the study we analyze the middle managers' interpretations of Agile and the accompanying organizational changes. Our findings show how fragmented sensemaking illustrates the situation at the department, where middle managers have made their own individual interpretations of Agile in the absence of detailed instruction and support from senior leadership and change initiators. Contributing to this fragmentation is an organizational structure with autonomous groups called 'tribes', and the vague nature of Agile as an organizational phenomenon. Our findings imply that the nature of the organizational phenomenon, being implemented in an organization, can affect the proliferation of fragmented sensemaking. Our findings also imply that it may be problematic to copy an organizational structure from one organization to another without considering the consequent effects on communication, interaction, and alignment within the organization.

Keywords: sensemaking, middle managers, agile, organizational change

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2 Introduction

In management magazines such as the Harvard Business Review, it is argued that agile methods are rising in popularity as a radical alternative to traditional command-and-control styles of management (Rigby, Sutherland, & Takeuchi, 2016). Consisting of a set of alternative values, principles, and practices, agile methods are seen by practitioners as a successful way to boost efficiency in organizations, e.g., achieving higher quality, delivering faster and on time, and improving the morale of employees (Rigby et al., 2016). Accompanying this is a wish to focus on end-customers and their needs (Paasivaara, Behm, Lassenius, & Hallikainen, 2018; Rigby et al., 2016).

As a part of this development, Agile as an organizational phenomenon is now being used to refer to methods in everything from programming, new product development, and project management, to marketing, human resource management, and even as a philosophy to run senior leadership groups and whole companies (Rigby et al., 2016).

Consequently, agile transformations where large companies seek to increase speed and flexibility in their deliveries of products are increasingly becoming the norm, as they turn away from their previous processes, often by drawing inspiration from companies born in the digital era to design new processes and structures (Gerster, Dremel, Brenner, & Kelker, 2020).

A major organizational change, such as an agile transformation, where organizational members encounter moments of ambiguity and uncertainty is accompanied by employees interpreting what is going on around them (Maitlis & Christianson, 2014). One avenue in the field of organizational studies concerns applying sensemaking theory to explain how these interpretations are created. In this context many theoretical studies using sensemaking have focused on the critical role of managers in making these types of interpretations (Maitlis & Christianson, 2014). Middle managers, in particular, have been identified as “lynchpins” (Huy, 2002; Lüscher & Lewis, 2008) of organizational change, where they act as “change intermediaries” (Balogun, 2003) between the top-level managers and the line organisation.

The purpose of this thesis is to explore the interpretations of middle managers in a development and operations work environment that has adopted Agile. The department we were invited to study for this thesis is relatively new and part of a large industrial company in Sweden. A major organizational restructuring was performed at the department beginning in 2017, and a new form of organizational structure was introduced. The transformation has not come without issues, and at the time of our data collection in the spring of 2020 these issues were still forming the basis of an ongoing discussion.

Our focus is on understanding the process of sensemaking at the department by examining middle managers and their interpretations of Agile, as well as their interpretations of accompanying organizational changes. Therefore, the guiding research question for our thesis is as follows:

How do middle managers make sense of Agile introduced in an organizational change initiative?

Our findings show how fragmented sensemaking (Maitlis, 2005) illustrates the situation at the department, where middle managers (and other employees) have made their own individual interpretations of Agile in the absence of senior leadership and support from change initiators.

Contributing to this fragmentation is also an organizational structure with autonomous groups called “tribes”, and the perceived vague nature of Agile as an organizational phenomenon.

2.1 Delimitations

The data collection for this thesis took place in the spring of 2020 and was therefore affected by the physical closure of the department and the furlough of most employees beginning in March 2020 due to the spread of the SARS-CoV-2 virus. Even though our interview process resumed in the form of digital interviews during March and April, this thesis analyzes the situation at the department before the impact of the Covid-19 pandemic. We also limited our study to the scope of the department for the sake of clarity.

3 Literature Review

This review provides an overview on the state of academic literature on Agile, briefly discusses the definition of Agile and its origin, and narrows down the role of middle managers as change recipients in the context of organizational change. The other outcome of this review, following our inductive approach, is to find suitable theoretical concepts that our second order analysis will build upon. To this end, we want to show that the literature on Agile offers insufficient theoretical explanations and to elaborate on literature from the sensemaking school of organization that has applied theoretical concepts to contexts of organizational change and explained the role of managers in these processes. In accordance with the systematic inductive approach presented by Gioia, Corley, & Hamilton (2013), our literature review aims to achieve this purpose without aspiring to be extensive, nor exhaustive.

3.1 Development of Agile as an Organizational Phenomenon

In the academic literature, Agile is often categorized under the generic term agile software development methods, even though its adaptations are no longer restricted to software development (Rigby et al., 2016). Originally, agile software development was defined as a set of iterative and incremental methods (Dikert, Paasivaara, & Lassenius, 2016), which rose to fame and subsequently developed through the spread of the so-called “Agile manifesto”. The “Agile manifesto” is a document that captures the “agile philosophy” (Dikert et al., 2016), or mindset of a group of software development practitioners that sought to reform traditional software development methods by building on various alternative best-practices from the field of software engineering (Conboy & Fitzgerald, 2004; Dikert et al., 2016; Dybå & Dingsøyr, 2008). This ‘call for action’ gave rise to several different software development methods with different focus areas and different degrees of spread and popularity (Dybå & Dingsøyr, 2008). The perceived benefits and positive results of these methods at the team level have led to the growing trend where Agile is implemented in larger projects and even at the organizational level in large companies (Dikert et al., 2016).

3.1.1 Adoption of Agile in Large Organizations

A growing body of empirical studies debate the suitability of, and the challenges in, adopting agile methods and mindsets in large companies and organizations (Dikert et al., 2016; Gerster et al., 2020; Paasivaara et al., 2018).

Paasivaara et al. (2018) conducted a case study on the large-scale agile transformation at Ericsson and describe the experimentation with different configurations of teams, the challenges that arose, and how the company mitigated them. The study builds towards lessons

learned that consist of recommendations for large-scale agile transformations, such as emphasizing experimentation, and ensuring a common direction for the transformation through ongoing training and coaching.

The outcome of the review by Dikert et al. (2016) was a listing of reported challenges and success factors in the adoption of Agile in large-scale organizations. The most important success factors were typically related to recognized change leadership, managerial support, and understanding the mindset of Agile, while the implementation happened gradually with a focus on experimentation and starting from pilot teams. Among the main challenges of transformation, they identified many problems that are recurring in most organizational change contexts, such as general change resistance, a lack of investment in retraining of staff, and various coordination and control issues. In addition to this, the actions of managers at different levels either eased the transformation, or made it more difficult (Dikert et al., 2016).

3.1.2 State of the Literature on Agile

There have been several attempts at systematic reviews (Conboy & Fitzgerald, 2004; Dikert et al., 2016; Dingsøyr, Nerur, Balijepally, & Moe, 2012; Dybå & Dingsøyr, 2008) on the topic of Agile, often under the generic term agile software development. Dybå & Dingsøyr (2008) present a systematic review on the state of the academic literature, that the later reviews progressively build upon. The review criticizes a lack of academic research and quality assessment of studies in this field. Further, they expand their critique with the notion that practitioners and researchers must contend with a vast array of practitioner literature to obtain any overview on the subject. The types of studies reviewed in this field tend to be exploratory or descriptive, typically examining the spread of various software development methods which fall under the Agile category (Conboy & Fitzgerald, 2004; Dybå & Dingsøyr, 2008). Dikert et al. (2016) also noted that among the papers that made their final review “90% [...] were experience reports, indicating a lack of sound academic research on the topic.” (Dikert et al., 2016, p. 87). Our own review for this thesis indicates that the descriptions of the research area by Conboy & Fitzgerald (2004), Dikert et al. (2016), and Dybå & Dingsøyr (2008) remain apt, and that most of the academic research on the subject originates from positivist researchers in more technical publications. Since the adoption of Agile as an organizational phenomenon is progressing rapidly in large-scale contexts, more studies and more interest from other academic paradigms of management and organizational research is needed. There are also many possibilities to adapt theories from other fields to the various empirical studies that have been made. Our study and research question will hopefully contribute towards raising interest in the theorization around Agile as an organizational phenomenon, which in its current state is under-researched.

Conboy & Fitzgerald (2004) suggest that the many diverse interpretations that exist of agile methods, as used in both software development and manufacturing, are vague. Conboy & Fitzgerald (2004) also mention that organizational agile development methods have been criticized by practitioners and academics for being vague and non-scientific, possibly not warranting the label of ‘newness’, and that they are suitable almost exclusively for smaller teams and organizations. Critically, the inherent ability to adapt agile methods to the capabilities or preferences of the team or company has made them suitable to use in small-scale team-based work and in startups that have the flexibility to experiment with new organizational designs. This moldability can be said to have led to Agile receiving critique for being vague and open to interpretation, which has made it harder to implement in a large-scale setting. This is

illustrated in an example presented by Dikert et al. (2016) regarding misconceptions about agile concepts. In the example, these misconceptions are caused by either a lack of general understanding of agile values, or the application of agile practices without purpose, as managers may interpret these agile concepts as equal to increased efficiency and faster product delivery (Dikert et al., 2016).

On the other hand, the moldability and flexibility of Agile may have enabled the rapid adoption at companies ‘born digital’, which have then been used as inspiration when looking for success-stories. As one of these companies, Spotify is often used as a template of how to design a “fully agile enterprise” (Gerster et al., 2020). Gerster et al. (2020) examined among other things the inspirational effect of Spotify in an exploratory case study of fifteen established enterprises adopting Agile. They found that forms of organizational design are being adopted by large enterprises sometimes mirroring the example of Spotify, and that these designs are not limited to IT functions since these initiatives also extend to other business units outside regular IT.

3.1.3 On the Definition of Agile

After this review of the literature on Agile, we believe it is further necessary to clarify what we are referring to, or at least what context we are referring to, when we talk about Agile.

This thesis explores the meaning of Agile to individuals at a software development and operations department. In the findings section we will show that individuals, even within this narrow context, produce many different definitions of Agile. This is one of the major insights that this thesis builds upon.

To alleviate some of the obscurity concerning the word Agile, for the sake of increased clarity in our specific thesis, we have tried to clearly detail what specific researchers mean by Agile in the literature review, as we discussed their contributions.

By contrast, for the rest of this thesis, we intentionally maintain a wide definition of Agile. Therefore, whenever we refer to it throughout this thesis, we regard it as an organizational phenomenon. A phenomenon that has been introduced at the organizational department we studied (a software development and operations department of a large and established industrial organization). We purposely choose not to provide a narrower definition.

The crucial point is that we explore how Agile is hard to define even for the people working in software development contexts, and that individuals in such contexts have a wide range of definitions and understanding of what Agile is. We do not try to define Agile; we try to show that, in the context of our study, it is undefined.

However, recognizing that a purported adoption of Agile in a large-scale context entails organizational changes, and that managers at various levels play a part in determining the success or failure of these transitions, we want to elaborate on the literature that has examined the role of managers in the context of organizational change.

3.2 Middle Managers’ Role in Organizational Change

For several years, the focus of studies on managers’ impact on organizational change was directed towards top-level managers and their role in continuously shaping the identity of the organization through their actions and interpretations (Corley & Gioia, 2004; Gioia & Chittipeddi, 1991; Gioia, Thomas, Clark, & Chittipeddi, 1994; Maitlis & Christianson, 2014). Top-level managers and other executives often design and formulate the strategies around

organizational change, but middle managers are often overlooked in these processes, even though they function as change agents that seek to realize (or resist) the top-level directives (Balogun, 2003; Balogun & Johnson, 2004; Floyd & Wooldridge, 1997; Lüscher & Lewis, 2008). According to Balogun (2003) and Huy (2001, 2002), middle managers were at one point considered primary resisters of any change initiatives. This is in contrast to findings that pointed to the opposite, that they made proactive contributions to innovation and change (Balogun, 2003; Huy, 2001, 2002).

This negative view has subsequently changed, or is at least the subject of a more nuanced debate (Balogun, 2003), with Huy (2001) stating that “middle managers are at least as important as senior executives in facilitating radical change.” (Huy, 2001, p. 75). From this perspective middle managers are the “lynchpins” (Huy, 2002; Lüscher & Lewis, 2008) of organizational change where they represent an intermediary between the top-level and the line, connecting strategic and operational levels. (Floyd & Wooldridge, 1997; Huy, 2002). They do this through mediation, negotiation, and interpretation (Floyd & Wooldridge, 1997), and play active roles in shaping the strategies of the organization (Balogun & Johnson, 2005; Floyd & Wooldridge, 1997; Huy, 2002).

Huy (2001) found that middle managers make four distinctive contributions. Firstly, they realize entrepreneurial ideas of organizational improvement if they can get an audience for them. Secondly, they create wider and deeper informal networks than the typical senior executive, that they in turn can leverage to make lasting changes. Thirdly, they remain closer to their employees’ feelings and emotions during an organizational change and can effectively attune and influence said change. Lastly, they can strike a balance between continuity and change by preventing a total crisis where the organization either falls into extreme inertia or extreme chaos. In the subsequent inductive field study of an attempt at radical change in a large firm, Huy (2002) discussed two apparently opposing methods of middle managers for managing emotions in their work groups. Low levels of commitment led to organizational inertia, while high personal commitment to the change with little attention to the emotions in the work groups led to chaos. Threading the needle, by balancing the personal commitments and paying attention to the recipients’ emotions in the work groups allowed for ‘emotional balancing’ which in turn facilitated the organizational adaption to the change.

Balogun (2003) refined these ideas in her study to offer an alternative to the perception of middle managers as resisters to change. She found that middle managers can be characterized as “change intermediaries” that take on different role requirements during a change implementation process. They go through personal change, assist others through change, and implement changes in their own departments while also ensuring that the business keeps on going. Expanding on the traditional view that these managers were typically involved in coordination and management tasks in the organization, Balogun (2003) added sensemaking as one of their key activities. Sensemaking could be seen in the key aspect of middle managers as change intermediaries, their “interpretation of the change intent”, which guided their actions and affected the outcome of the change. The middle managers created and exchanged gossip, stories, and experiences in their efforts to interpret what was expected of them in the new organization. To do this they drew on formal and informal communication events such as workshops and other meetings to form and share interpretations with other employees.

The sensemaking approach to studies of middle managers was then further expanded upon by Balogun & Johnson (2004, 2005), which we discuss in our theoretical framework.

Lüscher & Lewis (2008) conducted action research at the Danish Lego Company to assist managers in making sense of issues that surfaced after a major organizational restructuring. By building on sensemaking theory viewed through a lens of organizational paradoxes, they highlighted that the managers were challenged on three different levels. The managers had to contend with changing relationships (“paradoxes of belonging”), a changing organization (“paradoxes of organizing”), and changing managerial work roles (“paradoxes of performing”).

More recently, several studies have examined the impact of middle managers on change in the context of national health services (Birken, Lee, & Weiner, 2012; Conway & Monks, 2011). This is another example of a setting where large established organizations are faced with challenging transitions and changes. Consequently, given their importance as intermediaries (Balogun, 2003; Floyd & Wooldridge, 1997; Huy, 2002) managers and their interpretations of change remain of interest both for change practitioners and academia (Maitlis & Christianson, 2014).

3.3 Theoretical Framework

3.3.1 Sensemaking

Following our review on the role of middle managers in organizational transformation, we settled on sensemaking as the basis for our theoretical framework and subsequent analysis. We made this choice because sensemaking is particularly useful in filling important gaps in organizational theory (Weick, Sutcliffe, & Obstfeld, 2005) and of great use when faced with an ambiguous and confusing setting (Maitlis & Christianson, 2014; Weick, 1988; Weick, 1993; Weick, 1995; Weick & Roberts, 1993; Weick et al., 2005). We believe the lack of theorizing regarding Agile constitutes a clear gap in organizational theory, and that our empirical setting is both ambiguous and confusing. The literature on sensemaking and its many adaptations is therefore deemed a good fit for our study.

Sensemaking is an organizational-level (meso) management theory (Bolander, 2020) with its origins attributed to Karl E. Weick who increasingly applied the concept to organizational studies (Glynn & Watkiss, 2020; Weick, 1979; Weick, 1988; Weick, 1993; Weick, 1995; Weick & Roberts, 1993; Weick et al., 2005).

Maitlis & Christianson (2014) offer a synthesized definition based on the literature up to the point of their publication:

“Sensemaking—the process through which individuals work to understand novel, unexpected, or confusing events—has become a critically important topic in the study of organizations. When organizational members encounter moments of ambiguity or uncertainty, they seek to clarify what is going on by extracting and interpreting cues from their environment, using these as the basis for a plausible account that provides order and ‘makes sense’ of what has occurred” (Maitlis & Christianson, 2014, p. 58)

While there is a basic consensus about what constitutes sensemaking and its mechanisms (Maitlis & Christianson, 2014), ever since Weick (1995) there has been a plethora of empirical studies branching out into different methodologies. Today, there is some degree of fragmentation in the literature (Maitlis & Christianson, 2014):

“Such variations in how sensemaking is conceptualized are reflected in a range of definitions for sensemaking. In addition, there is often little dialogue across streams of research that draw upon sensemaking, despite common interests and questions. Resulting from these frequently unarticulated differences and disconnected conversations is confusion about the sensemaking literature and a lack

of clarity about where future research on sensemaking should be directed.” (Maitlis & Christianson, 2014, pp. 58-59)

Maitlis & Christianson (2014) distinguish between two main bodies in the sensemaking literature: studies examining how sense is made in organizations, and studies on the impact of sensemaking on key organizational processes, including, but not limited to, strategic change and decision-making, innovation and creativity, and organizational learning.

In this thesis we focus on the former body of literature, how sense is made in organizations. One avenue of research within this research body is to examine which group or which individuals shape the sensemaking in the organization: “Those who shape sensemaking in organizations” (Maitlis & Christianson, 2014, p. 79).

For this discussion, leaders and other stakeholders become relevant, as variations in their relative influence shape the form of sensemaking process that is produced (Maitlis, 2005; Maitlis & Christianson, 2014). Maitlis (2005), as cited in Maitlis & Christianson (2014, p.79), distinguishes between four different forms of organizational sensemaking:

1. “Guided sensemaking occurs when leaders are very energetic in constructing and promoting understandings and explanations of events, and stakeholders also are actively engaged in attempting to shape beliefs about certain elements of the issues.”
2. “Fragmented sensemaking processes emerge when stakeholders raise issues, generate accounts of a situation, and argue for potential solutions in the context of leaders who do not try to organize or control discussions.”
3. “Restricted sensemaking results from leaders promoting overarching accounts of issues they encounter which stakeholders tend to accept with relatively few attempts to provide alternative understandings.”
4. “Minimal sensemaking occurs when both leaders and stakeholders await others’ interpretations of and reactions to an issue, which typically come in response to some external trigger.”

Maitlis (2005) further expands on the four different forms of organizational sensemaking. She examines, among other things, the outcome of the different types of organizational sensemaking. Important for our thesis are the observed outcomes of fragmented sensemaking. Fragmented sensemaking tended to produce multiple individualistic accounts that were rarely integrated or reconciled, and that represented the construction of a single individual or group (Maitlis, 2005).

When examining sensemaking literature through the lens of Maitlis’ framework, it is noted that leaders (typically senior management) are most often seen as being in the driving seat, while also occasionally reacting to input from other organizational stakeholders. Therefore, restricted sensemaking is the type of sensemaking most often explored in the literature (Maitlis & Christianson, 2014). This focus on the role of senior management, especially their interaction with stakeholders and the use of symbols and metaphors, is seen in a number of very popular studies within the sensemaking field (Corley & Gioia, 2004; Gioia & Chittipeddi, 1991; Gioia et al., 1994).

Fragmented sensemaking has been the topic of fewer studies (Maitlis & Christianson, 2014). According to Maitlis & Christianson (2014), two prominent contributions on this topic are from Balogun & Johnson (2004, 2005). With a special focus on sensemaking as performed by middle

managers they together, or Balogun alone, produced four separate studies in the mid-2000s (Balogun, 2003; Balogun & Johnson, 2004; Balogun & Johnson, 2005; Balogun, 2006) examining middle managers as change recipients whose sensemaking concerning change initiatives came to affect the outcomes of said change. Their analyses showed middle managers playing an active role in interpreting the meaning of events among themselves, within the teams that they led, and together with senior managers. Their interpretations manifested themselves through both vertical and lateral social interactions, but more so through the latter. Balogun & Johnson (2004, 2005) put strong emphasis on the focal importance of lateral interactions for middle management sensemaking, especially in contexts where senior management had little impact on the sensemaking process.

Despite Balogun & Johnson's efforts, the role of middle managers in organizational sensemaking remains an under-researched area of study. Middle managers play a major role in realizing change and affecting change outcomes, but in comparison with the number of studies on top management impact, their role has not received as much attention (Balogun & Johnson, 2004; Balogun & Johnson, 2005; Floyd & Wooldridge, 1997; Huy, 2002).

Through this thesis we address the call for more research on the role of middle managers in organizational change and the lack of academic research on the, amongst practitioners, extremely popular phenomenon of Agile.

However, we also want to address the fact that much progress has been made within the field of sensemaking since Balogun & Johnson published their studies on middle managers and sensemaking. Much was written on cognitive sensemaking around the time of Balogun & Johnsons publications and their models are considered part of the cognitive sensemaking literature (Brown, Colville, & Pye, 2015; Maitlis & Christianson, 2014).

Clarifying what has happened since then, Brown et al. (2015) argue that most sensemaking scholars would agree on two things. Firstly, they would agree with Weick et al. (2005) that "organization emerges from an ongoing process in which people organize to make sense of equivocal inputs and enact that sense back into the world to make it more orderly" (Brown et al., 2015, p. 267). Secondly, they would agree with Sandberg & Tsoukas (2015) that this "organizing is achieved to the extent that sensemaking is accomplished" (Brown et al., 2015, p. 267). However, Brown et al. (2015) also argue that there are still many discussions and debates on how sensemaking is to be understood, and how it is best studied. Recognizing this heterogeneity in the sensemaking literature, Brown et al. (2015) note that there is not any real consensus on how sensemaking is best understood to this day. They distinguish between individual-cognitive models of sensemaking (understood by schemata and mental maps e.g., the approach of Balogun & Johnson (2004, 2005)), collective-social understandings of interactions between people, and discursive processes of language and communication (e.g., Näslund & Perner (2012)). Even more recently, Sandberg & Tsoukas (2020) have been known to advocate a "phenomenological perspective" on sensemaking.

While we want to recognize that some sensemaking scholars have moved on to alternative understandings, there are still studies that have used the cognitive perspectives more recently. For example, Hahn, Preuss, Pinkse, & Figge (2014) investigated how corporate sustainability efforts were perceived by managers using two different sets of cognitive frames.

Moreover, our inductive process and construction of first order themes led us to a context-specific search for theories and studies that had come across middle managers specifically in a context of organizational change. For this inductive purpose, to explain the interpretations of middle managers regarding a transition to Agile within their department, we believe that cognitive sensemaking theory introduced by Balogun & Johnson (2004, 2005) provides us with a useful theoretical toolkit for analyzing and understanding our observations.

In the next subsection we elaborate on several theoretical concepts that we employ extensively in the analysis of our empirical data.

3.3.2 Schemata, Sensemaking Triggers, and Social Processes of Interaction

Our analysis will utilize many of the same theoretical concepts as Balogun (2003, 2006) together with Balogun & Johnson (2004, 2005) made use of in their analyses of organizational change. We adapt much of the theory they used and as such we take inspiration from them in our analysis. The concepts we introduce here are all constituents of (cognitive) organizational sensemaking theory. The major concepts that we use in our analysis are schemata, sensemaking triggers, and social processes of interaction.

3.3.2.1 Schemata

Schemata are conceptualized as “the mental models held by individuals” or “structured units or clusters of thematically related knowledge” (Balogun & Johnson, 2004, 2005). Schemata are also interchangeably referred to as “interpretive schemes” or sometimes just “interpretations” (Balogun & Johnson, 2004, 2005). These mental models consist of generic concepts created from memories of past experiences. A schema can be envisioned as the sum of multiple subschemata, all together they constitute a cognitive framework. What distinguishes one schema or subschema from others, are perceived similarities and differences between them. These, in turn, enable categorization. Such sorting of information by individuals enables them to manage data input from a complex reality (Balogun & Johnson, 2004). The established schemata, the stored and structured knowledge, are in turn used by individuals to interpret the meaning of new experiences, affecting if and how they respond to them. As schemata couple experiences with meaning, they simultaneously contribute to how individuals construct their reality (Balogun & Johnson, 2004, 2005).

3.3.2.1.1 Organizational Schemata

Schemata, as a core concept, are mentally constructed by and associated with individual people. Balogun & Johnson (2004, 2005) reference other researchers (Bartunek, 1984; Gioia et al., 1994; Moch & Bartunek, 1990) that extend the concept further, conceptualizing the existence of schemata collectively shared between different people in a social context such as an organization. They call this concept organizational schemata, or interpretive schemes. Organizational schemata can exist on an organizational level, or among members of a subgroup in an organization (Moch & Bartunek, 1990, as cited in Balogun & Johnson, 2004).

Organizational schemata are frames of reference, or assumptions, shared among members of an organization (or groups within it). Organizational schemata are suggested to determine the way organizational members conceive of their organization and their environment. This in turn affects how members act in different situations (Balogun & Johnson, 2004, 2005).

While organizational schemata are conceptually similar to individual schemata, they are not everything that their individual counterparts are (Balogun & Johnson, 2004, 2005). Cognition is an individual phenomenon (Larson & Christensen, 1993) and therefore, any organizational schema that does exist must be based upon the individual schemata of the organization's members. It is commonality, or overlap, between individual schemata that creates organizational schemata (Balogun & Johnson, 2004, 2005). The extent of this commonality (to which degree individuals share schemata) is debated, making it a contentious issue (Balogun & Johnson, 2004).

In this debate Balogun & Johnson (2004, p. 525) agree with Barr & Huff (1997), Bartunek (1984), and Langfield-Smith (1992) that it is "likely" that "some level of shared understanding" exists during times of stability (when existing schemata and routines etc. remain unchallenged). They believe it likely, even though they acknowledge that coordinated action can occur despite an absence of shared meaning (with the help of shared communication mechanisms). The following year, Balogun & Johnson (2005, p. 1575) go further and state that during times of stability "some level of shared understanding needs to exist" for coordinated action to happen, while still citing the same sources as they did the previous year.

Like individual schemata, organizational schemata are said to help construct reality for the individuals that share them (Balogun & Johnson, 2005). The commonality between individual schemata which make up organizational schemata leads to an "enacted reality" at a group level. The enacted reality consists of "routines, rituals, systems, norms, assumptions and beliefs" (Balogun & Johnson, 2005). Weick (1995, as cited in Balogun & Johnson, 2005) refers to this enacted reality as the "level of generic subjectivity", a structured and taken-for-granted reality he associates with "organization". As this generic subjective is re-enacted, the commonality across individual schemata that led to the generic subjective is in turn reinforced (Balogun & Johnson, 2005).

3.3.2.1.2 Schema Change

Both individual schemata as well as organizational schemata can change over time. While there is seemingly a consensus that schema change involves sensemaking, there is debate regarding the nature of transition from one schema to the next, be it through synthesis, replacement, or incremental finetuning and differentiation. As a result, different models to conceptualize each of these processes have been proposed (Balogun & Johnson, 2004, 2005). Balogun & Johnson (2004) present all these models without declaring a preference for a certain conceptualization. They propose that the different models may be a result of studying different change contexts which have yielded differentiated findings.

Individual schema change can be triggered when the individual encounters new information or experiences that create a gap between their expectations and what they are experiencing (Balogun & Johnson, 2004). The individual enters a more conscious and less automatic sensemaking mode to make sense of what is happening around them. (Balogun & Johnson, 2004, 2005). It should be noted that the above conditions do not always trigger a process of schema change. In fact, schemata are resilient and tend to "endure" despite individuals facing "disconfirmatory evidence" (Balogun & Johnson, 2004).

To the extent that organizational schemata exist, changes in them come about through changes in multiple individuals' personal schemata. However, the relationship between individual and organizational schemata change is more complex and reciprocal than the previous statement

indicates, because the sensemaking that brings about individual schema change is often, if not always, a social process (Balogun & Johnson, 2004, 2005). According to Balogun & Johnson (2004, 2005), individuals enter a more conscious sensemaking mode where they interact with other individuals to make sense of their surroundings. Weick (1995, as cited in Balogun & Johnson, 2005) calls this the “level of intersubjective sensemaking” and it follows after generic subjectivity starts to break down. This sensemaking is performed through conversational and social practices. This includes verbal and written exchanges of information, stories, and experiences, but also non-verbal methods such as physical representations, actions, and behaviors. Through these processes, individuals infer and give meaning, resulting in the creation of new individual and organizational schemata (Balogun & Johnson, 2004, 2005).

Changes in organizational schemata are believed to be intimately tied to organizational change. Organizational change shifts individuals’ schemata which leads to changes in organizational schemata. In turn, sometimes changes in individuals’ and organizational schemata are required for organizational change. Strategic change, or a change from a traditional hierarchy to a more modular organization, are examples of organizational change believed to require a shift in organizational schemata (Balogun & Johnson, 2004, 2005).

3.3.2.2 Sensemaking Triggers and Cyclical Sensemaking

The new information and experiences that trigger conscious sensemaking and schema change are intuitively referred to as sensemaking triggers (Balogun & Johnson, 2004, 2005; Balogun, 2006). Sensemaking triggers can be anything that individuals cannot understand through their existing schemata (Balogun, 2006). Examples of sensemaking triggers in an organizational context include information, instructions, events, actions, and behavior, but also a lack thereof, can trigger sensemaking (Balogun & Johnson, 2005; Balogun, 2006).

In Balogun & Johnson’s (2005) study of a UK firm, so called design flaws during an organizational change initiative were specifically identified as sensemaking triggers. These design flaws included a lack of inter-divisional transition management, no detailed design team output, no contract details early on, and inadequate communication. These four design flaws, that can be summarized as a lack of detailed instruction and support, are mostly attributed to an ad-hoc design team. The design team constructed the rationale for, and outline of, the organizational change initiative at the UK firm. The design team consisted of consultants and senior managers. All design flaws Balogun & Johnson (2005) identify are visible in figure 1 below.

In an organizational context, the process of sensemaking and schema change is believed to be cyclical. As sensemaking triggers result in conscious sensemaking and the development of new schemata, the behaviors and actions individuals engage in because of their new interpretations initiate further sensemaking triggers. This process only ends when new common ways of working are established and ways of interacting become taken for granted (Balogun, 2006).

3.3.2.3 Social Processes of Interaction

Throughout our presentation of sensemaking and schemata we keep referring to social processes, that is, individuals interacting with each other. This holds especially true for our introduction of organizational schemata. In this subsection, we want to expand on the importance of social processes of interaction for established theory on sensemaking in an organizational context, and for theory on schemata.

Balogun & Johnson (2004, 2005) explicitly state how their research highlights “the key role of social interaction in schema development” (Balogun & Johnson, 2004, p. 546), and how the conscious sensemaking reviewed earlier is a “social process” (Balogun & Johnson, 2005). The researchers who Balogun & Johnson build their work on also highlight the integral importance of social practices and social interaction for the sensemaking process, and consequently for the formation and change of individual and organizational schema (Gephart, 1993; Gioia & Chittipeddi, 1991; Gioia et al., 1994; Isabella, 1990; Labianca, Gray, & Brass, 2000; Poole, Gioia, & Gray, 1989; Weick, 1995; Wiley, 1988). Balogun (2006), together with Balogun & Johnson (2005), also find that social processes can reinforce existing schemata.

Balogun & Johnson (2004, 2005) differentiate between vertical and lateral social processes of interaction (which they both further subdivide into verbal, behavioural and non-verbal interactions). The former refers to the interaction between senior and middle managers, while the latter designates interaction amongst middle managers. They also emphasize that social processes can be differentiated based on their formality, ranging from “highly formal verbal (written and spoken) communications in the form of documentation and presentations, to much more informal communications in the form of storytelling and gossip” (Balogun & Johnson, 2005, p. 1595). Balogun & Johnson (2005) find that these two overall classifications (of interactions as either vertical or lateral, and as either formal or informal) relate to each other insofar that vertical social processes more often involve “formal designed interventions” while most lateral interactions between middle managers are “more informal conversational and social practises”. Two of Balogun & Johnson’s (2004, 2005) main research conclusions concern these two classifications. They emphasize the importance of middle managers’ lateral social interactions for shaping change when senior management involvement is absent (Balogun & Johnson, 2004), and suggest that the greatest amount of middle manager sensemaking activity occurs through lateral and informal interactions during this absence of senior management (Balogun & Johnson, 2005).

Yet another important conclusion by Balogun & Johnson (2004) regarding interaction, is how the formal organizational structure of an organization can come to affect the nature of this interaction, as well as the sensemaking performed by middle managers and their groups. They observed that the introduction of a modular organizational structure, that divided the firm into three separate divisions, created “sensemaking fault lines” through fragmenting one group into three new ones. These sensemaking fault lines create three discrete sensemaking processes, one in each newly formed organizational division. The new groups “then had to establish new patterns of interaction and coordination consistent with their new (individual) goals through negotiation with each other” (Balogun & Johnson, 2004, p. 538).

3.3.2.4 A Visual Overview

In their article, *From intended strategies to unintended outcomes: The impact of change recipient sensemaking*, Balogun & Johnson (2005) present a figure summarizing the dynamic relationship they found between many of the concepts we have introduced in our theoretical framework. The visual summary is shown in figure 1. Our review of these provides a general conceptualization of them, but for this specific model, Balogun & Johnson (2005) give more narrow definitions, adapted to their research context:

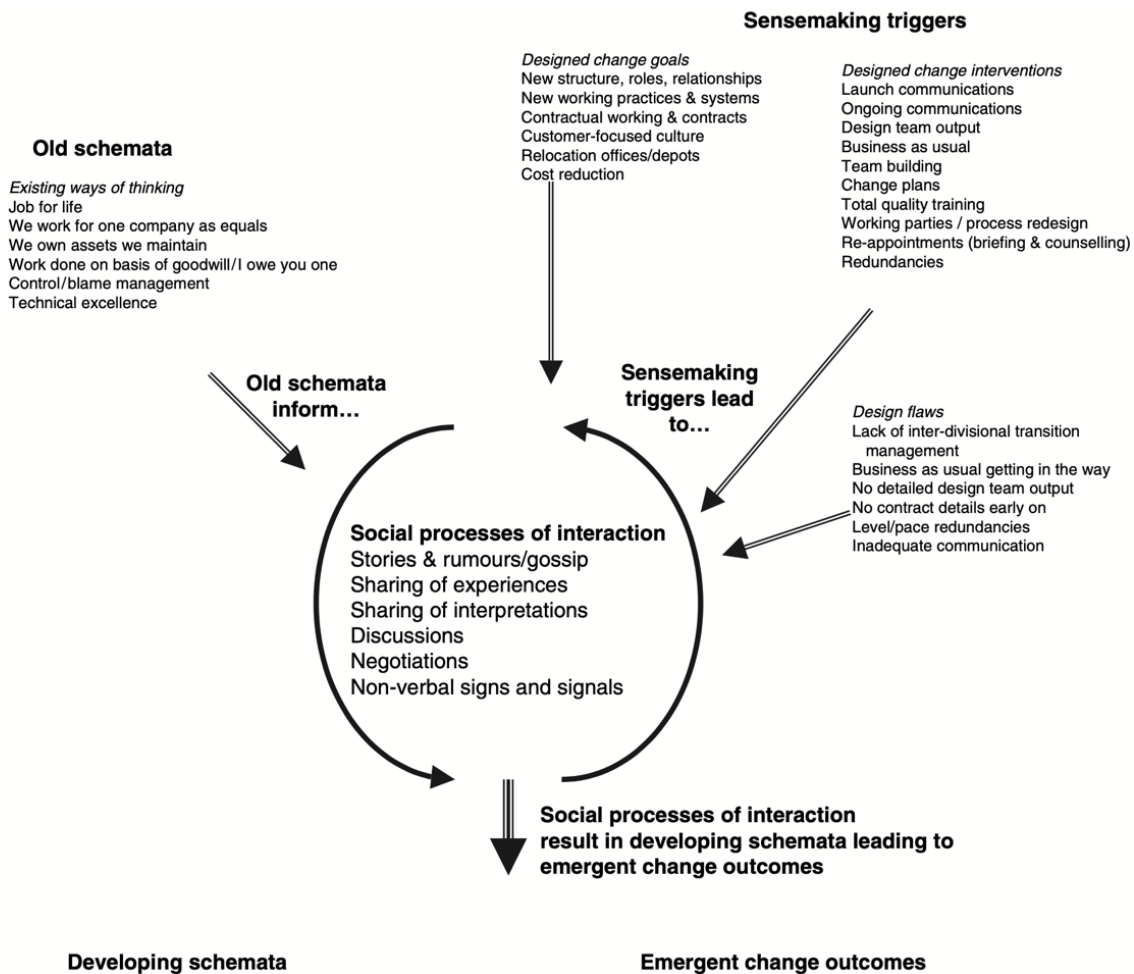


Figure 1: From Balogun & Johnson (2005, p. 1586).

- 'Old schemata' lists the schemata held by the middle managers as organizational change was initiated.
- 'Sensemaking triggers' lists the events triggering intersubjective sensemaking during the organizational change.
- Social processes of interaction are the conversational and social practices middle managers employ in their sensemaking process. The figure lists practices used by middle managers as they "attempted to make sense of the new structure and their new roles and responsibilities" (Balogun & Johnson, 2005, p. 1587).
- 'Developing schemata' lists the middle managers' interpretations of what change is about.

3.3.3 Applicability of Theoretical Framework

We chose to employ sensemaking as the overarching theory for our analysis, and particularly the concepts previously applied by Balogun & Johnson (2004, 2005), because our review of these academic contributions following our 1st order analysis of our data indicated that these theories would have a high applicability and usefulness for our 2nd order analysis. No other theory we encountered in our theoretical review process helped us explain what we had earlier observed better than sensemaking and the concepts highlighted by Balogun & Johnson (2004, 2005).

4 Methodology

We employed an inductive methodological approach based generally on instructions presented in *Business research methods* (Bryman & Bell, 2015) and specifically on the methodology summarized in *Seeking qualitative rigor in inductive research: Notes on the Gioia methodology* (Gioia et al., 2013). As such, our ambition was to employ a systematic approach both when collecting and analyzing our data, and to properly ground our model in our recorded data.

We designed our research around our inductive interpretivist approach and based it on a case study we performed in 2020 at an established industrial organization in Sweden. We gathered data through secondary sources, participant observation, and semi-structured interviews. The data was then coded and analyzed through the assembly of a data structure, and through the creation of an inductive model grounded in our data, as promoted by Gioia et al. (2013). Also, when constructing and employing our methodology, we made sure to reflect on ethical issues and quality considerations. Below, we thoroughly explain our approach, starting with our ontological and epistemological positions.

4.1 Ontology and Epistemology

In our inductive qualitative study, we adopt a constructionist ontological position. We believe, and the theory we employ in our analysis assumes, that social phenomena and categories are social constructions. In this thesis, we look at how individuals at our case study organization produce meanings about social phenomena through social interaction, as well as the categories they employ to help them understand the social world. Both are central tenants of constructionism (Bryman & Bell, 2015).

We also assume an interpretivist epistemological position regarding the study of people and their institutions (Bryman & Bell, 2015). Our focus is on capturing and analyzing the interpretations and meaning created by the individuals we study and to try to see things from their point of view. We believe an interpretivist position is best suited for this subject matter.

In terms of the four paradigms introduced by Burrell & Morgan (1979), our research adopts the interpretative paradigm. We aim to be subjectivist, again viewing the case study organization as socially constructed, and we try to understand it from the point of view of middle managers and other employees within it. Our research is regulatory; our purpose is to describe what is going in the organization, but not to judge it (Bryman & Bell, 2015).

4.2 The Case Study Context

The industrial organization based in Sweden where we performed our study is an established organization in the sense that it has operated for many decades. The case study took place at a specific department within the organization focused on software systems development and operations. Figure 2 shown below gives a simplified overview of the hierarchical organizational structure at the department explored in our study. Two aspects of figure 2 are especially important to note. Firstly, the department is mainly organized into groups of people called “tribes”. At the department we studied, members of different tribes were physically situated in the same office building, but organizationally separated into different groups. Secondly, we consider product owners, business managers, group managers and section heads as middle managers. We consider the head of the department, and that individual's hierarchical superiors and peers, to be senior management.

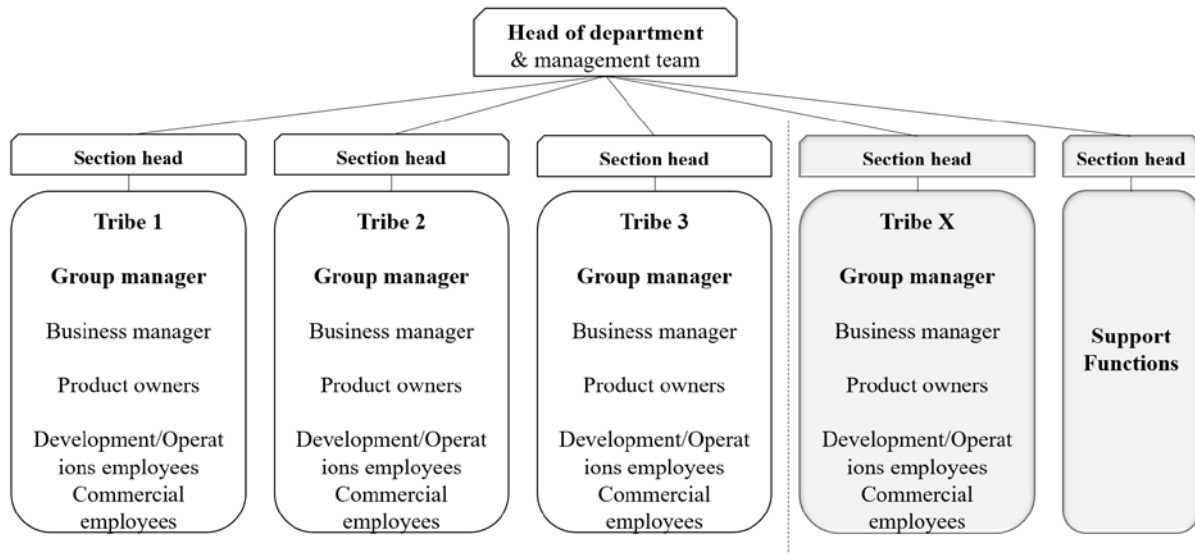


Figure 2: Simplified hierarchical organizational structure

The organizational transformation that introduced Agile and the tribe organizational structure at the department was initiated in 2017. The main initiator was the former department head, who with the help of a specially assigned section head, engineered the main features of the change. Both individuals had left their positions circa a year, or more, before we conducted our study. We refer to them as change initiators throughout the thesis.

4.2.1 Access to Context of Study

The first decision we made as part of our research process was to establish the context of our study. We first came into contact with the organization through our educational institution, where we met researchers dividing their time between the Stockholm School of Economics and the organization of study. They put us in contact with a group manager at the department where we conducted our study. We decided that this organizational department would be the context of our study because they had recently enacted a major organizational change, where most of the department was divided into tribes and the department was also simultaneously made explicitly Agile. Therefore, we thought this to be an interesting department to study.

Long term access was achieved through two meetings at the company's premises in January 2020, where the group manager welcomed us as thesis writers in an official capacity, as we signed contracts and were employed as thesis writers. The company as an organization, and all individuals within it, has been very supportive and cooperative throughout the whole research period. What created issues of access however, was the emergence of the Covid-19 pandemic during our research, something that we will expand on as we explain our data collection.

4.3 Data Collection

We have gathered our data from three different sources: existing documents, participant observation, and semi-structured interviews. The findings we present are grounded in data from the semi-structured interviews, while secondary sources and notes from our participant observation were used by us to achieve a holistic understanding of the research context.

4.3.1 Secondary Sources

In our effort to understand the company and department of study, we read many different documents and other secondary sources, detailing different aspects of the organization. This includes both publicly available documents, such as annual reports, and documents only made available internally. We read these documents to further understand the current and historical context of our study; the products offered, the official organizational structure, organizational stakeholders, etc. However, since these documents are confidential, or could jeopardize the anonymity of the organization, data from them have not been directly included in the final report.

4.3.2 Participant Observation

From the end of January to the beginning of March 2020, we utilized participant observation in our research. We did this to gain a deeper and richer understanding of the organization and the people we were studying. Every day we traveled to the office employed as thesis writers without any other responsibilities. We had our own permanent place of work and participated in meetings and day-to-day activities of one of the ‘tribes’ at the department. When we witnessed something we considered noteworthy, we wrote down our observations and thoughts, either on our provided laptops or in notebooks. In order to facilitate “thick descriptions” (Geertz, 1973) of the environment and culture, we also took pictures of the work environment.

Even though we were officially participants, employed in the tribe, our style of observation was very unobtrusive. Our task of researching had no direct effect on the day-to-day operations of the tribe. We were physically present at meetings, but never contributed to the discussion, and were never asked to. For example, at larger meetings we observed and took notes from a distance, and at smaller meetings we sat with others at the table, being courteous but never involved. We focused on observing and aspired to the ‘fly on the wall’ ideal. We noted down on paper, or on computers, what caught our interest. Like the secondary sources, our observations and associated notes allowed us an improved overall understanding of the context. We employed this understanding both when performing the second interview series, and when analyzing our interview data. We do not directly refer to our pictures, or our observational notes in the findings section. The pictures would risk compromising anonymity, while our explicit intention to ground our findings as proposed by Gioia et al. (2013) meant that we only wanted to present findings in our analysis that could be directly connected to recorded interpretations from organizational members.

Unfortunately, because of the Covid-19 pandemic, our time at the company, and so our participant observations, ended prematurely. From the beginning of March 2020, any interaction with the company was carried out at a distance, though we still had access to the IT-systems through our company laptops.

4.3.3 Semi-structured Interviews

The bulk of our data was produced through the semi-structured, in-depth interviews. Not at any point was access to desired interviewees an issue as no one declined and everyone attended. Our interview sessions can clearly be divided into two series, with a review of our overall interview topics in between the series.

4.3.3.1 First Interview Series

The first interview series consisted of nine interviews and were carried out on location. The audio from the first series of interviews was recorded using smartphones. Simultaneously, one of the authors took summarizing notes of the interview on a laptop, while the other headed the interview.

Keeping with our inductive approach, we carried out these in-depth interviews to gain further understanding of the organization, the department, and different organizational and managerial issues that the interviewees thought salient enough to mention. We did this before any systematic review of theory. We wanted to identify topics of interest that we then could explore further. To do so, we decided that our sampling approach was to cast a wide net. We interviewed employees, interns, and junior as well as senior middle managers. These individuals had various responsibilities across the whole of the department. Another reason for interviewing individuals of different hierarchical seniority and from different tribes, was to ensure that we obtained impressions from all sections and hierarchical levels of the department. See table 1 in appendices for an anonymized list of interviewees during our first interview series.

We designed an interview schedule to encourage interviewees to talk about who they were, what they did, and managerial or organizational aspects that either pleased, frustrated, or interested them (see appendices for the full interview schedule). Efforts were made to align our style of questioning with our open-ended inductive interview schedule. We refrained from interrupting interviewees' chains of thought or divert them from a topic of discussion. Instead, we used follow-up questions to focus in on aspects we thought intriguing. Only when we got the impression that an interviewee had exhausted a topic, and had nothing more to say about it, did we move on to the next open-ended question.

4.3.3.2 Topic Review

After the first series, we reviewed our summarizing notes and created a table outlining some of the organizational topics most often discussed by interviewees. We then decided to rate each topic from one to five based on six dimensions. Both authors rated the topics separately. After reviewing the result, we discussed the top-rated candidates and which to explore further in our inductive investigation.

4.3.3.3 Second Interview Series

The second series consisted of an additional 18 in-depth interviews which were carried out through Microsoft Teams, running on laptops using the company's own IT communication services. The interviews were video recorded using a built-in recording function in Teams.

During this second series, we wanted to focus our attention on our selected topic of middle managers and their thoughts about the organizational change at the department. Our sampling approach for the second interview series was therefore to focus on interviewing what we considered to be middle managers: product owners, business managers, group managers, and section heads. In addition, we wanted to continue listening to the ideas and opinions of other organizational participants at the department, but to a lesser degree, to avoid only receiving descriptions of the organizational environment at the department purported by the middle managers. See table 1 in appendices for an anonymized list of interviewees during our second interview series.

For our new narrowed purpose, we reworked our interview schedule. Still very much an inductive approach, we did not review theory before redesigning it (see appendices for the full interview schedule). The style of questioning was kept open-ended and explorative, and we continued to explore topics seemingly important to the interviewee through the use of follow-up questions, rather than interrupting or intentionally abandoning a topic by moving the interview on to the next planned question. Only when we believed an interviewee had exhausted a topic did we move on to our next question.

4.4 Data Analysis

In the end, the wealth of data collected for analysis amounted to numerous PowerPoints and documents, ten pages of notes from participant observations, dozens of photos, and 27 interviews. The first series of semi-structured interviews resulted in 7 hours (420 minutes) of audio recordings, while the second series produced 19 (1,140 minutes) hours of video recordings. This amounted to roughly 400 pages of transcribed interviews.

To analyze all this data, we employed the approach suggested by Gioia et al. (2013). A data structure was created to ground our findings and subsequent theory development in the data collected. The data structure was then combined with our holistic understanding of the research context to generate an inductive model grounded in the data.

4.4.1 Data Coding

To codify our data, we used the data structure suggested by Gioia et al. (2013). To create a data structure, we deemed it necessary to transcribe the interviews. This allowed us to directly transfer quotes verbatim from interviews and search the documents for phrases, notions, and concepts that we remembered hearing.

This will also allow interested individuals reading this paper to access our raw data and confirm that our findings are indeed grounded in the observations made.

Our data structure consists of seven columns: Interviewee, Interview, Quote, 1st Order Informant Terms, 1st Order Concepts, 2nd Order Themes, and 2nd Order Aggregate Dimensions. A visualization of the data structure is presented in the findings section and labeled as table 2 and figure 3. We took inspiration from Jack (2020) and added three columns (Interviewee, Interview, and Quote), that directly specify and refer to empirical data, to clearly connect first order concepts with specific excerpts of data. The Quote column specifies which numbered quote in the findings section that the informant term summarizes. The Interviewee and Interview columns specify who said the quote and in which interview.

Gioia et al. (2013) refers interchangeably to data points in the 1st order analysis as “informant terms”, “codes”, “categories” and “concepts” when describing the process of codifying, analyzing, screening, and selecting data points. We choose to visualize our analytical categorization process by labeling a first selection as 1st Order Informant Terms and a second level of first order categorization as 1st Order Concepts. For every interview, tens of first order informant terms have been identified and described using interviewees’ own terminology. Subsequently, we sought similarities and differences between the over 300 informant terms. We recognized three recurring observations, still describing them using interviewee terms, and labeling them as 1st Order Concepts. The most informative and striking informant terms

supporting the first order concepts are the ones presented in table 2 and the corresponding quotes are those that appear in the findings section.

Having identified these salient observations, we involved our theoretical framework and the larger narrative we had observed to create second order themes. It should be noted that the theoretical framework presented in this thesis started to emerge during this process, and not before. We did in fact not decide on which overarching theoretical field, and what specific theory within the field, to employ until the first order analysis of our data indicated which theoretical concepts would have a high applicability and usefulness for our second order analysis. This approach also applies to our research question, which final wording materialized during the second order analysis. In other words, we followed Gioia et al. (2013) advice of not having detailed knowledge of relevant literature in advance. Thus, we remained inductive for as long as possible, and avoided confirmation bias.

As we specifically did not want to identify the main theoretical and conceptual terms within our research area before collecting data, we decided to employ a narrative review as our methodology when performing and presenting our literature review and theoretical framework. This choice also aligns well in general with our qualitative, inductive, and interpretative research approach.

While creating the second order themes, the research became more abductive as data was analyzed using existing theory. Lastly, further comparison of similarities and differences allowed us to categorize the remaining second order themes into one aggregate dimension.

The reason why we chose to apply the analysis methodology suggested by Gioia et al. (2013), is because we believed it was our best option to conduct and present high-quality inductive research given the sheer amount of qualitative data collected. Introduced to us by our thesis supervisor, the systematic process and “qualitative rigor” Gioia et al. (2013) offer allowed us to gain an overview and understanding of this initially overwhelming amount of data. Gioia et al. (2013) promise of methodologically forcing abstraction of data and balancing the embeddedness of the interviewee’s view with the 30,000 feet view required for theoretical insights, appeared to us as the process we needed in order to handle the nature and volume of our data.

4.4.2 Inductive Model

The end-product, and one of the main goals, of our research efforts is to construct an inductive model grounded in our data (Gioia et al., 2013). To achieve this goal, we again choose to abide by the methodology suggested by Gioia et al. (2013). The process research we performed therefore required our model to be dynamic rather than static. Our ambition then, like Gioia et al. (2013), was to achieve a model “that shows the dynamic relationships among the emergent concepts that describe or explain the phenomenon of interest and one that makes clear all relevant data-to-theory connections” (Gioia et al., 2013, p. 22). While the data structure clarifies the data-to-theory connections, and so grounds theory in our findings, it remains a static picture.

To showcase the dynamic interrelationships, we constructed a model by assembling a constellation of boxes and arrows, with a special focus on the arrows that “set everything in motion” (Nag, Corley, & Gioia, 2007, as cited in Gioia et al., 2013, p. 22). The arrows are our method of presenting the relational dynamics among our previously identified themes and dimensions. What allowed us to identify these dynamic interrelationships, is our intimate

familiarity and knowledge of our data, in both an overarching “gestalt” sense and in a deep immersive sense (Gioia et al., 2013). Our inductive model is visualized in the findings section, labeled as figure 5.

4.5 Ethical Considerations

We considered the ethical dimension in many ways throughout our research process. All interviews were anonymized to preserve the integrity of individuals. During the interviews, the respondents were also informed of their anonymity in the final product to allow for free and open discussions (Bryman & Bell, 2015) about the topics they wished to discuss and to facilitate expression of honest opinions.

We decided to anonymize the company and the department since we believe this is necessary to preserve the integrity of those involved in the study. While this may have hampered the fluidity of the narrative and perhaps lessened contextual understanding to some degree, this was accepted as we did not want to compromise anyone. Furthermore, we believe that the findings of this thesis can be applied with some generality to many ongoing processes of transition and contexts of organizational change.

4.6 Quality Discussion

The rigorous process for qualitative research described by Gioia et al. (2013) has guided our methodology. This process also guides our quality discussion.

We agree with Gioia et al. (2013) that it is possible to generalize and draw conclusions with relevance for a wider context from qualitative research on small samples and even individual cases, such as our study. We also agree with Lincoln & Guba (1985) that the unique nature of qualitative research necessitates evaluation criteria tailored specifically for it. Therefore, we utilize the alternative criteria for evaluation of qualitative studies suggested by Lincoln & Guba (1985) and Guba & Lincoln (1994) which are presented by Bryman & Bell (2015). Guba & Lincoln suggest trustworthiness and authenticity as primary criteria for evaluation of qualitative theses.

Trustworthiness can be divided into four sub criteria: credibility, transferability, dependability, and confirmability (Bryman & Bell, 2015).

Concerning credibility, we followed up our first interview series with a revision of our interview questions to confirm our initial findings, and to ensure that we had not misunderstood the topics discussed and the observations made. At this point, we also made efforts to fact-check using our observations and secondary data. For example, we reviewed company-internal PowerPoint-slides describing the various chronological steps in the history of the department to ensure that we had understood correctly what interviewees had described. This example showcases our use of triangulation as described by Bryman & Bell (2015), which we employed to increase the credibility of our qualitative research.

When it comes to transferability, we seek to abide by the qualitative research tradition as described by Bryman & Bell (2015) and Lincoln & Guba (1985). Thus, we focus on depth in the context of our case study and let the reader analyze whether our conclusions are relevant to transfer to other environments. We agree with Gioia et al. (2013) that many concepts are similar and can be transferred across domains. Thus, an individual case, generating grounded theory

(that is, grounded theory as described by Gioia et al. (2013)), may lead to many concepts that are interesting to examine further in other contexts.

Additionally, in order to stress the dependability of our study we will make our transcriptions, recordings, notes, analysis documents, and any other relevant material available to the individuals involved in the review of our thesis, including our thesis supervisor and thesis course directors.

On the topic of confirmability, we have also consciously tried to keep personal values or theoretical inclinations as separated from our research as possible in order to keep our data collection and conclusions free from biases and to maintain good faith and high research standards. This involved taking a step back at times and not jumping to conclusions at various points in our research process. At first this was not always so simple, but we once again found the systematic approaches advocated by Gioia et al. (2013) to be very useful tools for us when trying to maintain credibility in our qualitative research.

Finally, we also believe our research achieves a high level of authenticity based on the criteria developed by Lincoln & Guba (1985). Our extensive series of interviews have given people from different levels of the department the opportunity to voice their opinions and concerns. It is our hope that our thesis will contribute to a better and more holistic understanding of the department, if only because of the aggregation and reproduction of the ideas and opinions of those who work in it. To improve authenticity, we have also agreed to distribute our thesis not only to those directly involved in the research process but also to the rest of the department and those otherwise interested. In summary, we believe that our actions will allow our research to paint a fair picture of the context and processes studied.

Our research also carries ontological authenticity as it allowed respondents to reflect on their social and professional situation during the interviews. By reading and discussing the conclusions of our thesis the interviewees, as well as other individuals from the company, can gain a deeper understanding of how other people in their environment have experienced things. This pedagogic authenticity might act as a motor for catalytic and tactical authenticity as the department continues to develop as an organization.

4.6.1 Reflexivity Discussion

As an end to our methodology section, we want to discuss two concerns that could raise questions of bias.

4.6.1.1 On Receiving Remuneration

During our initial contact with the company and the invitation to get access to the department for our case study, we did not expect to receive any kind of remuneration. We wanted to write our thesis with direct access to a practical context and this was the reason for us accepting the invitation. During our second visit with the company, we however signed thesis worker contracts with the company to regulate formalities, including access to the premises and insurance questions etc. The standard contract offered to all postgraduate thesis writers also included a remuneration. This means that we receive a total of 40,000 SEK each upon the acceptance and publishing of the thesis.

Recognizing that this could mean potential for a biased study, we made sure that our agreement was to write a thesis with complete freedom to choose the areas we wanted to investigate, and

that we would be allowed to maintain academic standards, before we signed the contracts. We were not employed in any other capacity than to write a thesis, and our thesis writing did not involve any specific requirements other than to provide the company with the finished thesis and to present it at a seminar.

4.6.1.2 On Translation and Semantics

Most of the verbal data we collected was originally in Swedish. A few individuals at the department we studied spoke mainly English at work and consequently two of our interviews were conducted in English. Generally, we believe this to be a lesser issue because we are both native speakers of Swedish and confident about our abilities in English. Additionally, all analysis of verbal data was performed, and all conclusions were derived, before any translation took place. However, as the presentation of our data and analysis is fully in English there might, despite our best efforts, be unintended semantic distortion or drifts that bias the outcome. This is important to note as our thesis very much concerns interpretations by individuals and the meaning they assign to phenomena.

5 Findings

An overview of our findings is first presented through a data structure that we subsequently elaborate on. Our findings are then related to each other, and the dynamic relationships between them are ultimately presented through an inductive model.

5.1 Data Structure

In table 2 and figure 3 below, we present our data structure. It summarizes the findings in this section, as well as the empirical foundations for our findings.

Table 2: Data structure

Interviewee	Interview	Quote	1st Order	
			Informant Terms	Concepts
Second group manager	1.5	I	Agile is a mindset	Many different interpretations of Agile
First d.o. employee	1.2	II	Agile is Scrum or Kanban	
Second section head	1.9	III	Agile is like lean, short decision chains and constant value creation	
First management trainee	1.3	IV	Agile is working with two week sprints	
Third section head	2.6	V	Agile is quickness	
Sixth group manager	2.12	VI	Agile is not lean. Agile is open for interpretation	
Sixth section head	2.11	VII	We all say we are agile, but very few understand what it means	
Second section head	1.9	VIII	Agile sounds very good, but is one of the most misunderstood terms	
Second section head	1.9	IX	Agile manifesto has an anarchistic vein	
Sixth group manager	2.12	X	Tribes are empowered and deliver independently from start to finish	Communication, interaction, and alignment issues
Fourth group manager	2.3	XI	The tribes work in different, unique ways	
Fourth group manager	2.3	XII	Independency of tribes means little attention to organizational dependencies	
Sixth group manager	2.12	XIII	Guilds are voluntary constellations copied from Spotify	
Sixth group manager	2.12	XIV	Initiatives with Guilds died, horizontal initiatives are not taking off	
First product owner	2.14	XV	Guilds died when the individuals who where the driving forces left	
Sixth group manager	2.12	XVI	No energy to attend all Guild meetings, developers wanted to develop	
Sixth section head	2.11	XVII	Meetings not always value creating, take time away from operational tasks	
Second product owner	2.5	XVIII	Briefing superiors takes valuable time away	
Sixth section head	2.11	XIX	Top-heavy organization	
Fourth section head	2.7	XX	Many new roles that lack mandate and responsibilities	
Second d.o. employee	2.13	XXI	Close and positive cooperation with the commercial side around product	
Second product owner	2.5	XXII	New product owner role communicates with commercial side daily	
Head of department	2.2	XXIII	Major advantage when technical and commercial live together	
First group manager	2.8	XXIV	Different views on how department and group manager should act	
First product owner	2.14	XXV	Managers as doormen that shield but also enforce vision	
Head of department	2.2	XXVI	Non-alignment spreads downwards, recognize overall vision of company	
Second section head	1.9	XXVII	Department has very autonomous groupings	
Fifth section head	2.9	XXVIII	The department consists of island tribes in a corporate company	
First product owner	2.14	XXIX	Autonomy must be balanced by common vision, right now we work in silos	
Fifth section head	2.9	XXX	Keep high autonomy but it needs to be complemented with high alignment	
Head of department	2.2	XXXI	Need better synchronization, company has limited resources	
Sixth section head	2.11	XXXII	Organizational change to agile methods and tribes was carried out at haste	Lack of detailed instruction and support regarding Agile
First section head	2.1	XXXIII	Have not received any good processes, have not established a way that works	
Second product owner	2.5	XXXIV	A lack of leadership created uncertainty in the lower ranks	
First group manager	2.8	XXXV	Not entirely in agreement over how tribes are to be managed	
Third d.o. employee	2.15	XXXVI	Nobody knows the direction, managers have no knowledge	
Third section head	2.6	XXXVII	One and a half year with basically no senior managers	
Fourth group manager	2.3	XXXVIII	Leadership vacuum, waiting for rest of senior management to be replaced	
Third section head	2.6	XXXIX	Tension in the senior management team, inactivity for two years	
Second group manager	2.16	XL	No course at organization concerning agile methods	
First management trainee	1.1	XLI	Learned about agile from colleagues and internet	
First d.o. employee	1.2	XLII	Learned about agile from competent product owner colleague and internet	
Second group manager	2.16	XLIII	Did not go well with agile coaches, senior management not engaged or ready	
First group manager	1.4	XLIV	Agile coaches let go because of cost concerns	

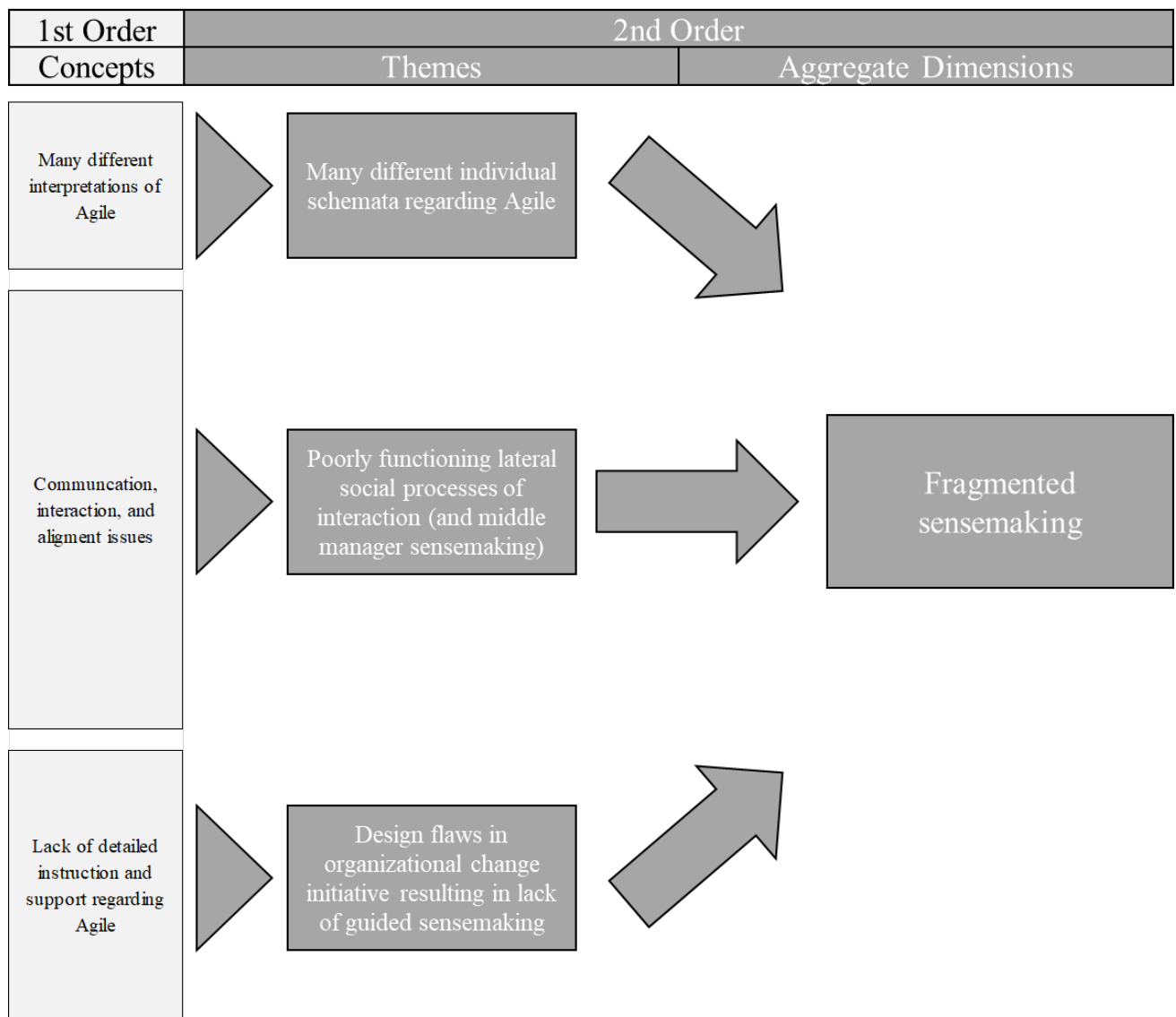


Figure 3: Data structure continued

5.1.1 The Many Different Interpretations of Agile

After several interviews, it became clear that the interviewees talked about and approached the topic of Agile in different ways. Agile was a point of discussion in our semi-structured interviews and almost every interviewee had something to say about Agile, and its use at the department.

5.1.1.1 First-order Analysis

To us, a clear theme emerged: across the department, individuals held many different interpretations and ideas of what Agile meant in their organizational context. There was of course some overlap in interpretations, but it was remarkable how the central meaning of Agile in an organizational context differed between individuals. One interviewee chose to view Agile primarily as a mindset, while others viewed Agile as more or less a synonym for methods like Scrum, or Kanban. Another focused on short decisions chains and constant value creation. Yet others emphasized that Agile teams organized work around two-week sprints. Finally, one

interviewee's interpretation of Agile in an organizational context more so emphasized a general notion of quickness and openness:

"I think it is hard to say that one should do it in an agile- it is more that one needs to have a mindset, and then in that reflect on if one, that one is actually on it, still within that mindset, or if you sort of detract from it. It is a little bit about that, because agile is foremost a mindset. What do I have in terms of, what governs and guides me, what is my guiding star? Then one can, it can express itself in different things." (Second group manager, quote I)

"I think that my first would-, my first opinion is that it varies quite a lot. Most try to follow some kind of agile structure. And then if that means that one does pure Scrum, that one does parts of Scrum, that one does, what is it called, that one that is not Scrum, but more ad-hoc, Kanban." (First employee, quote II)

"In my view lean and agile are very close together and it is all about having short decision chains, focusing on working in smaller bits, break things down, do things in smaller steps that create value and deliver value-creation all the time." (Second section head, quote III)

"So to work agile, to work in sprints, which means that one looks maybe two weeks ahead, what should we achieve during these two weeks." (First management trainee, quote IV)

"But [back] then nobody knew anything either. You sort of did different things and looked at what turned out well. Then you have to change it quickly for it to become good. One has to be very agile in the way one thinks. I have also led a few other projects, and the same thing applies now when I have managed [project], that was also very agile. It has become that. Then if you can put it strictly with by-the-book agile, no, we have not always done that, it has been some of the openness that agile has, the quickness to try something, and see if it works." (Third section head, quote V)

In fact, one interviewee directly acknowledged that Agile as an organizational phenomenon is very open to interpretation (while at the same time directly contradicting a previous interviewee interpreting Agile as very similar to Lean):

"And that one should remember, it is not a work method, it is not lean, for example. Lean is more of a work method, I would say. Agile, however, is a bundle of practices, or principles, as it is called. And then it is a question of interpretation, how one should interpret it, how they should fit these things. So that it... the four ones that are written here [interviewee referring to a framework in a document], individuals, interactions, and processes and tools, they are important, but it's a question of interpreting what the team, how they interpret it. It is not the processes that are important, but how the team works together." (Sixth group manager, quote VI)

Several interviewees believed the department had declared itself as 'being Agile' prematurely and acknowledged that the word 'Agile' was popular around the organization, but that few people, if any, really understood the meaning behind it:

"When we heard about agile, we saw it as another tool in the box and we understood that as, 'now we are agile'. We need to discuss what we mean when we refer to it and I would like to shake the organizations and say, 'now we do it this way'! I am an advocate for the tribes, but we need to improve and really tell the staff what we mean when we say agile. It doesn't matter where you go in the organization, everyone will tell you that they work agile, but there are very few, including myself, that understand what it means." (Sixth section head, quote VII)

"Agile is one of the most misunderstood and 'I decide myself what I put in it' terms, there are definitely several others, Lean is another. Lean and agile sound very good, no one wants to be square and unadaptable." (Second section head, quote VIII)

One interviewee believed that the underlying message of the “agile manifesto” impedes communication about how to do things, and promotes going at things alone:

“And in addition, there is a sort of anarchistic vein in the whole agile manifesto that lies a little bit under the surface. ‘Don’t come here and tell me how things should be done! Because I can do it myself!’” (Second section head, quote IX)

5.1.1.2 Second-order Analysis

This theme of varied individual interpretations of Agile, seen across the department, can be viewed as the existence of many differentiated individual schemata. Individuals hold schemata of what Agile is, and what it entails, that are dissimilar to those of their colleagues. Our data supports such fragmented sensemaking at an individual level across the department.

We cannot, however, decidedly say whether these discrepancies in individual schemata are less pronounced between individuals within a tribe, relative to discrepancies amongst individuals belonging to different tribes. Our data does not provide a high enough level of coverage of individual schemata within the department to do so (an example of sufficient coverage would be to compare the individual schemata of most members of one tribe, with the individual schemata of most members of another tribe). We can therefore not say whether subgroup organizational schemata concerning Agile exist on a tribe-level (i.e., an organizational schema across one tribe, or separate organizational schemata, one for each respective tribe). What we can argue, however, is that because individual schemata regarding Agile are so differentiated across the department, no shared organizational schemata regarding Agile exist on a department-wide level.

What is interesting is the extent of these individual discrepancies in a department that explicitly states it employs Agile, and whose individuals work side by side in the same building. To try to understand why, we connect the insights of the sixth group manager with previous research on Agile.

Illustrated in quote VI of the first-order analysis, the manager emphasizes that Agile, in its nature, is not a work method, but practices and principles open to interpretation. What Agile is, according to the manager, is a question of interpretation, and what matters in Agile, to the manager, is how it is interpreted by a team.

These conclusions echo the criticism of agile methods as summarized by Conboy & Fitzgerald (2004) as well as Dikert et al. (2016). They mention that practitioners and academics alike have criticized agile development methods for being vague and open to interpretation. We argue that this vagueness regarding agile development methods has made Agile as a phenomenon harder to implement in a large-scale setting (such as the organization in our study) as the vagueness contributes to the proliferation of differentiated individual schemata regarding Agile.

We will not make judgements as to whether employees at the department we studied understood Agile correctly, or state which interpretation of Agile is the correct one, if one exists. What we did see, is that the nature of the phenomenon at hand contributed to a proliferation of fragmented sensemaking. Agile, referred to as one single phenomenon by the interviewees, and apparently adopted by the department, was thought of very differently depending on which interviewee we asked. Our findings indicate that the nature of an organizational phenomenon can come to greatly affect the way schemata develop amongst organizational participants.

5.1.2 Communication, Interaction, and Alignment Issues

A subject which most interviewees spoke about, and had strong opinions regarding, was how the intra-organizational communication and interaction had been affected by the organizational change.

5.1.2.1 First-order Analysis

One major topic of these discussions was the various issues identified in the interaction between the tribes. The tribes were seen as empowered cross-functional groups that could deliver from start to finish:

“[...] [Tribes are] a group where the commercial and technical/development sides are combined. An independent unit that can deliver from beginning to end.” (Sixth group manager, quote X)

At the time of our study, most tribes were perceived to have achieved autonomy to make decisions independently from the others. There were numerous ways of working, and this was interpreted as something that had hampered the cooperation at the department. One such problem was the active use of different programming languages:

“As an example, we today stand in the tribes and even within the tribes we have incredibly sprawling technical choices. We have lots of different programming languages even though I think that most tribes have the same technical needs. They have chosen to find unique solutions for each tribe. The outcomes of the programming are similar, but it isn’t scalable, since everyone is an artist that does it in their own way. At this department each tribe has a unique solution that differs a lot and this means major problems when it comes to recruitment in the future. I think we need to have less autonomy in some basics respects, like the choice of programming languages.” (Fourth group manager, quote XI)

Communication and coordination were also negatively influenced in additional ways by the independence of the tribes. Independency had given rise to a mindset where little attention was given to intra-organizational dependencies, i.e., horizontal coordination:

“[...] in contrast, we have lost the things that kind of go across the organization, so the team I am responsible for, they have continued to be incredibly isolated, they do things their own way and meanwhile there are many things we need to do in order to come closer to the rest of the department and the rest of the company. There is no point to sit in isolation, we need to learn from each other and there are many things we could reuse. Today we have our own way of sending out invoices using Excel, even though there are better systems in place elsewhere at the department. It is incredible that we haven’t cooperated with the people that are only two floors below us! We have become incredibly good at managing our downspout, but we don’t take responsibility for things that we have in common and that spans over several tribes.” (Fourth group manager, quote XII)

To increase the cooperation between members of different tribes, the employees tried to adopt a system of so called “Guilds” to create horizontal interactions between the tribes:

“Guilds are something we have copied from Spotify. Guilds are voluntary, you can call them constellations, where members from different parts of the organization can meet if they are enthusiastic about a certain subject. In the guilds you can share experiences, have representation from all different corners and sides.” (Sixth group manager, quote XIII)

Many guilds were initially formed, but these attempts were then discontinued after some time due to a lack of engagement:

“From the beginning we had overly high expectations on the guilds. There were about 30 guilds and they died after a while since no one cared about them anymore.” (Sixth group manager, quote XIV)

“I would say that often the person that started the guild was the driving force, and once the person left, the guild died, it was disbanded.” (First product owner, quote XV)

“No one had the energy to attend all the guild meetings. Especially the developers wanted to focus on development and not sit in so many meetings.” (Sixth group manager, quote XVI)

Another point of discussion was the vast number of intra-organizational meetings that had become part of the daily routine of most employees. Most meetings took place to facilitate some degree of coordination, but there was the sentiment that they took up much time and did not achieve enough:

“These meetings are not always value-creating, instead they are about positioning yourself and showing where you stand. People need to attend these meetings sooner or later in one way or another, but it is a waste of time for business managers and product owners who fill their time with operational activities.” (Sixth section head, quote XVII)

One interpretation was that this had to do with the manager-heavy micromanagement traditions of the company:

“I would appreciate less meetings where we recount our activities to our superiors, I believe I could manage better without them. There must be other ways, instead of me pushing information to them, by going to a meeting and reporting. I think there are other ways for them to get access to that information. We have many meetings, meetings for personal reporting, group reporting, tribe reporting and monthly reporting, there is a lot. These kinds of briefings upwards I could manage without and I believe everyone could benefit from it and have time to do other things.” (Second product owner, quote XVIII)

“The rest of the company is not organized like us, it is quite top-heavy, there are a lot of managers. But the result is that some of these traditional structures, with many managers, we must have here as well, and this means a lot of meetings.” (Sixth section head, quote XIX)

An alternative interpretation was offered in that the cross-functional integration had created a lot of managerial roles that overlapped and had little mandate to make decisions on their own:

“It is rather that the stressed individuals which attend the meetings need a greater area of responsibility. Because then you can take away some of the problems with dependencies that make it necessary to have briefings all the time. Previously we had broader roles, we had one product manager for the whole department and now we have one product owner together with the business manager in four different tribes. We have created many new roles and I think we need to take a step back and clarify the responsibilities and give them the mandate to make their own decisions. Then you do not need so many forums and meetings.” (Fourth section head, quote XX)

Despite the issues, there was a general feeling that the integration of technical (development and operational roles) and business staff within the tribes themselves was a successful concept in most cases. Around 2017, parts of the Research & Development department had been merged with their respective commercial sides working with the same products. It was then realized

that this more cross-functional setup (compared to the rest of the organization) would have the greatest impact as its own department. It had been one of the major changes from the previous setup where the Research & Development and Commercial parts of the parent organization had been structurally and physically separated. This department then subsequently reformed its structure into the four cross-functional units, the “tribes”, drawing on inspiration from Spotify. The strengthening of the connection between technical and business parts of organization was perceived positively:

“In our tribe this has worked very well. We work very close to those responsible for the commercial side of our product. They are involved, they are always available and attend all meetings together with us and we have a lot of strategy discussions together.” (Second development/operations employee, quote XXI)

“My role as product owner has been broadened in a positive sense. Now communication with the commercial side is part of my daily routine. Coming closer to the commercial side, that was the big change. Now we have a business manager in each tribe in symbiosis with a product owner.” (Second product owner, quote XXII)

“This setup where the technical and commercial side live together is really a major advantage for us. Despite the issues in other areas, we have realized that it is important to have technical and commercial close together.” (Head of department, quote XXIII)

Some members of the department had given the advantages and issues with the tribe setup a great deal of thought and had analyzed the situation through a discussion about alignment of various forms. Some focused on their role as managers and stated that it was different from the same role at many other parts of the organization. They also talked about how there was a debate regarding how managers were to act out their roles in the tribe environment, and how the general direction of the department was to be shaped:

“My responsibilities are more unclear compared to someone with the same title, we have tried to alter them to fit better. The problem is that we haven’t had any alignment of expectations, we have approached the change with different views on what we want to do in the new organization. It has become evident in discussions, there is ambiguity in how the department operates, how a group manager should operate and how leaders in general should act.” (First group manager, quote XXIV)

“I think that the managers fill an important function as doormen that both shield the team and see to that the vision is followed.” (First product owner, quote XXV)

“Naturally not being completely aligned creates effects downwards in the organization. It is good to have different opinions but at some point, you must agree on in what way you want to steer the organization, achieve a consensus about which plan to follow. These are important internal parameters such as cooperation, openness, and alignment on different levels of the organization. We have operated too separate from the other parts of the organization. Our department is only one part in something greater, the company is a value stream that consists of the activities of its subunits and our activities have not always aligned with the vision of the company.” (Head of department, quote XXVI)

Another popular way to reason about the issues in the interaction and intersection between tribes, was using the alignment-autonomy model associated with Henrik Kniberg, an agile consultant, who visualized some of the thinking, structures, and processes of companies such as Spotify (Crisp, 2020). Those managers that mentioned the model interpreted the situation at the department as one of high autonomy and low alignment, a chaotic, entrepreneurial environment:

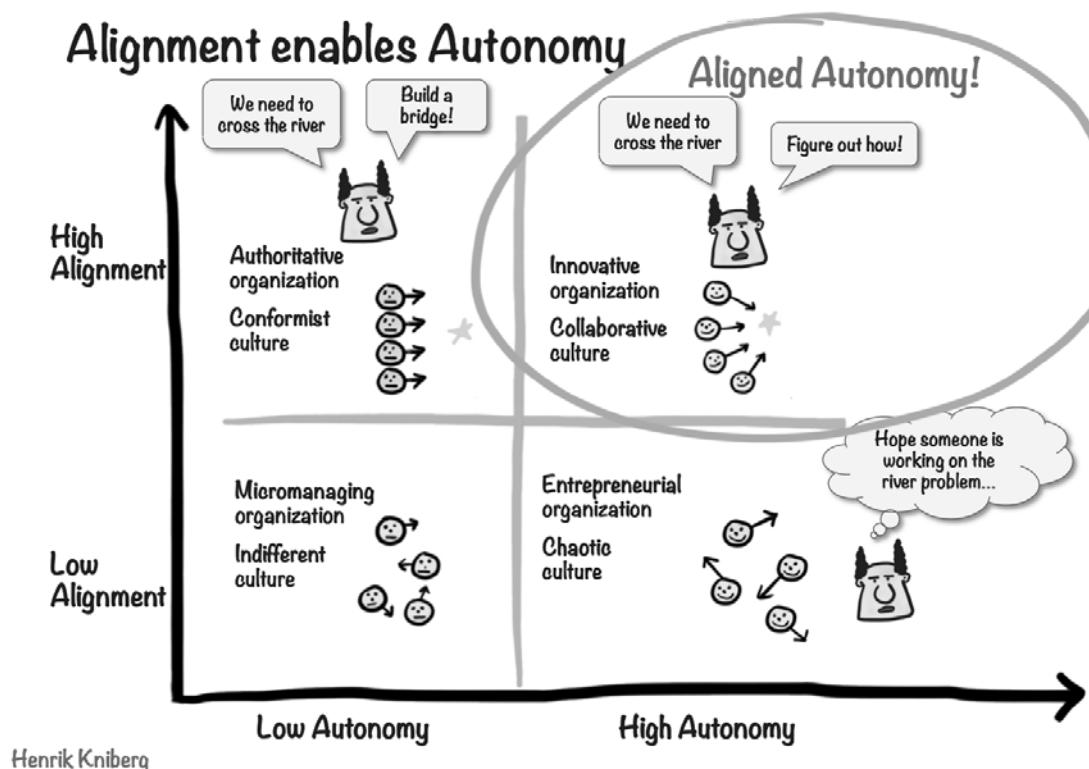


Figure 4: The model by Henrik Kniberg used in the discussion about alignment and autonomy

“The challenge right now, it is because the department has created an organization that has very autonomous groupings [...]” (Second section head, quote XXVII)

“If you have high autonomy but low alignment, then you are in an entrepreneurial organization with a chaotic culture and everyone is running in different directions. ‘I hope someone is working on the river problem’, I see some similarities to that mentality. Sadly, I think the department has landed in that situation. We are a collection of entrepreneurial teams in a corporate company. We have lacked clear guidelines and there are strong technical dependencies between the islands within the department. If we don’t have clear alignment, a clear guiding star, then there is chaos.” (Fifth section head, quote XXVIII)

“I think we can be quite autonomous as long as there is a clear direction and a clear vision around the product. If we have those frames, I believe we can be autonomous since every team knows what they should strive towards. Right now, the problem is that we haven’t got that, and we are still trying to be autonomous, then we work in silos instead and in different directions. We have a nice quadrangle model that addresses just that, one axis is self-organization, autonomy and the other is vision, alignment.” (First product owner, quote XXIX)

The managers were actively interpreting their situation using this model to seek a perceived balance between autonomy and alignment. The question here was how to keep the drive and power of the autonomous tribes and how to complement it with alignment, making clear what the department was striving towards:

“It is all about keeping the autonomy, the drive and power in the teams are not wrong but it needs to be complemented with strong alignment where it is much clearer what the department shall

prioritize. How can we build away dependencies that ruin autonomy? How can we run strongly towards the same goals?” (Fifth section head, quote XXX)

“Bottom-up ownership needs to go hand in hand with some form of top down, it may sound a bit harsh and old school in these contexts, but there needs to exist top structure that can create a holistic frame, both in terms of information and an understanding of the company strategy, which projects that actually fit into that frame. We can have great degrees of freedom within that frame, but we have had issues in this company where the same things are invented at different locations and much work is done twice. There must be synchronization. The agile, autonomous mindset only masks that we do not have endless resources, even in a big company such as ours. Historically this department has started a lot of projects that were believed to be good and innovative, but perhaps were not right given the mission the department had and the resources available. We need to have a balance. The structure with tribes makes it necessary to have more crosswise alignment, either that or we need to structurally change the organization.” (Head of department, quote XXXI)

5.1.2.2 Second-order Analysis

In the words of the managers themselves, tribes have become self-sustainable and autonomous “islands” that work well internally. They also mention that the horizontal interactions between the tribes have been lackluster, exemplified by the failure of the guilds, the perceived inefficiency and ineffectiveness of meetings, and metaphors such as “silos” and “downspouts”.

We argue that the horizontal interactions between tribes that the middle managers discuss, can be identified as what Balogun & Johnson (2005) refer to as lateral social processes of interaction. The fact that middle managers have trouble interacting and cooperating between tribes can further be understood as these lateral social processes of interaction functioning poorly.

One of Balogun & Johnson’s (2005) main messages is how sensemaking between middle managers occurs through these lateral social processes of interaction. Therefore, we argue that because the tribes result in poorly functioning lateral social processes of interaction, the sensemaking between middle managers of different tribes, in turn, functions poorly. Like Balogun & Johnson (2004), we can illustrate how the introduction of a modular organizational structure, the tribe structure, has created so called sensemaking fault lines, fragmenting one group into several new ones.

The numerous inefficient and ineffective meetings, and the discussion of ‘alignment-autonomy’ as a method to explain their predicaments, are further indications that the new tribes have been going through a process of having “to establish new patterns of interaction and coordination consistent with their new (individual) goals through negotiation with each other” (Balogun & Johnson, 2004, p. 538). With the new department head (a new senior manager) stepping in, this negotiation of interaction and coordination has now reached a point where increased top-level control and coordination is argued for.

5.1.3 Lack of Detailed Instruction and Support Regarding Agile

We also found that from the initiation of organizational change (i.e., the adoption of Agile and introduction of tribes), until the day we left the department, there was a continuous shortage of detailed instruction and support regarding how to employ Agile and make the tribe structure work.

5.1.3.1 First-order Analysis

The lack of detailed instruction and support manifested itself in four major observations. Firstly, there was limited support and a lack of detailed instruction on how to make the organizational changes (involving Agile, and tribes) stick, both initially and long-term:

“We carried out this change very much in a haste, and we were very very much in a hurry. And we did not either take the time to explain to our colleagues what value this organization was expected to deliver outwards.” (Sixth section head, quote XXXII)

“But in some instances, it becomes very burdensome for our teams, our individuals in [one tribe], that always have to struggle with these questions, instead of spending the time doing their jobs [...]. Because our supporting teams need to do what is most important. Some teams maybe feel that, to us, this is most important, or a tribe, then. But with [the department]-perspective, then it will probably have to happily wait. Because this support team must help the others first. And there we have not really received any good processes; we have not really established a good way, so that it... works.” (First section head, quote XXXIII)

Secondly, a big part of this lack of support was assigned to senior management. Throughout the change process, and in the years that followed, senior leadership showed limited knowledge and engagement regarding the organizational changes involving implementation of Agile and tribes. This was exacerbated by the fact that for long periods of time, there was no permanent team of senior managers in place:

“A lack of leadership pure and simple, it has been vague and there has not been anyone that has managed it, instead it has been floating, ‘this is how it could be’ etcetera. And the result of that is that the uncertainty has been high, especially in the lower ranks. [The organization] is still a hierarchical organization in many ways. We have our manager at the top, the head of the department, then we have our section managers and group managers. If it’s not super clear at the top, then it becomes very blurred at the bottom. That is what has been missing. To be able to visualize for everyone what it is that we are going to do.” (Second product owner, quote XXXIV)

“But then it has been a bit unclear what kind of product ownership one actually has, and what you are actually directing the team towards. A lot of it originates in this setup really, in tribes, that we have not been entirely in agreement over how they should be managed. Are they going to direct themselves, and the group manager is a servant leader at the sidelines that ensures that they have the resources? Or should the group manager manage what happens directly, and if that is the case, which one of the group managers, given that there are two managers in one tribe.” (First group manager, quote XXXV)

“When nobody knows where we are going, then it comes sort of, yeah, then you are standing there and threading water, and you become sort of angry. And the managers have, sort of, no knowledge.” (Third employee, quote XXXVI)

“Then we had a year and a half-ish with basically no senior managers. Well, we did have interim, temporary, managers. They do not take on particularly much, they keep their hands off, and that is probably why things have gone a bit awry for us.” (Third section head, quote XXXVII)

“After there has been some leadership vacuum, where the earlier head of the department left quite a long time ago, and after that we have largely been waiting for the rest of the senior management team to quit and to take in a new gang here. Therefore, there is a large pent up demand to take new action. Now we have arrived at the next step in some kind of development, evolution.” (Fourth group manager, quote XXXVIII)

“Obviously there was tension in the senior management team then as well, but not in the same way as it began to be towards the end. It was a little bit like everyone was pretty tired of most things at

that time. Then it poured out into nothing for two years, or one and a half years.” (Third section head, quote XXXIX)

Thirdly, it also became clear that there had been very limited department or organization-wide instruction or education regarding Agile or tribes. This was true both for middle managers and employees. Most had sought out information and knowledge on their own, and two of those we interviewed had had the privilege of attending ad-hoc educational events financed by the organization:

“I would probably say that it is very much up to the individual, and also who you work with, it will not directly be any... now I have to recall... I have done some course regarding... no I do not think so.” (Second group manager, quote XL)

“It probably exists, but I have mostly asked and looked around on the internet myself. And then heard from other colleagues that work in other parts, that say that they also work in an agile way.” (First management trainee, quote XLI)

“I would say that I first and foremost learned the manifesto that could be found on the internet via my school, and the founding principles, basically. I have also learned a lot from primarily an old product owner that we had, who was very competent. And a little over a year ago I got to attend a course. It was a [name of organization] course in the sense that it was [the organization] that paid for it and brought someone here, but it was an external course.” (First employee, quote XLII)

Finally, as the organizational changes were implemented, and for a period afterwards, the organization did hire a few external agile coaches to help individuals and groups in the department to work with Agile, but it did not work well, and they all had to leave the department after the initiation of the organizational change due to cost concerns:

“We had a, it has now been a year since he quit. So we have had an agile coach, yes, here. And it was, it did not go so well. Senior management needed to be a part of, it is not something that just the teams should work on, it needs to permeate the whole organization, and our senior management was not at all mature enough or ready for it, so it fell flat.” (Second group manager, quote XLIII)

“We have had agile coaches placed in the organization that have helped mostly the teams but also the leaders in this change process. [On why they had to leave] Yes, it was the cost. When we were forced to start cutting down, it was one of the first posts that you had to cut down on, yes, that was what happened. Quick, quick wins. Yes.” (First group manager, quote XLIV)

5.1.3.2 Second-order Analysis

Balogun & Johnson (2005) make similar empirical observations in their study of a UK firm implementing major organizational changes. They also observe a lack of detailed instruction and support from primarily the UK firm’s design team (a team consisting of consultants and senior managers) regarding how to implement the organizational changes. In their model (illustrated in figure 1), they define these shortcomings as design flaws that act as sensemaking triggers. The design flaws they mention that directly involve a lack of detailed instruction and support are: lack of inter-divisional transition management, no detailed design team output, no contract details early on, and inadequate communication.

We argue that their theoretical categorization applies to our observations. Balogun & Johnson (2005) observed inadequate detailed instruction and support from senior managers and consultants (the design team) at the UK firm they studied. We observe similarly inadequate detailed instruction and support from senior management and change initiators at the

department of our study. We also observe that these design flaws in the organizational change initiative we studied have triggered substantial amounts of sensemaking amongst our interviewees.

Further, we argue that the design flaws observed in our study (i.e., the lack of detailed instruction and support from senior managers and change initiators) constitute a lack of guided sensemaking as described by Maitlis (2005). That is, senior managers and change initiators in our study have not been actively constructing and promoting understandings and explanations of events.

5.2 Bringing it All Together

The latter part of the data structure shown in figure 3 presents the three major first order concepts and second order themes that we have now successively introduced. The three second order themes that we have identified with the help of theory presented by Balogun & Johnson (2004, 2005), combine into what we argue is best described as fragmented sensemaking. Maitlis (2005) defined fragmented sensemaking as occurring when stakeholders raise issues, generate accounts of a situation, and argue for potential solutions in the context of leaders who do not try to organize or control discussions. We have highlighted how our interviewees have engaged in sensemaking regarding Agile. We have also shown how senior managers and change initiators (at the department we studied) have continuously not been active in providing detailed instruction or support to subordinates regarding this organizational change ever since the introduction of Agile and tribes. This lack of detailed instruction and support (called design flaws by Balogun & Johnson (2005)) that contributed to the fragmented sensemaking, constitutes a lack of guided sensemaking (Maitlis, 2005).

Additionally, we argue that both the nature of Agile as a phenomenon, and the structural nature of tribes, contribute further to the fragmentation of sensemaking in the department. We show how interviewees both directly interpret Agile in different ways, and how they acknowledge its vague nature and the phenomenon's openness to individual interpretation. We also show interviewees' interpretations of the tribe structure, and how it creates numerous issues of communication, interaction, and alignment. We argue that this showcases how the tribe organizational structure makes lateral social processes of interaction function poorly. Processes that are important for organizational sensemaking (Balogun, 2004, 2005), especially in the absence of involvement from senior leaders.

5.2.1 Inductive Model of Fragmented Sensemaking

The dynamic process through which these three second-order themes combine to create fragmented sensemaking is further detailed in the model presented in figure 5.

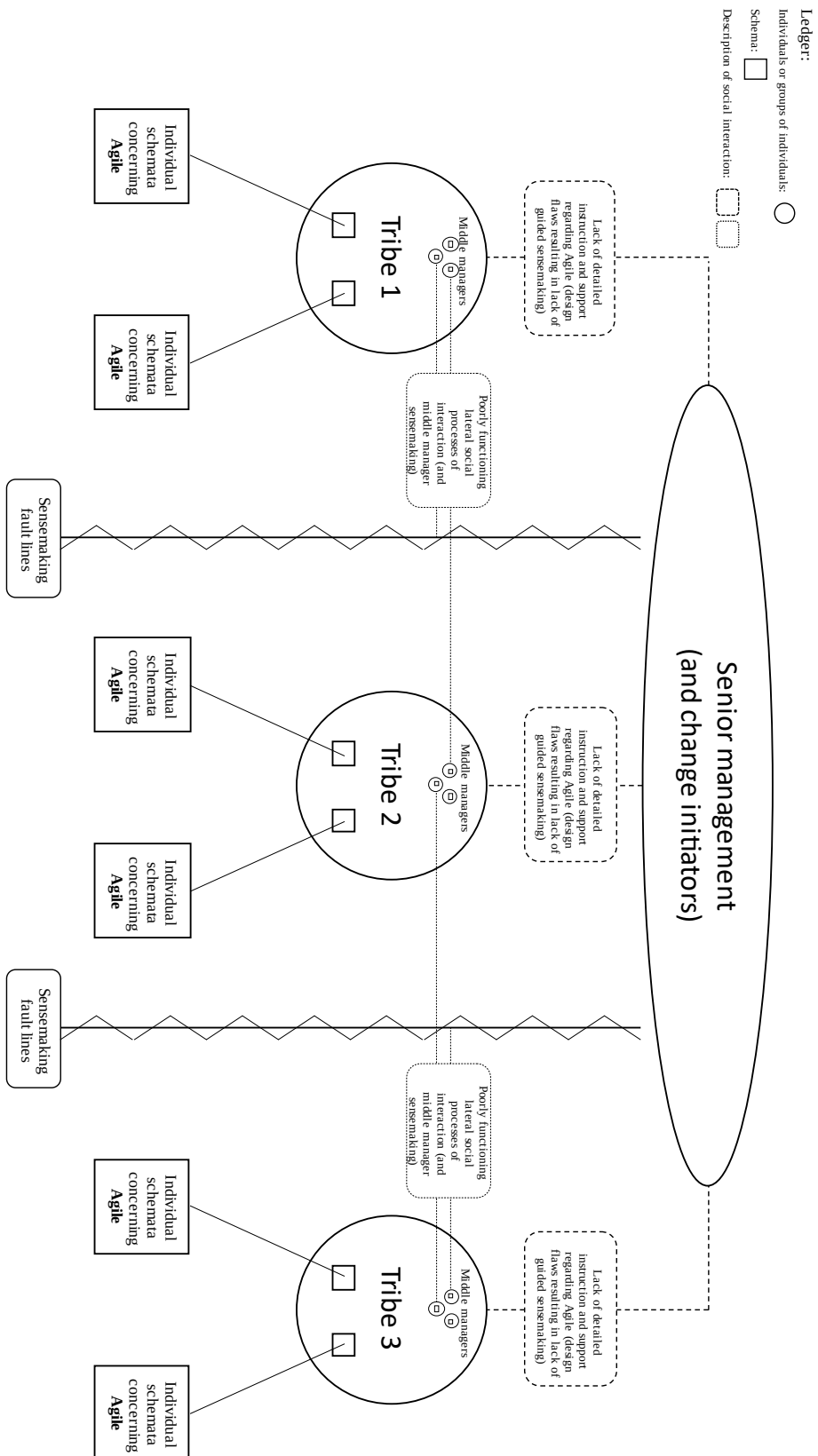


Figure 5: Inductive model

Agile as a phenomenon has, because of its natural vagueness and openness for interpretation, a high potential to manifest in people's minds as many differentiated individual schemata. A more guided sensemaking (Maitlis, 2005) regarding Agile could have emerged at the department if senior management and change initiators had given more detailed instruction or support regarding the change to, and continued employment of, Agile. In other words, if senior management and change initiators had more actively constructed and promoted understandings and explanations of Agile. However, our findings show there was lack of such engagement. In figure 5, this lack of guided sensemaking by senior management and change initiators is visualized by the dashed lines.

Additionally, at the department of our study, middle managers' lateral social processes of interaction were impaired by the tribe structure, which in turn resulted in sensemaking fault lines (as introduced by Balogun & Johnson (2004)) between the different tribes (illustrated in figure 5 by the zig-zagging barrier). The poorly functioning lateral social processes of interaction, and middle manager sensemaking, are illustrated by the dotted lines in figure 5.

6 Discussion

Our inductive research has led to several insights that expand on the findings of other researchers introduced in our theoretical review. This includes research on sensemaking in organizations, the role of middle managers in change, and Agile.

6.1 On Sensemaking

A major conclusion by Balogun & Johnson (2004) is how the increased organizational separation of the firm they studied into three separate divisions creates three discrete sensemaking processes, one in each newly formed organizational division, with sensemaking fault lines between them.

Balogun & Johnson (2005) also emphasize how a lack of detailed instruction and support from senior management and consultants (the design team) meant that it was up to the middle managers to make sense of the changes and make them work in their day-to-day organizational processes. Balogun & Johnson (2005) refer to these shortcomings from senior management and consultants as design flaws acting as sensemaking triggers for middle managers, while Maitlis (2005) refers to the resulting sensemaking situation as fragmented sensemaking. Our study showed a similar development where there was a lack of detailed instruction and support from senior managers and change initiators regarding the organizational change to tribes and Agile, leaving middle managers to try to make sense of the organizational change. Also, the observed result in our study was fragmented sensemaking regarding Agile. Our research therefore supports these findings by Balogun & Johnson (2004, 2005) and Maitlis (2005).

However, beyond this our research findings build on Balogun & Johnson's (2004, 2005) findings in important ways. In their studies (Balogun & Johnson, 2004, 2005), middle manager sensemaking performed through social processes of interaction compensates for the lack of guided sensemaking (Maitlis, 2005) from senior management and consultants (the design team). We, however, found ourselves in an organizational context where middle managers were struggling to perform their lateral social processes of interaction to achieve individual schemata that shared interpretations and meaning with each other regarding Agile in a substantial way. As we showed in the findings section, individual schemata on Agile as a phenomenon diverge

greatly at the department, signifying that no organizational schemata regarding Agile exists on a department-wide level. In other words, our research supports the importance of middle manager sensemaking through lateral social processes of interaction, but we show that this process can be hampered on a departmental organizational level, and its sensemaking effects impaired.

Our research therefore builds on the findings of Balogun & Johnson (2004, 2005), as we argue that the culprit for this impaired middle manager sensemaking process is the department's organizational structure of autonomous teams, "tribes". Our theoretical contribution then is to expand on Balogun & Johnson's (2004) conclusions that the formation of three separate organizational divisions create three discrete sensemaking processes through sensemaking fault lines. We expand on these findings by arguing that the formation of tribes in an organizational department will result in sensemaking fault lines between the tribes that further divides sensemaking processes in an organization. Most importantly, we argue that the tribes will impair middle manager sensemaking processes as their lateral social processes of interaction function poorly. While Balogun and Johnson (2004) saw sensemaking fault lines between organizational divisions, we saw the same development between smaller organizational units within a single department.

Our second theoretical contribution is highlighting how the nature of what is being introduced, how clear or vague that phenomenon is perceived to be, will also come to affect the extent of how differentiated the associated individual schemata will become. Consequently, we argue that the nature of what is being introduced will come to affect the proliferation of fragmented sensemaking. Agile, the phenomenon in our particular study, is vague and open for interpretation, both according to researchers we cite (Conboy & Fitzgerald, 2004)¹ and practitioners that we have interviewed. We argue that this vagueness contributes to the proliferation of differentiated individual schemata, and therefore fragmented sensemaking.

6.2 On the Role of Middle Managers

In the debate about middle managers as resisters or facilitators of change (change intermediaries), our study supports the position that they are facilitators and play important roles as interpreters and actors in sensemaking. The attempts of the managers we talked with to create an understanding of what the issues at their department were, substantiates the idea of middle managers as intermediaries between top and line. Our findings show that our discussions with middle managers constantly revolved around a wish to connect what was happening strategically and operationally, and to identify disparities between strategic focus and operational activities. Thus, our research supports the research findings of Balogun (2003), Balogun & Johnson (2004), Floyd & Wooldridge (1997), Huy (2001, 2002) and Lüscher & Lewis (2008).

6.3 On Agile

We can also see that there is support in our data to confirm many of the empirical conclusions from previous research on Agile that we mention in our literature review. Paasivaara et al. (2018) identify parameters for a successful agile transformation. Our study highlights that a

¹ Conboy & Fitzgerald (2004) refer specifically to agile methods both in software development and manufacturing.

lack of these parameters, most notably common direction and leadership, as well as a lack of centralized training in agile methods, is detrimental to an agile transformation. Dikert et al. (2016) also list similar success factors, one of which was the importance of managerial support. In our findings we clearly show that there was an absence of managerial support at the department we studied.

We also contribute to Conboy & Fitzgerald's (2004) discussion of agile methods as vague. We show in our findings that individuals from an organizational department focused on software systems development and operations assign differentiated meanings to Agile as an organizational phenomenon.

7 Conclusion

We conducted an inductive study of the sensemaking processes of middle managers at a software development and operations department of a large established industrial organization in Sweden. The subsequent systematic analysis of 27 in-depth interviewees with mostly middle managers of various hierarchical seniority in the department yielded four major insights. These insights allow us to answer our research question. They also bring with them implications for both practice and future research.

7.1 Major Insights

Our study shows that there were many disparate interpretations of the meaning of Agile amongst the interviewees. They held differentiated individual schemata concerning Agile. The multitude of individual schemata regarding Agile shows that the sensemaking concerning Agile was fragmented amongst interviewees.

Previous studies by Balogun & Johnson (2004, 2005) show how a lack of detailed instruction and support by senior managers and consultants led to middle manager sensemaking through lateral social processes of interaction. Additionally, the resulting situation in Balogun & Johnson's (2004, 2005) study can be described as fragmented sensemaking as presented by Maitlis (2005). We observe similar developments in our own study. We observe a lack of detailed instruction and support by senior managers and change initiators, which results in fragmented sensemaking. We also observe middle managers using lateral social processes of interaction to engage in middle manager sensemaking.

However, we assert that the structural configuration on a department level can have a substantial effect on the sensemaking process of middle managers. We observed that the structural organizational configuration of the department into tribes hampered the lateral social processes of interaction middle managers use in their sensemaking process.

Finally, we argue that the proliferation of fragmented sensemaking regarding an organizational phenomenon is affected by the nature of the phenomenon that individuals try to make sense of. In our study, the vague nature of Agile contributed to fragmented sensemaking amongst our interviewees.

7.2 Answering the Research Question

The above insights allow us to answer the research question that we presented in the introduction: How do middle managers make sense of Agile introduced in an organizational change initiative?

With a lack of guided sensemaking (Maitlis, 2005) from senior management and change initiators, middle managers try to make sense of Agile through lateral social processes of interaction (Balogun & Johnson, 2005). However, these processes function poorly because of the tribe organizational structure introduced at the department during the organizational change initiative. The poorly functioning lateral social processes of interaction result in sensemaking fault lines (Balogun & Johnson, 2004) between the tribes. This development, together with the vague nature of Agile as a phenomenon, means that middle manager sensemaking becomes fragmented.

7.3 Implications for Practice

Some of the success factors identified as important in previous studies of agile transformations (Dikert et al., 2016; Paasivaara et al., 2018) are confirmed in our study. The moldability and flexibility at the core of Agile that has allowed its rapid spread, may have to be toned down and translated into standardized guidelines before implementing it in organizations. Given that Agile as a phenomenon can be perceived as vague, it is paramount that an attempt at agile transformation must be accompanied by detailed instruction and support from senior management and change initiators. For practitioners considering scaling agile methods to fit into large organizational settings, this implies paying very close attention to the overall message communicated to the employees during the change. It also implies that practitioners should ensure that the message is clear and consistent, and that there is managerial support throughout the whole process.

Finally, it can be problematic to copy organizational structures from other organizations without making significant adaptations, as the issues with the tribes illustrate. Before any changes to structure are made, it may be wise to consider the effects on communication, interaction, and alignment within the organization. We find it advisable to put measures in place to maintain horizontal interactions between different “islands” in an organization.

7.4 Implications for Future Research

As an inductive and explorative research effort, our study opens up several avenues for further research. Like Balogun (2003, 2006) and Balogun & Johnson (2004, 2005) before us, we encourage more researchers to explore sensemaking in other organizational change contexts, especially the sensemaking of middle managers.

One avenue for further research is to explore individual schemata more systematically within, and across, different organizational subgroups (such as tribes). Our study never interviewed everyone, or close to everyone, within one or two tribes. If we would have done so, it would have allowed us to decidedly make conclusions regarding the existence of tribe-level subgroup organizational schemata. Instead, the opportunity now exists for others to do this in a new study.

Another possible research avenue is to further explore two of the factors we have highlighted in our research, factors that come to affect the proliferation of fragmented sensemaking. The first factor is the nature of the phenomenon that organizational participants try to make sense

of. In this study we chose to look at Agile, as our research data showed a plethora of different interpretations of the phenomenon. Subsequent research could look at other organizational phenomena, considered both vague and precise, and see how the nature of those phenomena affect sensemaking. The second factor is the organizational structural configuration of tribes that in our study comes to affect the sensemaking process of middle managers. Tribes in other empirical contexts could be analyzed using sensemaking theory. Also, the dynamic relationship between these two factors presented in this thesis, how they come to affect each other, could potentially be researched more in-depth.

Finally, we do not doubt that there are other unexplored factors that have a major effect on organizational sensemaking. To identify other factors could help to further our understanding of sensemaking in organizations, and give stakeholders additional dimensions through which to exert influence over the sensemaking processes, interpretations, and understandings that develop within organizations.

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9 Appendices

9.1 Tables

Table 1: Interviews overview

First Interview Series	Recording Media	Position	Interview Length
1.1	Audio recordings	First management trainee	45 minutes
1.2		First development/operations employee	43 minutes
1.3		First product owner	64 minutes
1.4		First group manager	60 minutes
1.5		Second group manager	53 minutes
1.6		First section head	51 minutes
1.7		First business manager	25 minutes
1.8		Second management trainee	38 minutes
1.9		Second section head	40 minutes
Second Interview Series	Recording Media	Position	Interview Length
2.1	Video recordings	Third group manager	57 minutes
2.2		Head of department	44 minutes
2.3		Fourth group manager	75 minutes
2.4		Fifth group manager	56 minutes
2.5		Second product owner	64 minutes
2.6		Third section head	49 minutes
2.7		Fourth section head	55 minutes
2.8		First group manager	78 minutes
2.9		Fifth section head	76 minutes
2.10		First section head	63 minutes
2.11		Sixth section head	61 minutes
2.12		Sixth group manager	55 minutes
2.13		Second development/operations employee	65 minutes
2.14		First product owner	55 minutes
2.15		Third development/operations employee	57 minutes
2.16		Second group manager	108 minutes
2.17		Third product owner	51 minutes
2.18		Second business manager	70 minutes

9.2 Interview Schedules

9.2.1 First Semi-structured Interview Series

- What is your role at [the department]?
- Which products or services do you work with?
- How long have you worked at [the organization]?
 - o At [the department]?
- What does a regular workday look like?
 - o What are the positive highlights during your workdays?
 - o What works really well?
 - o What are the challenges?

- o Which moments cause irritation?
 - o Is there something that does not work at all?
- What role do meetings have in your work?
 - o What is positive about meetings?
 - o What is negative about meetings?
- Do you work with Agile?
 - o How?
- How does [the department] work with Agile?
- How does your group work with Agile Leadership?
- Have you received any education about Agile?
- Do you have earlier experience of Agile as a part of work?
- What does Agile mean to you?
 - o What does Agile Leadership mean?
- Does Agile as a work method influence how meetings are carried out?
 - o Are there Agile meetings and non-agile meetings?
- What does [the department] do?
- How does [the department] look organizationally?
- Did you work at [the organization] when the change effort started?
 - o When it was taking place?
 - o When it was concluding?
- What was your role in the change effort?
 - o How involved were you?
- Who initiated the change effort?
- Who was the driving force?
- Who finished the change effort?
- Who is responsible today?

9.2.2 Second Semi-structured Interview Series

- What is your role at [the organization]?
 - o For how long have you had this particular role?
- For how long have you been working at [the organization]?
- What are your formal areas of responsibility?
- What is it that you actually spend your time doing?
- Who do you lead in your work?
 - o What type of leadership do you employ?
- Which individuals' leadership supports you?
 - o What type of leadership do the individuals leading you employ?
- What advice do you give in your work?
 - o What kind of advice?
- Who gives you advice in your work?

- o What kind of advice?
- What is your opinion regarding the Tribe-organization?
 - o Does it work well?
 - o Is there something that could be improved?
- Has your leadership changed since the introduction of the Tribe-organization?
- Have your areas of responsibility as a leader changed since the introduction of the Tribe-organization?
- Has the way your team operates changed since the introduction of the Tribe-organization?
 - o Has the way you work changed?
- What has (not) changed?
- Have you heard of any ideas, visions, or plans regarding adapting the leadership at [the department] to fit better with the reorganization into Tribes?
 - o Do you think that an adaption of leadership is necessary?
 - What kind of adaption would be appropriate?
 - o Has your team practiced collective, shared, autonomous (self-leading) leadership before or after the introduction of the Tribe-organization?
 - o Which negative or positive consequences would emerge if formal group managers were removed, so that work groups applied collective, shared, autonomous (self-leading) leadership?
- Would autonomous tribes that manage themselves work in an organization such as [the organization]?
- Do you think networks are important for your leadership?
 - o Do they help you?
 - How?
- Has the importance of communication changed since the reorganization into Tribes?
- Has the importance of your network changed since the reorganization into Tribes?
- Has your network changed now compared to how it looked before the reorganization into Tribes?
- Are there individuals who you have created particularly strong relationships with since the reorganization into Tribes?
- Have you lost any of the strong relationships that you had before the reorganization into Tribes?
- Do you interact more or less with other managers since the reorganization into Tribes?
- Has trust become more important in your workplace after the reorganization into Tribes, or was it more important before the reorganization?

9.2.3 Comments Regarding the Interview Schedules

While we felt it was important to present our interview schedules in the appendices for the sake of transparency, we would like to emphasize that these interview schedules may give a skewed impression of what discussions took place during our interview series.

Firstly, as mentioned in the main body of the thesis, we asked the questions above to open up a discussion. If an interviewee then decided to discuss a topic only remotely related to the

question asked, we encouraged it, and asked ad-hoc follow up questions to the interviewee's line of discussion. It was the norm for conversations to drift far off from the topics implied by the questions in our interview schedules. Therefore, our interviewees discussed many topics, leading to many insights, that the interview schedules described above do not necessarily cover directly. An important example is that of Agile. At the time of modifying our interview schedule for the second interview series, we chose to focus on middle managers and their thoughts about the organizational change at the department. However, we had not decided on what part of the organizational change to focus on, or which theory to employ in our analysis. In fact, we had not reviewed theory yet, as per our inductive approach guided by Gioia et al. (2013). Therefore, Agile was not explicitly mentioned in the second interview schedule. However, as the presentation of our data in the main body of the thesis shows, people chose to discuss it anyway, as it was one recurring topic of interest to the interviewees.

Secondly, in the second interview schedule we decided to include a few questions that we felt would further explore interesting topics mentioned by interviewees in the first interview series. An example was the questions regarding different types of leadership. Further investigation of these topics yielded some interesting results, but these topics did not form a significant part of the subsequent analysis in our thesis, at least not directly. In general, a large amount of interesting empirical material resulted from our interviews, most of which was not used in the final analysis. While an effort was made to present as much interview data as possible to ground our theory, only circa 1.5% of the circa 215,000 transcribed words from the interviews are presented directly in the thesis.

Finally, it is important to mention that when we were interviewing individuals who were not middle managers, we adapted the interview schedules accordingly. The individuals we did not view as middle managers include management trainees, development/operations employees, and the head of the department.