



SCHOOL OF
ECONOMICS AND
MANAGEMENT

Learning to unlearn

How individuals can BRACE themselves
for the impact of organizational change

To unlearn

verb [T]

UK /ʌnˈlɜːn/ US /ʌnˈlɜːn/

1: to intentionally forget your usual way of doing something so that you can learn a new and sometimes better way (Cambridge University Press, 2020)

2: discard something learned, especially a bad habit or outdated information, from one's memory (Lexico by Oxford, 2020)

by

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Master's Program in Managing People, Knowledge and Change

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Abstract

Title	Learning to unlearn - How individuals can BRACE themselves for the impact of organizational change
Authors	Myrthe van der Heijden & Veronika Wimmer
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Aim	This study aims to gain a deeper understanding of how individuals, in an organizational context, experience the process of unlearning in relation to routines and how these individuals might be influenced in their unlearning process.
Methodology	Applying an abductive approach, a qualitative case study was developed, drawing upon 10 semi-structured interviews conducted at Robert Bosch A/S. This approach allows us to find the most appropriate explanation for our phenomenon.
Theoretical Background	Our theoretical background provides the reader with a review of the existing literature on unlearning as well as closely related concepts, like organizational change and learning.
Contributions	This thesis contributes to the existing literature by solving the mystery around the concept of individual unlearning and providing practitioners with an acronym (BRACE) on how to prepare for this process. Hereby, we enhance the existing understanding of the individual unlearning process.
Keywords	(Individual) Unlearning, (Re)Learning, Change, Unlearning context

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Prologue

Imagine having to stop drinking coffee from one day to another ... For some people, this would be a nightmare. Their morning coffee has become a habit as part of their daily routine.

This is just one example of the fact that our lives are continuously determined by routines. People are creatures of habit because we feel safe in familiar and accustomed areas. We tend to stay on the same path instead of taking the risk of something new or unknown. Here, change always means a jump into the unknown, which causes uncertainty. Hence, giving up familiar routines and opening up to new ones portray a great challenge for the individual.

Both of us have encountered this in our previous work experience when being employed at mature organizations. Together with our colleagues, we were confronted with changes in our routine activities. In this context, we have experienced the need to adapt our work practices to new ways of working. However, we often noticed that the new routines were not accepted but that the familiar routine was kept in place. We also found it difficult sometimes to adapt to changes, especially if we were not active participants of the change process but rather seen as recipients of the change. This made us wonder: Why are we so trapped in our established routines? Why did we not reflect on these? And thus, how can we be truly ready to embrace change?

This experience has piqued our interest in exploring organizational challenges of unlearning old routines and moving to new ways of working. In this regard, especially the need to focus on the individual within an organization fascinated us.

1. Introduction

‘Change’ and ‘learning’ are vital topics in today’s strategic management context. Researchers agree on the immense importance of focusing on these highly interrelated aspects of management responsibility (Hislop, Bosua & Helms, 2018; Palmer, Dunford & Buchanan, 2017). The growing interest in organizational learning has derived from the discourse on the value of learning in today's globalized, knowledge-based economy (Hislop, Bosua & Helms, 2018). In this sense, a focus on learning helps organizations to increase individuals’ openness to change (Sveningsson & Sörgärde, 2018). Today, the organizational world is determined by changes, stressing the need to be ambidextrous, which means being both effective and innovative at the same time (Hislop, Bosua & Helms, 2018; Palmer, Dunford & Buchanan, 2017). Yet, despite the increasing occurrence of change, there are still significant elements of continuity in organizations. Hence, when considering this so-called ‘organizational ambidexterity’, it is especially interesting to look at mature organizations, as these heavily focus on knowledge accumulation, which shows their tendency towards continuity instead of change (Hislop, Bosua & Helms, 2018). In other words, mature organizations tend to primarily explore their existing knowledge rather than create new knowledge (Hislop, Bosua & Helms, 2018; Jones, 2006).

In general, mature organizations are constituted by organizational routines, which are deeply embedded in their activities (Tsang & Zahra, 2008; Wang, Qi & Zhao, 2019). In this thesis, we define organizational routines, in line with Wang, Qi and Zhao (2019), as “repetitive patterns of interdependent actions carried out by multiple organizational members involved in performing organizational tasks” (p.4). These routines are formed over time and are likely to create path dependency and inertia (Feldman & Pentland, 2003; Wang, Qi & Zhao, 2019). This can significantly threaten the existence of an organization. In this regard, mature organizations need to break their path dependencies to shift towards knowledge creation and renewal (Jones, 2006). In other words, an organization’s ability to discard old routines constitutes its flexibility to respond to environmental conditions (Hedberg, 1981; Wang, Qi & Zhao, 2019). This demonstrates that deeply embedded routines portray a significant challenge

for mature organizations in their ambition to remain ambidextrous. In order to increase an organization's 'absorptive capacity', which refers to their ability to assimilate new knowledge, mature organizations need to encourage processes to give up specific knowledge, values or behaviors, which are constituted in routines (De Holan & Phillips, 2004; Hislop et al., 2014; Jones & Craven, 2001; Macdonald, 2002). These intentional processes are called 'unlearning' (De Holan & Phillips, 2004; Macdonald, 2002).

Wang, Qi and Zhao (2019) emphasize that unlearning is a crucial factor for change and that organizations that provide a context for unlearning, therefore, enjoy greater flexibility. Hence, the ever-changing reality triggers mature organizations' need to foster processes to add new knowledge - learning - as well as to discard misleading knowledge - unlearning. Furthermore, unlearning can be seen as a precondition of learning and is thus of utmost importance for an organization to be able to change (Hislop et al., 2014). Yet, a limited amount of studies have investigated this topic so far, thereby creating confusion (Macdonald, 2002). This confusion is further strengthened due to the existing discrepancy in defining the concept of unlearning. On a general level, researchers define unlearning as 'intentionally discarding old routines' (De Holan & Phillips, 2004; Fiol & O'Connor, 2017a; Klammer & Gueldenberg, 2019; Rushmer & Davies, 2004; Tsang & Zahra, 2008). This definition is similar to the ones that can be found in dictionaries, referring to the verb 'to unlearn', as on our front page (Cambridge University Press, 2020; Lexico by Oxford, 2020). However, there is still confusion about the occurrence of the unlearning process, namely, if it occurs *consciously* or *unconsciously* (De Holan & Phillips, 2004; Edmondson & Moingeon, 1998; Fiol & O'Connor, 2017a; Klammer & Gueldenberg, 2019; Rushmer & Davies, 2004; Tsang & Zahra, 2008). This confusion increases the difficulty of establishing a common understanding of unlearning and thus stresses the importance of further research (Edmondson & Moingeon, 1998).

In the literature about unlearning, the concept is referred to as either *organizational* or *individual* unlearning (Hislop et al., 2014). Yet, most researchers do not explicitly distinguish between the labels but use them in an inconsistent manner. This further intensifies the confusion around the concept of unlearning. When considering the differences between the two labels, *organizational unlearning* relates to the key components of unlearning, providing a general understanding of what unlearning means and what it entails (De Holan & Phillips,

2004; Fiol & O'Connor, 2017a). Thus, in a simplified way, organizational unlearning can be equated with the general label 'unlearning' whereas *individual unlearning* draws on the individual basis of collective unlearning, namely the cognitive and psychological side (Akgün et al., 2007; Fiol & O'Connor, 2017a). In other words, on the one hand, organizational unlearning refers to the macro perspective about what unlearning is and why it is crucial for organizations. Individual unlearning, on the other hand, is concerned with the micro perspective on how the unlearning process unfolds.

When looking at routine-based unlearning, existing research has heavily focused on the *macro perspective* when imposing new routines and thus neglected the micro level of analysis (Fiol & O'Connor, 2017b; Hislop et al., 2014). However, a focus on individuals is essential as organizations can only unlearn through their employees' unlearning processes (Klammer & Gueldenberg, 2019). Tsang and Zahra (2008) support this need to shift the focus towards individuals, as organizational routines are constituted by individuals' habits, skills, and procedural knowledge, which in turn underlines the relevance of individual unlearning. Hence, to connect organizational and individual unlearning, it is essential to acknowledge that organizational unlearning is grounded on and originates from individual roots (Hislop et al., 2014; Salvato & Rerup, 2011). In other words, an organization consists of individuals, and understanding their perspective and motivation to unlearn is of utmost importance. This dependency is especially explicit when considering routine actions, as these routines are carried out by multiple individuals in a social setting, thus generating established behavior (Fiol & O'Connor, 2017a). Hence, individuals carrying out organizational routines combine the micro and macro perspectives of unlearning. So far, most researchers have focused on investigating the macro perspective on unlearning routines (Fiol & O'Connor, 2017a). Yet, several researchers emphasize the need to take the *micro perspective* into account when studying unlearning routines (Becker, 2010; Cegarra-Navarro, Eldridge & Martinez-Martinez, 2010; Klammer & Gueldenberg, 2019; Nguyen, 2017). Therefore, research on unlearning should focus on the individual level within the context of an organization (Klammer & Gueldenberg, 2019).

In general, the dominant view within literature seems to follow the myth that 'change is always needed' (Palmer, Dunford & Buchanan, 2017). In this respect, when individuals are

solely seen as recipients of a change and thus assumed to follow instructions, they are forced to give up their previous behavior and adapt to new routines (Wang, Qi & Zhao, 2019). The fact that a change initiative is not always based on a profound argumentation further intensifies this generally challenging task for individuals (Fiol & O'Connor, 2017b). This, in turn, could have a substantial impact on the individual's experiences in their unlearning process. Hence, taking the micro perspective into account and understanding individuals is of crucial importance. This has been demonstrated by the learning literature, which underlines the relevance of understanding the willingness of individuals to change (Hislop, Bosua & Helms, 2018).

However, until this date, research is still limited regarding the actual process of individual unlearning concerning routines (Fiol & O'Connor, 2017b; Hislop et al., 2014). One of the few well-cited studies regarding individual unlearning processes has been performed by Rushmer and Davies (2004). In their research, the notion of unlearning as a process of 'wiping' can be related to an intentional change. Nonetheless, their study did not explicitly consider the relation to routines as such, and what effect these might have on the individual unlearning process. Several years later, Fiol and O'Connor (2017a) developed a process model of how to unlearn established routines based on evidence from psychology and cognitive science. This process involves questioning old routines, discarding these routines, and learning new ones (Fiol & O'Connor, 2017a). Nonetheless, their research, together with most existing studies about individual unlearning, portrays several limitations (Hislop et al., 2014). First, these studies have relied on a theoretical analysis or empirical material based on personal experience (Macdonald, 2002; Rushmer & Davies, 2004). Second, the generalizability of these studies may be limited as they were performed in similar contexts, either in Asia or healthcare settings (Hislop et al., 2014). Third, these studies did not consider possible influences on the individual unlearning process and what effect this might have on the individual's experience (Fiol & O'Connor, 2017b). In this sense, the literature clearly shows a conceptual and empirical gap in deeper exploring individual unlearning processes concerning organizational routines (Fiol & O'Connor, 2017b; Hislop et al., 2014).

Hence, we can conclude that to understand individual unlearning, empirical research is necessary, especially concerning individuals' experiences. Additionally, according to Fiol and

O'Connor's (2017b) research on unlearning organizational routines, empirical research is needed to uncover what influences individuals in this process. Thus, these two aspects open up a highly interesting research field. In this regard, our study aims to gain a deeper understanding of the phenomenon of individual unlearning. In particular, we want to understand how individuals in an organizational setting *experience* unlearning organizational routines and what *influences* these individuals in their unlearning process. To this end, our study builds on the existing unlearning literature to present a brief two-dimensional discussion. Firstly, we will explore how individuals experience unlearning organizational routines in a mature organization. Secondly, we will dive deeper and investigate what might influence these individuals in their unlearning process. In this regard, our study will be of particular interest for mature organizations and for researchers who are interested in the field of unlearning, in relation to both organizational change and learning.

With regard to the aim of our study, we will be guided by the following research questions to fill this research gap:

- How do individuals experience the process of unlearning in relation to organizational routines?
- What influences individuals in their unlearning process in relation to organizational routines?

Within our study, we will explore our phenomenon of individual unlearning by using empirical data from a single case study. We chose to conduct our qualitative fieldwork at Robert Bosch A/S in Ballerup, Denmark. This organization can be considered as mature due to its over 100-year long history. Thus, we assume that there are many routines in place, which are potentially deeply embedded in the company's activities. Moreover, Robert Bosch A/S heavily promotes change and innovation, implying that they remain flexible and open to unlearning (We Are Bosch, 2020). Hence, the organization represents a highly interesting site to explore individual unlearning of organizational routines and how this could be a challenge for a mature organization.

1.1 Outline of the Thesis

This thesis consists of five chapters: Introduction, Literature Review, Methodology, Analysis & Discussion, and Conclusion. In **Chapter 1**, we have outlined our problematization, our research goal, and our research questions for the reader to receive profound background information regarding our topic. In **Chapter 2**, we will provide the reader with the theoretical background of our study. First, we will examine the concept of ‘unlearning’ in comparison to organizational ‘change’ and ‘learning’ to understand the similarities and differences between these closely related concepts. Then we will dive deeper into the concept of unlearning to understand what this means and how the process unfolds for the individual. Finally, we will explicitly address individual unlearning and how individuals can be supported in this process. We will conclude chapter 2 with a summary, highlighting the conceptual and empirical gap that raises questions for our empirical study. **Chapter 3** will outline our methodological approach to our research to understand the foundation of our thesis. Additionally, we will describe our research design and process in this chapter. Finally, we will address the limitations of our approach and reflect upon our research quality. **Chapter 4** entails the analysis of our empirical data intertwined with the discussion. In this chapter, we present our findings, analyze and interpret our data, and link it to the existing literature on unlearning. In the end, in **Chapter 5**, we will conclude our thesis by summarizing our main empirical findings and outline our theoretical contribution and practical implications. Here, we will also recommend interesting areas for future research.

2. Literature Review

Until the 1980s, knowledge management researchers, as well as practitioners, rarely discussed ‘unlearning’ as a topic (Hislop et al., 2014; Hislop, Bosua & Helms, 2018; Klammer & Gueldenberg, 2019). Since then, there has been a growing interest, as unlearning is claimed to be essential for organizations’ knowledge management change processes (Hislop, Bosua & Helms, 2018; Klammer & Gueldenberg, 2019; Tsang & Zahra, 2008). An organization’s inability to unlearn, which entails giving up or abandoning knowledge and routines, is one of the main reasons why organizations fail to deal with their environment and adapt accordingly (Hislop et al., 2014; Klammer, Grisold & Gueldenberg, 2019).

In this chapter, we will review the literature to develop a deeper understanding of the unlearning concept and its relation to other concepts, such as organizational change and (re)learning. This will, in return, form the basis for our empirical study.

2.1 Unlearning and change - cut from the same wood?

The predominant view within the existing unlearning literature acknowledges the close relationship between the concepts of *unlearning* and *change* (Akgün et al., 2007; Becker, 2010; Hislop et al., 2014; Klammer & Gueldenberg, 2019; Ngana, 2015; Rupčić, 2019; Tsang & Zahra, 2008; Wang, Qi & Zhao, 2019). Apart from its existence within cognitive science and psychology (Salvato & Rerup, 2011), in an organizational context, the relationship between the two concepts was introduced by change theorists (Macdonald, 2002). Furthermore, organizational learning theorists Sinkula, Baker and Noordewier (1997) see the concept of unlearning at the heart of organizational change.

From a macro perspective, the importance of organizational unlearning in relation to change refers to the so-called ‘competency traps’ (Hislop, 2013). Here, previously useful

competencies can become outdated if they have never been revised before (Hislop, 2013). This can result in routines becoming obsolete, forcing organizations to discard and unlearn them (Fiol & O'Connor, 2017a). Thus, it seems that unlearning can be defined as 'the reduction of routines'. However, these routines could have become deeply embedded in the organization and thus could likely create inertia (Klammer, Grisold & Gueldenberg, 2019; Swift & Hwang, 2008; Wang, Qi & Zhao, 2019). Hence, unlearning routines represents a critical challenge for organizations. This highlights the essence for organizations to critically reflect upon existing knowledge and practices to be able to change. This ability to respond to the changing environment effectively is referred to as an organization's 'strategic flexibility' (Hislop et al., 2014). In this sense, organizations need to dismantle inertia and rigidity. Consequently, the ability to unlearn routines can be seen as an indicator of an organization's capability to adequately react to the environment (Hislop et al., 2014).

Yet, the existing unlearning literature lacks a focus on the influence of unlearning on an organization's strategic flexibility (Hislop et al., 2014). Furthermore, even though most researchers agree on the strong connection between unlearning and change, the relationship between the two concepts itself has so far not been examined in detail (Hislop et al., 2014). Additionally, the few existing studies about their relationship differ as to how these concepts are connected (Akgün et al., 2007; Becker, 2010; Rushmer & Davies, 2004; Tsang & Zahra, 2008). For instance, researchers acknowledge that different types of change require various types of unlearning (Rushmer & Davies, 2004; Tsang & Zahra, 2008). Nonetheless, it is not possible to assign certain types of unlearning to specific types of change, as this strongly depends on the perspective and the particular situation of the change (Rushmer & Davies, 2004). This already shows the great difficulty of examining the relationship between unlearning and change in detail. Furthermore, opinions differ as to which concept follows the other. Whether it begins with *unlearning* and the changes occur as a consequence, or whether the *change* comes first and unlearning occurs as a result (Akgün et al., 2007; Becker, 2010; Hislop et al., 2014; Wang, Qi & Zhao, 2019). Hence, on the one hand, the trigger can be seen within *unlearning*, which then serves as facilitator of change (Akgün et al., 2007; Becker, 2010; Tsang & Zahra, 2008; Wang, Qi & Zhao, 2019). Here, essentially Becker (2010) argues that changes in organizational practices are often considered 'radical changes', where former practices, in this particular study an information system, need to be unlearned before being

able to change. On the other hand, Akgün et al. (2007) highlight that unlearning is part of the second step of Lewin's (1951) well-known change model, focusing on the process of 'unfreeze-change-refreeze'. These researchers agree that there is a *change* initiative first, which then triggers unlearning. Acknowledging both perspectives, Hislop et al. (2014) emphasize the bidirectional character of the relationship between change and unlearning. Hence, overall it can be stated that, while there are different opinions on the exact relationship between the two concepts, they are cut from the same wood. In other words, it is undisputed among the majority of researchers that the *ability to unlearn* is a necessary *prerequisite for change* (Akgün et al., 2007; Becker, 2010; Hislop et al., 2014; Rushmer & Davies, 2004; Tsang & Zahra, 2008; Wang, Qi & Zhao, 2019).

2.2 Unlearning versus (re)learning routines - what is their relation?

As the unlearning literature has emerged from research on organizational learning, we looked at the relation between unlearning and learning (De Holan & Phillips, 2004; Hislop et al., 2014; Klammer & Gueldenberg, 2019; Tsang & Zahra, 2008). Hedberg (1981) already stressed the importance of both learning and unlearning in organizations. Not only *learning* new practices but also *unlearning* established ones, are critical factors in the successful implementation of change and thus functional processes to maintain continuity and order (Hedberg, 1981; Hislop et al., 2014; Sharma & Lenka, 2019). Organizations need to be able to both create and refine routines to facilitate two forms of *learning*: the exploration of new knowledge as well as the exploitation of existing knowledge (Cegarra-Navarro, Eldridge & Wensley, 2014; Cepeda-Carrión et al., 2015; Sinkula, 2002; Zahra & George, 2002). Crossan, Lane and White (1999) refer to this process as 'strategic renewal'; exploring and learning new ways while at the same time exploiting what has already been learned. A critical challenge of renewal is this continuous balancing act between exploration and exploitation processes (Crossan, Lane & White, 1999; Waegeman et al., 2014). This can also be referred to as 'organizational ambidexterity' (Gibson & Birkinshaw, 2004; Hislop, Bosua & Helms, 2018). This balancing act is what constitutes behavioral flexibility, which, according to Waegeman et al. (2014), is a two-step process of *unlearning* routines and *relearning* new ones. In their view, the unlearning process precedes the relearning process, wherein relearning is referred to

as the adjustment of behavior based on new knowledge (Waegeman et al., 2014). Nonetheless, according to Cepeda-Carrión et al. (2015), organizations nowadays may be investing too heavily in exploration processes and too little in processes to foster unlearning of irrelevant knowledge. Their study revealed that organizations should, therefore, definitely consider unlearning as a preceding process of learning (Cepeda-Carrión et al., 2015). This finding is supported by Martins et al. (2017), who highlight that unlearning capacity in organizational learning models is crucial. However, according to Zahra, Abdelgawad and Tsang (2011), when organizations discard supposedly obsolete knowledge, unlearning processes could also handicap learning processes. Here, unlearning is obstructing organizational activities, resulting in learning processes to be delayed (Zahra, Abdelgawad & Tsang, 2011). In that sense, unlearning could also have negative consequences in relation to learning (Klammer & Gueldenberg, 2019). Hence, the process of *unlearning* truly remains a challenge for organizations but simultaneously demonstrates to be a vital process for organizations to *learn*.

Even though unlearning, relearning and learning are vital processes for organizations, until this date, there still seems to be no consensus regarding the relation of the three concepts (Hislop, Bosua & Helms, 2018; Klammer & Gueldenberg, 2019; Sharma & Lenka, 2019; Tsang & Zahra, 2008). The confusion around these concepts limits the potential value of this literature for practitioners (Edmondson & Moingeon, 1998). Overall, in line with Zahra, Abdelgawad and Tsang (2011), there are three dominant perspectives. Firstly, one view sees the acquisition of new routines as already constituted in the unlearning process, which makes relearning a redundant concept (Cegarra-Navarro, Wensley & Sánchez-Polo, 2010; Fiol & O'Connor, 2017a). Secondly, another perspective demonstrates that there does not always have to be a causal relationship between the three concepts (Sharma & Lenka, 2019). The unlearning process can also take place without being followed by other processes (Sharma & Lenka, 2019). In that regard, the relearning process does not have to be preceded by the unlearning process. When learning new and unrelated routines, prior unlearning is not required. Thirdly, the most dominant perspective refers to the widely held assumption that unlearning triggers the relearning process and paves the way for new learning (Akgün et al., 2007; Cegarra-Navarro, Sánchez-Vidal & Cegarra-Leiva, 2011; Wang, Qi & Zhao, 2019). This assumption, according to Tsang and Zahra's (2008) study on organizational unlearning,

dates back to 1984, when Nystrom and Starbuck were among the first scholars to introduce the term ‘unlearning’. Their theory already indicated that “unlearning can become a precursor for subsequent learning” (Tsang & Zahra, 2008, p.1448). In other words, unlearning should precede organizational learning. Thus, overall it can be stated that, when examining the relationship between unlearning and (re)learning, there truly is no consensus. Do these processes happen sequentially or simultaneously, or, in case of the relearning process, happen at all? In light of our study, we will follow the third, predominant perspective that *unlearning* prepares the ground for new *learning*.

2.3 (Un)learning routines - what does it mean?

In general, the lack of theoretical consensus in the *unlearning* literature makes the existence of a single definition impossible (Hislop, Bosua & Helms, 2018; Klammer & Gueldenberg, 2019). Since we know that the concept of unlearning has emerged from research on organizational *learning*, and is therefore closely related, it seems natural to start from the literature on learning (De Holan & Phillips, 2004; Hislop et al., 2014; Klammer & Gueldenberg, 2019; Tsang & Zahra, 2008). When referring to the learning literature, one of the most cited organizational learning frameworks was developed by Crossan, Lane and White (1999), consisting of four sub-processes: intuiting, interpreting, integrating and institutionalizing. Their theory seems to form the basis of the previously discussed understanding of exploration versus exploitation, in creating a tension between new learning and using what has already been learned (Cegarra-Navarro, Eldridge & Wensley, 2014; Cepeda-Carrión et al., 2015; Sinkula, 2002; Zahra & George, 2002). According to Crossan, Lane and White (1999), learning is a dynamic process that circulates on individual, group, and organizational levels. Starting on the individual level, the first sub-process is called ‘intuiting’, which involves a preconscious recognition of a pattern (Crossan, Lane & White, 1999). The second sub-process, ‘interpreting’, refers to the explanation of an idea or insight through language or actions. Moving on to the group level, ‘integrating’ is the third sub-process of learning, which consists of joint action and dialogue, to develop a shared understanding (Crossan, Lane & White, 1999). Once this process becomes recurring and significant, one can speak of ‘institutionalizing’, which is the fourth sub-process of learning

(Crossan, Lane & White, 1999). This process takes place on an organizational level, as it refers to the process of embedding learned behaviors from individuals into routines of the organization (Crossan, Lane & White, 1999). The repetition of these routines is facilitated by rules and procedures (Crossan, Lane & White, 1999). In line with this institutionalizing process, Levitt and March (1988) defined learning earlier as a routine-oriented approach of “encoding inferences from history into routines that guide behavior” (p.319). In other words, the institutionalization process ensures that routine actions, which are characterized by specified tasks and mechanisms, take place (Crossan, Lane & White, 1999; Levitt & March, 1988). Generally, *organizational routines* can be defined as “repetitive, recognizable patterns of interdependent actions, involving multiple actors” (Feldman & Pentland, 2003, p.95). Here, Feldman and Pentland (2003) found that forming organizational routines requires both *ostensive*, structured routines, and *performance* routines, related to individual actions. According to Akgün et al. (2007), organizational routines can also be referred to as organizational memory, where routines converge in declarative and procedural memory. *Declarative memory* refers to the ‘know-what’ in organizations, which can be used simultaneously by multiple actors. Contrary, *procedural memory* refers to ‘know-how’ and, thus, individual actions within the routine itself (Akgün et al., 2007).

When referring to the relationship between learning and unlearning, Fiol and O’Connor’s (2017a) process model of organizational unlearning highlights the similarity between Crossan, Lane and White’s (1999) evolution from individual to collective learning with the *unlearning* process of organizational routines. Here, Crossan, Lane and White (1999) emphasize that organizations should continuously “manage the tension between the embedded institutionalized learning from the past, which enables it to exploit learning, and the new learning that must be allowed to feed forward through the processes of intuiting, interpreting, and integrating” (p.530). Specifically, once the institutionalized learning no longer aligns with the environmental context, organizations must see the need to challenge and eventually discard their existing routines (Crossan, Lane & White, 1999; De Holan & Phillips, 2004; Tsang & Zahra, 2008). Nonetheless, this organizational unlearning process can be difficult for organizations and their employees, as these existing routines can be deeply embedded in the organizational culture (Hislop, Bosua & Helms, 2018). This embeddedness of routines can cause resistance to change and thus inhibit unlearning and learning processes (Fiol &

O'Connor, 2017a). According to a study performed by Wang, Qi and Zhao (2019), on a macro perspective, organizations must promote unlearning of both declarative and procedural memory to successfully discard existing routines. Here, De Holan and Phillips (2004) indicate 'organizational unlearning' to be an intentional process where people *consciously* have to choose to abandon or give up existing routines. Contrarily, when unlearning happens *unconsciously*, De Holan and Phillips (2004) call this process 'organizational forgetting', which can be either of new or existing knowledge. According to the systematic review of unlearning literature by Klammer and Gueldenberg (2019), the definition of unlearning as an *intentional* and *conscious* process is one of the most prevalent. For instance, Fiol and O'Connor (2017a) define unlearning organizational routines as "*intentional* displacement of well-established patterns of actions and understanding due to an exogenous disruption" (p.18). However, the overall inconsistency in researchers' attempt to define the concept of unlearning, still makes it hard to develop a shared understanding of the actual process individuals experience in practice (Edmondson & Moingeon, 1998). This again underlines the need for further empirical research.

2.4 Unlearning - how can we dive deeper?

In the existing unlearning literature, researchers often refer to either *organizational* or *individual* unlearning (Hislop et al., 2014). The inconsistent way in which researchers use these labels underlines once again the problematization of our study. In simple terms, on the one hand, *organizational unlearning* is the macro perspective of unlearning (De Holan & Phillips, 2004; Fiol & O'Connor, 2017a). This refers primarily to what unlearning means and why it is essential for organizations. *Individual unlearning*, on the other hand, refers to the micro perspective of unlearning and focuses on how the actual process of unlearning functions (Akgün et al., 2007; Fiol & O'Connor, 2017a). In this sense, Klammer and Gueldenberg (2019) stress that organizations unlearn through their employees. Organizations do not have mental activities which they can unlearn (Klammer & Gueldenberg, 2019). Hence, several scholars claim that organizations should shift the focus to individual unlearning, as this process precedes organizational unlearning (Becker, 2010; Cegarra-Navarro, Eldridge & Martinez-Martinez, 2010; Klammer & Gueldenberg, 2019;

Nguyen, 2017). In this sense, organizational unlearning is grounded on and originates from individual roots, underlining the relevance to take the micro perspective into account (Hislop et al., 2014; Salvato & Rerup, 2011). In other words, research on unlearning processes should take place on an individual level in the context of the organization (Klammer & Gueldenberg, 2019). Some researchers agree that individuals contribute to their unlearning process through their personal characteristics (Sinkula, 2002; Sukoco & Lee, 2017). These can either have a negative or positive effect on their unlearning process. As Sinkula (2002) states, “certain individuals are more willing to substitute new routines than are others” (p.264). Such individuals can also be referred to as ‘change agents’, people who are generally more focused and resolute, and particularly able to motivate others (Sinkula, 2002). In order to change people’s behavior, they have to unlearn mental models, dominant logic, and core assumptions that have grown obsolete (Bonchek, 2016; Sinkula, 2002). This is in line with Nicely and Ghazali’s (2017) study on behavioral change, in referring to the individual unlearning process as a ‘cognitive adjustment’ which encompasses “the foundation phase of any behavior modification process” (p.172). This process confirms Sinkula’s (2002) understanding of individual unlearning, which includes cognitive and behavioral elements. In other words, the individual unlearning process involves mentally discarding an old behavior to embrace a new one (Nicely & Ghazali, 2017). As a result, this will enable organizations to renew their knowledge base (Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012; Wensley & Navarro, 2015). Hence, in order to deeper understand unlearning and its actual process, researchers and managers should focus on the *individual* that goes through this process.

So far, one of the dominant studies on *individual unlearning* has been performed by Rushmer and Davies (2004). Their research presents three different types of individual unlearning: fading, wiping, and deep unlearning. When comparing these types to De Holan and Phillips’ (2004) typologies, ‘fading’ can be seen as an *unconscious* process and therefore seems more related to their concept of organizational forgetting (Rushmer & Davies, 2004). In contrast, ‘wiping’ involves a *conscious* process, where an individual is required to deliberately give up a particular way of working (Rushmer & Davies, 2004). This type of individual unlearning seems in line with De Holan and Phillips’ (2004) well-cited definition of organizational unlearning as consciously choosing to abandon or give up existing routines. As well as Fiol and O’Connor’s (2017a) definition for unlearning organizational routines as an “intentional

displacement [...]” (p.18). Furthermore, according to Tsang and Zahra (2008), wiping refers to work practices and individual routines that are discarded as a result of a change. This is in line with Rushmer and Davies’ (2004) understanding of wiping, where unlearning occurs after a deliberate change initiative, that has been imposed externally on the individual. Furthermore, ‘deep unlearning’ literally goes one level deeper, where individuals unlearn their core beliefs (Rushmer & Davies, 2004). Here, deep unlearning does not seem to refer to discarding outdated knowledge and routines directly. Therefore, we will follow the definition of wiping in our study, where we define individual unlearning as an *intentional* ending of specific routines that involves particular outdated knowledge (De Holan & Phillips, 2004; Klammer & Gueldenberg, 2019; Rushmer & Davies, 2004).

2.5 Individual unlearning - what do individuals need?

Until now, research on individual unlearning has provided a limited understanding of the actual process and how individuals experience and influence this process (Fiol & O’Connor, 2017a; Hislop et al., 2014; Macdonald, 2002; Rushmer & Davies, 2004). Nonetheless, from existing literature, we can draw conclusions on what individuals might need to unlearn. In times of change and unlearning, individuals require *motivational support* to cope with instability and uncertainty (Hislop, 2013; Palmer, Dunford & Buchanan, 2017). Even though some individuals are more open to unlearning previous practices than others, motivational support is generally needed to be willing to invest efforts in the challenging process of unlearning (Sinkula, Baker & Noordewier, 1997; Sinkula, 2002). In light of Schneider and Goldwasser’s (1998) ‘classic change curve’, individuals will experience an emotional journey when going through a change. Here, individuals will develop different feelings, where motivational support is particularly necessary. In this change curve, individuals start with high expectations of the change until they realize the involved efforts and complexity of the change project (Schneider & Goldwasser, 1998). The discrepancy between their high expectations at the beginning versus the reality pushes individuals in the so-called ‘valley of despair’, where individuals realize that the change could mean pain and loss to them (Palmer, Dunford & Buchanan, 2017; Schneider & Goldwasser, 1998). Here, individuals realize that the change also affects them and their routines and thus the need to unlearn their previous way of

working (Macdonald, 2002; Schneider & Goldwasser, 1998). Therefore, this phase, in particular, can be linked to unlearning. However, over time, individuals can usually see a 'light at the end of the tunnel' with a successful outcome of the change in the end (Schneider & Goldwasser, 1998). In general, this emotional journey impacts the performance of individuals. For example, in times of grief, when individuals experience a loss, their performance drops dramatically. This again underlines the difficulty of unlearning, as it is tied to the valley of despair, which is one of the most challenging phases for individuals within a change process (Macdonald, 2002; Palmer, Dunford & Buchanan, 2017). Rushmer and Davies (2004) support this notion, stating that individuals generally find unlearning difficult because of deeply embedded routines and unwillingness to step away from 'the known'. Therefore, continuous motivational support is essential during the entire change process to help individuals on their emotional path and thus flatten the curve as much as possible. Schneider and Goldwasser (1998) have also recognized that it is not possible to avoid negative feelings associated with the change completely. However, conveying a realistic image of the change process at the beginning, for example, will already help to reduce the depth of the valley of despair. This notion is supported by Macdonald (2002), who emphasizes that individuals need to be able to cope with their feelings before they can unlearn and change.

In that regard, it was found that *managers* need to provide this motivational support for individuals to encourage them in their unlearning activities (Klammer, Grisold & Gueldenberg, 2019). When looking at the change literature, Palmer, Dunford and Buchanan (2017) highlight that individuals' *engagement* is needed to ensure a successful change outcome. Here, explicitly the creation of a *common understanding* is essential (Palmer, Dunford & Buchanan, 2017). In this regard, Nicely and Ghazali (2017) stress that *commitment* is as crucial for unlearning as it is for change. In particular, awareness and the creation of a sense of urgency drives individual unlearning and thus change (Klammer, Grisold & Gueldenberg, 2019). Hence, in order for people to change their routines, they must first be convinced of the need for change (Nicely & Ghazali, 2017). Furthermore, individuals must understand that the change and their associated unlearning efforts will lead to *clear benefits* (Becker, 2010). Hence, in general, the individual cannot be solely seen as the 'recipient' of the change but must be considered as an active participant throughout the whole

process. This will increase their engagement and thus their openness to unlearn their routines. Furthermore, Matsuo (2017) sees managers' influence on the individuals' unlearning process not only in providing them with motivational support. Matsuo's (2017) study also demonstrates that managers' learning activities directly influence individuals in their learning orientation and thus positively impact their unlearning process.

Overall, organizations that do not focus on providing motivational support to individuals run the risk of individual resistance (Palmer, Dunford & Buchanan, 2017). With a weak or no sense of urgency, individuals will not diminish their old way of working (Nicely & Ghazali, 2017). According to Nguyen (2017), individuals need to be genuinely willing to discard their existing routines that have become obsolete. Without this stimulus, individuals might resist unlearning because of their well established mental models and mindsets (Klammer & Gueldenberg, 2019; Rushmer & Davies, 2004). Becker (2010) agrees with this perspective and stresses that people with negative feelings and expectations are more tempted to continue their old behavior. These people find it challenging to identify past practices as outdated. In this sense, it is crucial to avoid individual resistance by promoting a realistic image of the initiated change (Schneider & Goldwasser, 1998). Here, again the *clear benefits*, but also the potential *obstacles*, should be emphasized to create a *common understanding* and to be able to maintain this understanding throughout the process.

2.6 Individual unlearning - how can this support be facilitated?

Overall, scholars agree that supporting individuals in their unlearning activities requires the right organizational *culture* (Hislop, Bosua & Helms, 2018; Nicely & Ghazali, 2017; Sinkula, Baker & Noordewier, 1997). According to Fiol and O'Connor's (2017a) study on unlearning organizational routines, individuals are part of the social context in which they generate firm behaviors. Hence, when studying unlearning organizational routines, researchers should bridge both individual (micro) and organizational (macro) levels of analysis (Fiol & O'Connor, 2017a). In other words, individual unlearning should be studied within the context of an organization (Klammer & Gueldenberg, 2019).

When focusing again on the *organizational learning* literature, researchers highlight that learning can be promoted through a ‘learning culture’, where learning, reflection, debate, and discussion are encouraged and embedded in day-to-day work practices (Edmondson & Moingeon, 1998; Hislop, Bosua & Helms, 2018). In relation to *organizational unlearning*, this learning culture creates the social frame for change and thus becomes a significant driver of unlearning activities (Nicely & Ghazali, 2017). Within this learning culture, values supporting individuals in their unlearning process need to be present (Sinkula, Baker & Noordewier, 1997). Here, *open-mindedness* was particularly found to be an essential value as it indicates whether individuals can change their so-called ‘mental models’ (Rushmer & Davies, 2004). According to Sinkula, Baker and Noordewier (1997), as time passes, these mental models may no longer suffice, and therefore people need to be open-minded to start questioning them. As a result, this value will help individuals to pay closer attention to possible mistakes and wrong assumptions, paving the way for new knowledge (Azmi, 2008). This is in line with Senge’s (1990) view on creating a ‘learning organization’. Here, individuals must engage in the learning process and improve their mental models to understand the organizational system (Senge, 1990). In a learning organization, individuals can count on mutual support and a constant dialogue concerning their individual unlearning and learning processes (Rupčić, 2019). Nevertheless, according to very early critical studies, it has become apparent that the concept of the ‘learning organization’ must be considered with caution. For instance, Coopey (1995) criticizes the lack of consideration of power and politics and their effects within a learning organization. In addition, the influence of situational specificity on a learning organization was emphasized, and therefore generalizability was questioned (Tsang, 1997). This shows that to establish an effective learning organization, it is necessary to pay attention to the specific situation and act in a context-dependent manner.

When focusing on *organizational unlearning* literature, Klammer, Grisold and Gueldenberg (2019), emphasize that organizations must establish an ‘error-forgiving culture’, wherein individuals are supported in their unlearning activities. This will lower the fear of making mistakes and encourage employees to experiment with new knowledge (Klammer, Grisold & Gueldenberg, 2019). In return, this builds the frame for a so-called ‘unlearning context’, which is undisputed amongst researchers to be needed to encourage individual unlearning activities (Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012; Ruiz, Caro &

Cegarra-Navarro, 2015; Wang, Qi & Zhao, 2019; Wensley & Navarro, 2015). From a macro perspective, an unlearning context enables organizations to increase their flexibility and thus to better respond to the environment (Wang, Qi & Zhao, 2019). Cepeda-Carrion, Cegarra-Navarro and Jimenez-Jimenez (2012) emphasize that an unlearning context prepares the ground for exploration and exploitation processes, referring to the creation and application of new knowledge. Wensley and Navarro (2015) support this by highlighting that an unlearning context facilitates the revision of existing knowledge and therefore ensures the validity of the knowledge base. Here, the unlearning context not only paves the way for new *learning* but also supports organizations to recover from possible *organizational forgetting* (De Holan & Phillips, 2004; Wensley & Navarro, 2015). Additionally, in an unlearning context, knowledge can not only be unlearned but also relearned, and updated knowledge can be developed (Cegarra-Navarro, Sánchez-Vidal & Cegarra-Leiva, 2016). In other words, organizations with an *unlearning context* can continuously engage in unlearning, relearning, and learning practices. Hence, the unlearning context can be characterized as an antecedent for dismantling old routines and opening up to new ways of working (Ruiz, Caro & Cegarra-Navarro, 2015).

When focusing on unlearning from a micro perspective, individuals should be triggered to think about their current attitude and behavior (Sinkula, 2002). According to Sinkula (2002), this “enable[s] the organization to deviate from the culture in which it is embedded” (p.257) and helps organizations reorient norms, values and behaviors. This is in line with Rushmer & Davies’ (2004) study, where they state that individuals might not be aware of the need to unlearn. Hence, individuals particularly need to be encouraged to challenge previous practices, which will enhance their openness to unlearn and change (Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012). Consequently, this unlearning context provides individuals with a strong feeling of security, which strengthens them to engage in the disrupting process of unlearning old routines (Cegarra-Navarro, Eldridge & Martinez-Martinez, 2010). Overall, it has been agreed among scholars that this unlearning context should consist of three crucial aspects (Cegarra-Navarro, Eldridge & Martinez-Martinez, 2010; Cegarra-Navarro, Sánchez-Vidal & Cegarra-Leiva, 2016; Gutiérrez et al., 2015; Ruiz, Caro & Cegarra-Navarro, 2015). First, individuals must be encouraged to leave their accustomed state and open up to new perceptions. Second, potential wrong habits

within the change process must be inhibited. Third, individuals must be enabled to implement new mental models and thus use their talents. This underpins the relevance of an unlearning context that fosters the replacement of old knowledge with new relevant knowledge (Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012). In general, this relates to how an organization's context contributes to increased learning activities and how to organize a *learning culture* (Hislop, 2013).

2.7 Individual unlearning - summarizing the basis of our study

In this literature review, we focused on existing definitions and typologies of unlearning, as well as its relation to organizational change and (re)learning. This helped us to build the basis to find causal explanations for the phenomenon of individual unlearning in relation to routines in practice.

Generally, organizational *change* was found to be closely related to *unlearning*. Here, unlearning can be seen as a *prerequisite for change*, as it determines an organization's strategic flexibility (Hislop et al., 2014; Wang, Qi & Zhao, 2019). Nonetheless, research is still lacking on the actual influence of unlearning on this strategic flexibility (Hislop et al., 2014). Furthermore, the relationship between unlearning and change has so far not been examined in detail (Hislop et al., 2014). Additionally, existing studies differ as to how unlearning and change are connected and therefore show an inconsistency as to which concept follows the other (Akgün et al., 2007; Becker, 2010; Rushmer & Davies, 2004; Tsang & Zahra, 2008).

In the literature, the dominant perspective follows the assumption that *unlearning* triggers the *relearning* process (Akgün et al., 2007; Cegarra-Navarro, Sánchez-Vidal & Cegarra-Leiva, 2011; Wang, Qi & Zhao, 2019). This process simultaneously promotes exploration and exploitation activities, paving the way for new *learning*. These processes can, therefore, be seen as vital for organizations (Akgün et al., 2007; Cegarra-Navarro, Sánchez-Vidal & Cegarra-Leiva, 2011; Wang, Qi & Zhao, 2019). Nonetheless, research so far still portrays a discrepancy in the actual relation between unlearning, relearning, and learning (Hislop, Bosua

& Helms, 2018; Klammer & Gueldenberg, 2019; Sharma & Lenka, 2019; Tsang & Zahra, 2008). Firstly, scholars highlight that the acquisition of new routines is already constituted in the unlearning process, making relearning a redundant concept (Cegarra-Navarro, Wensley & Sánchez-Polo, 2010; Fiol & O'Connor, 2017a). Secondly, others refer to the fact that there is not always a causal relationship between unlearning, relearning, and learning (Sharma & Lenka, 2019). Thirdly, most researchers follow the dominant assumption that unlearning triggers relearning and paves the way for new learning (Akgün et al., 2007; Cegarra-Navarro, Sánchez-Vidal & Cegarra-Leiva, 2011; Wang, Qi & Zhao, 2019). Consequently, the confusion around these concepts diminishes the ability to utilize these studies in practice (Edmondson & Moingeon, 1998). This confusion is further intensified because of the division in unlearning literature between *organizational* and *individual* unlearning, where these concepts are used inconsistently (Akgün et al., 2007; De Holan & Phillips, 2004; Fiol & O'Connor, 2017a, 2017b; Hislop et al., 2014). Here, research on unlearning in relation to routines mostly focuses on organizational unlearning, taking a *macro perspective* (Fiol & O'Connor, 2017b). However, multiple researchers argue that the focus should be shifted towards a *micro perspective* or individual unlearning, as this process proceeds organizational unlearning (Becker, 2010; Cegarra-Navarro, Eldridge & Martinez-Martinez, 2010; Klammer & Gueldenberg, 2019; Nguyen, 2017; Tsang & Zahra, 2008). This way, individual unlearning, as a trigger for organizational unlearning, serves as a basis to embrace an organization's strategic flexibility (Hislop et al., 2014; Wang, Qi & Zhao, 2019). Therefore, research on unlearning routines should take a micro perspective and focus on *individual* unlearning within the context of an *organization* (Klammer & Gueldenberg, 2019).

Overall, we can conclude that a single definition of individual unlearning simply does not exist. This inconsistency in researchers' attempt to define 'unlearning', also makes it hard to imagine the unlearning process individuals *experience* in practice. Furthermore, we found there to be little theoretical consensus regarding the typologies of unlearning (fading, wiping, and deep unlearning; organizational unlearning and forgetting), as well as its level of occurrence (consciously or unconsciously). This could provide an answer to why research so far has only provided a limited understanding of the individual unlearning process and what could *influence* this process.

In light of this confusion, we structured the theoretical background for our empirical study in two tables, focusing on both the organizational (macro) and individual (micro) level of analysis. The first table shows “what is out there” in terms of literature and provides a basis from which we could analyze our empirical data. The second table demonstrates an overview of “what is missing” in literature. This highlights the conceptual and empirical gap in deeper exploring individual unlearning processes concerning organizational routines and shows the relevance of our study.

Table 1 - What is out there in literature?

Micro level of analysis	Macro level of analysis
<p>Organizations unlearn through their employees; therefore, attention must be paid to:</p> <ul style="list-style-type: none"> - Individuals’ characteristics and - Individuals’ mental models, dominant logic, and core assumptions that have grown obsolete. <p>Rushmer and Davies (2004) developed three different types of unlearning, namely:</p> <ul style="list-style-type: none"> - fading, - wiping and - deep unlearning. <p>Individuals need motivational support.</p> <p>Managers need to generate a shared understanding and develop engagement by:</p> <ul style="list-style-type: none"> - Showing clear benefits of the initiated change and - Individual involvement throughout the process. 	<p>Fiol and O’Connor (2017a) show that organizations can unlearn established routines through a process of questioning old routines, discarding these routines, and learning new ones.</p> <p>De Holan and Phillips (2004) state that unlearning can occur:</p> <ul style="list-style-type: none"> - <i>consciously</i>, referring to organizational unlearning or - <i>unconsciously</i>, referring to organizational forgetting. <p>Organizations can facilitate this process through an unlearning context consisting of:</p> <ul style="list-style-type: none"> - Individuals holding values such as open-mindedness, - An error-forgiving culture, where individuals are triggered to reorient norms, values, and behaviors and challenge previous practices, - A strong feeling of security, and - Mutual support and constant dialogue.

Table 2 - What is missing in literature?

Micro level of analysis	Macro level of analysis
How do individuals <i>experience</i> their unlearning processes? What might <i>influence</i> individuals in their unlearning experience?	What is the influence of individual unlearning on an organization's strategic flexibility?

Hence, these questions posed on the micro level of analysis, form the basis of our research questions, which we will focus on answering in our present study.

3. Methodology

The following chapter serves as a basis to ensure the transparency of the methodology we have chosen for conducting our research. Therefore, we will first present the chosen research approach and its underlying philosophical grounding. In the second part, we will outline our research design and introduce our case study. In the third part, we will elaborate on our data collection method and, in the fourth part, show our data analysis process. Here, we will also highlight the reasons why specific methods were chosen. In this way, the reader will gain a comprehensive insight into our research approach and is able to follow our analysis and discussion with a deeper understanding of why these conclusions were drawn. Finally, we will end this chapter by demonstrating reflexivity concerning the quality and validity of our chosen methods.

3.1 Research Approach

Our research approach closely refers to our aim to gain a deeper understanding of the individual unlearning process in relation to routines and how individuals experience it. Specifically, our research concentrates on building a bridge between structural explanations and human action. In other words, our interviews were conducted to establish a better understanding of the influence of organizational structures, like a system-based routine, on the social world of individual unlearning. Tsang and Zahra (2008) also acknowledge this interrelation. In their study, the concepts of structure and agency are linked to the ostensive and performative aspects of routines. Thus, to some extent, our study follows the critical tradition and, more precisely, Giddens's structuration theory (Prasad, 2018). This is especially valuable for our research as "structuration is the process that connects social systems and the situated activities of human beings via the reproduction and transformation of social systems in actual social practice" (Prasad, 2018, pp.213–214). This structuration theory serves as a sensitizing tool to direct our focus to specific individuals and their interactions, as their choices and social competence are of central importance. On the one hand, this tradition

showed us that the particular interrelation of individual unlearning in combination with organizational routines had not been studied so far. On the other hand, moving between actors and structures and micro and macro perspectives enabled us to establish a thorough understanding of our phenomenon (Prasad, 2018).

Furthermore, our study focuses on giving meaning to our phenomenon of individual unlearning by understanding individuals' perceptions and actions. Hence, our study follows the interpretive perspective focusing on understanding individuals' meaning and intentionality (Prasad, 2018). In this sense, we acknowledge that social studies, placing individual action in the focus, require a different research logic than natural sciences (Bryman, 2016). We intend to gain a deeper understanding and find causal explanations for our phenomenon and its effects by interpreting social action (Bryman, 2016; Prasad, 2018). In other words, we attempt to find explanations for why the concept of unlearning is so challenging in practice. Here, our main focus lies on how individuals experience unlearning and how these individuals are influenced in their unlearning activities. Concerning the active role of the individual in the ongoing accomplishment of the construction of social reality, we recognize that social entities are not stable, but are determined by individuals' action (Bryman, 2016). In this sense, we follow the ontological assumption that reality is socially constructed through acts of interpretations (Prasad, 2018). In general, we acknowledge that we also took an active role in the interpretation of this social world and thus possibly exerted influence on it (Prasad, 2018). This influence is further strengthened because one of us has worked at the company before. Therefore, our study could be biased because of this pre-knowledge of the organization and its employees. In this regard, we were explicitly careful to remain open-minded regarding our empirical research and to examine our data with an objective view. This is in line with Alvesson's (2003) reflexive approach, calling for careful and ongoing reflection. Overall, we do not intend to conclude with any truths but instead gain a deeper understanding by outlining the subjective nature of individuals' experiences with unlearning.

3.2 Research Design

Following the aim of our research, we are conducting an exploratory study aimed at developing an understanding of our phenomenon (Saunders, Lewis & Thornhill, 2007). In this sense, we follow an abductive approach, as we are willing to break new ground and are open to new insights as a result of our empirical research (Prasad, 2018; Saunders, Lewis & Thornhill, 2007). Therefore, a rough literature review of our central concept of individual unlearning formed the basis for the collection of our qualitative data. Nevertheless, we remained open-minded during the data collection and adapted our interview questions to new insights and challenges we had gained throughout the interviewing process. For instance, our first interviews demonstrated that an organization's culture plays a decisive role in our phenomenon, which we had not taken into account from the beginning. Nevertheless, we then included it in our interview guide and also revised our literature in this regard.

In light of our exploratory research, we studied our phenomenon in its real-life context. In other words, understanding individuals' subjective reality required us to take their specific context into account. Hence, a research strategy based on a case study corresponded to our ambition and was, therefore, best suited to answer our research questions (Saunders, Lewis & Thornhill, 2007).

3.2.1 Case study context - Robert Bosch A/S

With regard to our case study approach, we chose to conduct our empirical research at Robert Bosch A/S in Ballerup, Denmark. Robert Bosch A/S was founded in 1918 as a subsidiary of Robert Bosch AG, which is headquartered in Germany (Bosch in Denmark, 2020). Today, it is still a growing business, employing some 700 employees within four business sectors; Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology (Bosch in Denmark, 2020). In the upcoming parts of this thesis, we will refer to our research site as 'Bosch'. This research site was chosen for mainly three reasons. First, we intended to conduct our research in a mature organization where many routines are in place

and potentially deeply embedded in the daily business. Second, Bosch claims to actively focus on ‘innovation’ and on ‘shaping change’ (We Are Bosch, 2020). This creates a highly interesting basis for us to examine how Bosch, as a mature organization, is still able to remain flexible and open to new insights despite its deeply embedded routines. Third, conducting our research at Bosch enabled us to examine our data with two perspectives, one more internal perspective, and one external perspective, as one of us has previously worked at the company. These two views not only helped us to better connect to the interviewees but also opened up further possibilities for our analysis as we could benefit from specific pre-knowledge. In general, this single case study supported our ambition to gain an in-depth understanding of individual unlearning within the context of a mature organization (Saunders, Lewis & Thornhill, 2007).

In order to be able to build a consistent and rich story around our phenomenon, we looked for a change which affected the routines of several employees and, thus, forced them to unlearn their previous way of working. Within our first interview, we identified a change of an IT system within the organization, which all our interviewed employees experience. As our interviewees told us, the headquarters in Germany initiated this change. Here, our interviewees had to discard their old routines and adapt to the new system. In this regard, one of our interviewees highlighted:

Based on my experience, it is always easier if the routine is formed by yourself or if you at least were involved in the development process. If it comes from someone else without being able to have any impact, it is much harder. (Sarah)

As Sarah recognized, externally imposed routines are more challenging for individuals to unlearn than routines that are created by themselves or where they have been heavily involved in the development process. This demonstrates that these externally initiated routines pose a significant challenge for individuals to unlearn them. This finding made it even more interesting to investigate how these individuals experienced their unlearning processes and how they might have been influenced in their unlearning activities. In this regard, our case study approach enabled us to answer research questions about ‘how’ individuals experienced their unlearning process and ‘what’ influenced this process (Saunders, Lewis & Thornhill,

2007). Additionally, we were able to find explanations for ‘why’ the process of unlearning is so challenging in practice and ‘why’ individuals need support in their unlearning (Gubrium & Holstein, 1997). Hence, our case study approach and this specific change situation at Bosch increased the richness of our study and therefore represented an optimal research field.

Nonetheless, due to confidentiality reasons, we were not able to obtain more detailed information about the structure or handling of the system. However, this did not limit our research as we want to understand individuals’ experiences with the unlearning process and not the change of the system itself. On the contrary, the system change provided us with a solid basis for the interviews, which enabled us to develop our story even further. This way, we were able to study how individuals experience the same unlearning process differently, which allows us to research our phenomenon on an even deeper level.

3.3 Data Collection Method

Our empirical data was collected through qualitative research interviews with various employees at Bosch. In these interviews, we mainly focused on people’s experiences with changes in their routine-actions and, respectively, their individual unlearning processes. This method is in line with Kvale’s (1996) argumentation that an understanding of individuals’ actions can be established on behalf of the illustration of their lifeworld. This understanding can be achieved by means of conversations, as a method for obtaining knowledge and understanding human beings (Kvale, 1996). In a professional setting, such conversations will take form as qualitative research interviews (Kvale, 1996). Through these interviews, we were, therefore, able to reconstruct events and understand our interviewees’ experiences at work (Kvale, 1996). According to Prasad (2018), interviews are highly reliable sources of data as so-called ‘accounts’, which can be seen as “sense making narratives used to justify actions and grasp social situations” (p.72). Nonetheless, the statements that derive from the interviews should not merely be accepted as social reality (Prasad, 2018).

In light of our study, we conducted semi-structured interviews as we followed a list of predetermined themes derived from the reviewed literature, but the questions varied from

interview to interview (Saunders, Lewis & Thornhill, 2007). These interviews were conducted with highly diverse employees because of their possible different unlearning experiences. In understanding their contrasting lifeworlds, we thereupon intended to uncover the story behind their experiences and gain a deeper understanding of our phenomenon (Kvale, 1996; Saunders, Lewis & Thornhill, 2007). Hence, in representing a wide range of employees, purposive sampling was applied in collaboration with our contact person at Bosch (David & Sutton, 2004). This contact person provided us with a sample of twelve highly diverse employees, varying in aspects such as gender, position, responsibilities, department, and length of employment at Bosch. These interviews were scheduled between 12 March 2020 and 30 March 2020 at our research site.

However, because of the recent ‘COVID-19 crisis’ related to the coronavirus outbreak, we were, unfortunately, unable to conduct these interviews on-site (WHO, 2020). As soon as the virus entered Europe, the Danish government closed its borders (Ministry of Foreign Affairs of Denmark, 2020). Shortly after the virus outbreak, both of us returned to our home countries to be with our family. Also, because of this crisis, two interviewees canceled their interviews. In light of these events, the remaining ten interviews were conducted from everyone’s own home via ‘Skype for Business’, an online communication tool (Microsoft, 2020). We chose to conduct the interviews utilizing this tool, and not via phone, as this tool would allow us to see our interviewees via their webcam. This way, we would still be able to conduct face-to-face interviews and create a closer connection to our interviewees. According to Alvesson (2003), interactivity and ‘closeness’ to interviewees are needed to establish a natural human interaction. Respectively, we would be able to deeply explore their lifeworlds and experiences of social reality (Alvesson, 2003). Nonetheless, all interviewees refrained from using their webcams. On the one hand, this exempted us from interpreting facial expressions and creating this closer connection. On the other hand, this helped both the interviewees and ourselves as interviewers to speak freely at the places we were situated. In most cases, this setting created a safe environment and, therefore, did not influence the data collection (Saunders, Lewis & Thornhill, 2007). However, in a few cases, the interviewees were not located in a quiet home environment, as they were frequently disturbed by, for example, their children. Furthermore, because of this setting, we were unable to include our planned participant observations. According to Prasad (2018), this will compromise the richness of the interviewees’ narratives.

If the interviews had been in person, the contextualized linkages between interviews and everyday lifeworlds would be easier to make (Prasad, 2018). This will, therefore, be seen as one of the significant limitations of our study. Moreover, as we both had returned to our home countries, we could not conduct the interviews side-by-side and interact as interviewers. Therefore, we decided to split the role of the interviewer between the two of us. This way, the interview would feel more like a conversation between two people. The other then took over the role as a 'note-taker' and made sure all our themes were covered in each interview. In order not to interrupt the interviewee while talking, the interviewer and note-taker communicated via a separate chat. We also decided to split the interviews because it would limit researchers' bias since one of us had previously worked at Bosch and could, therefore, take certain aspects for granted.

Our first interview on 12 March 2020 was conducted with our contact person, who works at the Learning and Development department. In this interview, we aimed to look for a change in routine that most employees at Bosch have in common. This change turned out to be an IT system change, which was assigned by the German headquarters and affected all employees. Following this first interview, this company-wide change was used as our basis to further explore in the upcoming interviews. A few working days before each interview, we send an email to our remaining nine interviewees. Here, we provided the interviewees with an introduction to our topic and a list of the interview themes. Additionally, we asked our interviewees to already think about their experiences in line with the system change and the influence it had on their day-to-day work practices. Providing our interviewees with this information before their interviews, promoted the credibility of our interviews as it allowed the participants of our study to prepare themselves for the discussion in which they were to engage (Saunders, Lewis & Thornhill, 2007).

During each interview, we followed an interview guide with predetermined themes and questions, to create a sense of order (David & Sutton, 2004). These questions were related to the interviewee's experiences with the company-wide system change and their understanding of unlearning accompanied routines. Nonetheless, these interviews were conducted with flexibility to explore topics that arose spontaneously and initially were not considered. Overall, these interviews contained open-ended questions, where we, as researchers, asked for

clarification if needed (David & Sutton, 2004). Here, each interview started with an introduction of ourselves as researchers and why we are researching this topic. In this introduction, we clarified our roles in the upcoming interview, wherein one of us would be leading the interview, and the other would take notes. First, the interview-lead started asking introducing questions (Kvale, 1996). More specifically, questions were asked such as “what is an organizational routine for you?” and “what is unlearning for you?”, but also “did you know about the concept of unlearning before?” and “in what sense do you see a relation between routines and unlearning?”. These questions helped us to see whether our interviewees are familiar with our theoretical concepts in practice, and if so, what they deemed as important (Kvale, 1996). Nonetheless, we continuously kept the research questions of our study in mind and, as researchers, therefore remained in contact via a separate online chat. In this chat, we also discussed what probing questions to ask for the interviewees to elaborate on their story (Kvale, 1996). Generally, if needed to extend our interviewees’ answers, we asked follow-up questions by first paraphrasing what has been said and thereupon directly questioning their answer by asking, “why do you think that?” (Kvale, 1996).

After ‘setting the scene’, we shifted the discussion towards the more specific example, namely the IT system change and the possible effect on their routines. Firstly, we provided them with the opportunity to talk about the context in their own words, the change itself, and the circumstances. Here, we asked questions such as “who was involved?” and “how did the initiators reason the need for the change?”. This helped us to generally understand how our interviewees experienced the change and, respectively, their unlearning process. Secondly, by asking questions such as “how did this make you feel?” and “how do you think your emotional responses affected your approach to this situation?” we aimed to deeper explore their unlearning experience and their influence on it. Thirdly, we focused on external aspects, like the organizational culture, which could have possibly influenced their unlearning process. This relates to questions like “who or what helped you (or made it difficult for you) to give up the way you usually thought and acted?”. We concluded each interview by asking the interviewees if there was anything else they would like to share regarding their experiences of abandoning established ways of acting and thinking. This sometimes opened up valuable new discussions, in which we went through the same order of questions.

Generally, the interviews lasted between 45 and 70 minutes and were recorded, with consent from the interviewees. After each interview, we called each other to discuss the interview and quickly go through the notes of the note-taker. To guarantee interviewees' confidentiality, we used fake names when analyzing and discussing our data (Saunders, Lewis & Thornhill, 2007). Here, we assigned names to our interviewees without considering their gender. This way, for example, John can either be male or female. To provide an overview, a list of our interviewees' details can be found in the appendix of this thesis. All in all, despite the challenges related to the COVID-19 crisis, the insight gained from these interviews provided us with a more detailed understanding of our phenomenon and the lifeworlds of our interviewees.

3.4 Data Analysis Process

Following our abductive approach, we analyzed our data in three series. The first analysis was performed mid-March after our first conducted interview. After transcribing this interview, we were able to form a picture of the change in routine which all interviewees had in common. This picture performed the basis of the subsequently planned interviews, wherein we could frame our questions according to this example. The second analysis took place after we conducted half of our planned interviews. This ensured us to remain open-minded to possible contradictions between theory and practice and adapt our interview guide and, respectively, our literature review (Alvesson & Sandberg, 2013). According to Alvesson and Sandberg (2013), this enabled us to question existing theories and allow us to extract so-called 'mysteries' from these clashes. A mystery can be referred to as an empirical finding that diverges from what was expected, calling for a new set of ideas to solve this mystery (Alvesson & Sandberg, 2013). In the third and final analysis, these remaining interviews were then transcribed and analyzed.

Nonetheless, before starting to analyze our data, we sorted the interview statements from our transcripts based on content as well as form. Gubrium and Holstein (1997) refer to this balancing act as 'analytical bracketing', wherein content relates to 'what is happening in the data?' and form relates to the question 'how does this take place?'. This thematic sorting

process is in line with our interpretive perspective. Here, questions related to ‘what’ cannot merely be taken for granted and should be followed by questions related to ‘how’ (Rennstam & Wästerfors, 2018). Hence, we first sorted the material based on content and focused on ‘what’ our interviewees said. Subsequently, we placed these statements inside brackets to clarify the remaining ‘how’. This showed us how our phenomenon is performed, from which we were able to identify explanations for how individuals perceive their own unlearning. Afterward, recurring elements were each coded with another color, and thereupon sorted in separate tables (Charmaz, 2006). This coding recommendation by Charmaz (2006) helped us to discover the theoretical meaning behind our data by placing statements in a specific order and, respectively, making sub-categorizations. This provided us with a starting point for our analysis, as we were able to see what was happening in our empirical material (Charmaz, 2006). After that, our second series of analyses helped us to find unexpected codes such as ‘context’ and respectively ‘culture’. Overall, this provided us with a deeper understanding of individuals’ unlearning experiences.

After analyzing our data, we again sorted the statements from each code in a certain order. This process can be referred to as ‘analytical induction’, focusing on one case at a time (Rennstam & Wästerfors, 2018). According to Rennstam & Wästerfors (2018), the objective of analytical induction is to formulate and refine an explanation for your phenomenon, while interacting with the data. Therefore, step-by-step, we focused on explaining our phenomenon. In this process, per code, we first reviewed initial fragments to outline a temporary explanation (Rennstam & Wästerfors, 2018). For the code ‘context’, such a fragment was in our case: “individuals need support to unlearn”. Afterward, we compared this with other fragments from our material to possibly form an initial explanation (Rennstam & Wästerfors, 2018). Hence, for example, the explanation was modified to: “individuals need a supportive manager to unlearn”. This process continued until we finished all fragments in line with this specific code, after which we moved to the next code. During this process, we also actively looked for negative cases that could contradict our attempt to come to an explanation (Rennstam & Wästerfors, 2018). This way, we were able to indicate the need to possibly rephrase our explanations. Additionally, this process also helped us to place some of the codes outside of the scope of this study. Here, we could see that codes such as ‘national culture’ and ‘industrial context’ are somehow connected to our phenomenon but are beyond the scope of

our study. Hence, this process truly helped us to define our phenomenon in a more precise way (Rennstam & Wästerfors, 2018).

During the writing process, we created so-called ‘excerpt-commentary units’ to build a basis for our argumentation (Emerson, Fretz & Shaw, 2011; Rennstam & Wästerfors, 2018). Under each theme, related to our codes, we formulated an analytical point, followed by a coded statement and, subsequently, an analytical comment (Rennstam & Wästerfors, 2018). Hence, in elaborating on the excerpt-commentary units, we spoke for the empirical material and expressed it in theoretical terms (Rennstam & Wästerfors, 2018). Creating these units allowed us to organize our collected material and gradually build a story around it (Rennstam & Wästerfors, 2018). This gave meaning to our material and enabled us to underline the existence of our phenomenon. When focusing on individuals’ experiences, we, therefore, aimed to understand how these individuals ‘accomplish’ themselves as members of a mature organization. Hence, we aimed to solve our extracted mysteries by developing a new understanding based on systematic analysis.

3.5 Quality and Reflexivity

In the pursuit of scientific excellence, traditional quality standards of objectivity, reliability, and validity have significant advantages regarding social research aiming to understand the social lifeworld (Lindhult, 2019). In other words, research quality can be enhanced by reflecting on the traditional quality standards and therefore increasing trustworthiness through a certain degree of objectivity, reliability, and validity of our study. In this regard, Alvesson’s (2003) reflexive interview approach calls for careful and ongoing reflection throughout the fieldwork. Following this approach enabled us to increase the quality of our research in general.

Referring to objectivity, we acknowledge that our study involved certain biased aspects. We first recognize that we were running the risk of subjectivity as one of us has previously worked at Bosch and therefore possessed pre-knowledge of the organization. Consequently, we took several actions to ensure the objectivity of our study. First, splitting the lead in our

interviews enabled us to remain objective but also benefit from the closer connection to the interviewees. Second, conducting the interviews with an internal and an external perspective helped us to question aspects that were taken for granted from the interviewees but also to dig deeper as pre-knowledge was used to formulate follow-up questions. Here, also the situation of our interviews affected the collection of our data. The COVID-19 crisis forced us to conduct our interviews via Skype for Business, which further complicated the already unnatural situation of an interview. Yet, this could have also led to our interviewees not feeling so observed and therefore being able to speak more freely. Furthermore, when analyzing and interpreting the data, we recognize that following the perception that individual unlearning exists portrays only one viewpoint. Even though we do question the concept in our study, we still interpreted most of the data with our biased view that individual unlearning does exist. This has also been acknowledged by Prasad (2018), highlighting that the human tendency to establish shared interpretations of reality is the central limitation of the interpretive perspective.

Concerning reliability, ensuring a high degree of credibility was a great challenge, mainly due to the short time-frame of our study. Yet, focusing on a company-wide system change provided our study with certain homogeneity and therefore helped us to increase the reliability of our research. Moreover, we ensured transparency by outlining our research approach, design, and process. This helps the reader to not only follow our analysis and discussion but also frames the possibility to draw conclusions from our study. However, our study cannot be generalized, as it is based on one single case study in which the specific context plays a decisive role. Our intention is, therefore, to build a story around our phenomenon at Bosch, thereby contributing to existing theory and opening up potential areas for future research on unlearning.

In relation to our single case study approach, Saunders, Lewis and Thornhill (2007) also stress the need to make use of different sources of data “to ensure that the data are telling you what you think they are telling you” (p.139). However, due to the COVID-19 crisis and our limited time-frame, we, unfortunately, did not have the opportunity to validate our interview data with a second data source, such as observations. This formed a significant limitation of our study regarding validity. Additionally, limited insights into the organizational systems and

structures due to confidentiality reasons might have restricted our approach to following the structuration theory. Due to the insufficient knowledge about the IT system we concentrated more on agency than on structure at the expense of the actual relationship between the two (Prasad, 2018).

Nonetheless, our open-mindedness and recognition of the limitations of our fieldwork enabled us to remain reflective throughout our research (Alvesson, 2003). Hence, being aware of the limitations of our study encouraged us to continually challenge our perspective and look at our data from various angles. This allowed us to pave the way for a plurality of meanings and increase our research quality.

4. Data Analysis & Discussion

In this chapter, we will present and discuss our empirical data, in comparison with the reviewed literature. In our empirical material, interviewees refer to a specific IT system change, which they all have experienced. In light of this change, the interviewees had to equally adapt to the situation, unlearn their old way of working, and thus change their routines.

This chapter is divided into six sections. Firstly, we will set the scene by diving deeper into the confusion around the individual unlearning process and discuss possible explanations for it. This first part will ensure a consistent basis for our study and allow the reader to gain a better understanding of our data. In the following sections, we will address our research questions. Secondly, in light of our first research question, we will show the two different ways in which individuals can experience their unlearning process. Thirdly, we will examine the difference between new and long-standing employees and what impact this has on their unlearning experience. Fourthly, following our second research question, we aim to explore factors influencing individual unlearning. Here, we will illustrate how individual unlearning can be influenced, namely through individuals' personality, mindset, and knowledge background. Fifthly, we will elaborate on how motivational support can influence individuals' unlearning activities. Sixthly, we will show how the organizational context and culture influence individuals in their unlearning.

4.1 Does the individual unlearning process exist at all?

In theory, there still seems to be no consensus about the process of unlearning for individuals, as well as its relation to other concepts (Akgün et al., 2007; Becker, 2010; Hislop, Bosua & Helms, 2018; Klammer & Gueldenberg, 2019; Rushmer & Davies, 2004; Tsang & Zahra, 2008). Therefore, in order to grasp individuals' perceptions and give meaning to our phenomenon, we first asked our interviewees what they understand by 'unlearning'. In light

of these findings, we are aware of the critical limitation of the interpretive perspective, where we as researchers think of individual unlearning as an existing *process* and an essential *prerequisite to change* (Prasad, 2018). This could have formed a potential bias when performing our study. Nonetheless, the confusion around individual unlearning was also found in practice, therefore confirming it to be a challenging process.

Primarily, two contrasting experiences got apparent from our empirical data. On the one hand, the majority of interviewees experienced unlearning to be an existing process in practice. Jens exemplified that through:

I think we do a lot of unlearning at Bosch because when we are about to follow new guidelines or processes, we, of course, have to unlearn the ones before. So it happens quite often. (Jens)

Here, Jens demonstrated that individuals in mature organizations, like Bosch, are confronted with unlearning in their day-to-day work. This finding is in line with Crossan, Lane and White's (1999) understanding of 'strategic renewal' in a continuously changing environment, wherein organizations need to balance between exploration and exploitation processes. In this case, Bosch, as a mature organization, can critically reflect upon their existing knowledge and change their practices accordingly (Hislop et al., 2014). In line with this theory, the majority of our interviewees referred to unlearning as challenging their current practices and eventually discarding this related knowledge, when having to adapt to, for example, a new IT system. This confirms the notion of 'behavioral flexibility' by Waegeman et al. (2014), where individuals first need to unlearn old knowledge and routines to adjust their behavior based on new knowledge.

On the other hand, some interviewees mentioned unlearning to be challenging, as it confused them:

That is a difficult question, I mean if I don't use it [routines] anymore then I don't know [if I unlearned]. (Mike)

Unlearning? So like not learning things? I don't think that is something that I do. No, I mean, I think unlearning... that I unlearn things... if something needs to be changed or optimized, then I would also keep in mind "how did it used to be" in order to focus on the optimization. Whenever you need to build on something, learn something new, then you build on your existing knowledge, right? (Rose)

In general, the first statement opens up the question of whether the unlearning process exists at all. The answer to this question could put a stop to the confusion around the individual unlearning process. In theory, this statement could be linked to the notion of whether unlearning is an *unconscious* or a *conscious* process for individuals (De Holan & Phillips, 2004). In this statement, Mike thinks unlearning might have occurred *unconsciously*. In that sense, according to Rushmer and Davies' (2004) study on types of individual unlearning, this process would be more related to *fading* as an unconscious process. This type of unlearning could also be related to De Holan and Phillips' (2004) typology of *organizational forgetting*. Nonetheless, although the system change was a deliberate initiative that had been imposed externally, Mike did not see unlearning his routines as a conscious process. This empirical finding is, therefore, in contrast with both Rushmer and Davies (2004) and De Holan and Phillips (2004). They either refer to this process as *wiping*, or relate to this process as *organizational unlearning*, where both require a deliberate, conscious act of giving up a particular way of working (Rushmer & Davies, 2004; De Holan & Phillips, 2004). Referring to Alvesson and Sandberg (2013), this empirical finding diverged from what we expected before. This, therefore, creates a mystery around 'individual unlearning'. Hence, solving this mystery could explain why the individual unlearning process is causing confusion in theory as well as in practice.

The second statement could provide an answer to the question whether the unlearning process exists. This statement demonstrates that individuals might not *unlearn* what they know, but *change* their knowledge base according to the initiated change and simply take their current knowledge with them. In the unlearning literature, this close relationship between the concepts of unlearning and change is also acknowledged (Akgün et al., 2007; Becker, 2010; Hislop et al., 2014; Klammer & Gueldenberg, 2019; Ngana, 2015; Rupčić, 2019; Tsang & Zahra, 2008; Wang, Qi & Zhao, 2019). Nonetheless, studies as to how these concepts are

connected seem to again lack theoretical consensus, which makes it difficult to examine their actual relation, as well as to come to a single definition (Akgün et al., 2007; Becker, 2010; Hislop, Bosua & Helms, 2018; Klammer & Gueldenberg, 2019; Rushmer & Davies, 2004; Tsang & Zahra, 2008). Furthermore, as Rose stated in the interview, when learning something new, she also builds on her existing knowledge and, therefore, does not unlearn. If this had been the case, valuable knowledge could have been forgotten. This is in line with Zahra, Abdelgawad and Tsang's (2011) view that unlearning processes could hinder learning processes. In this case, supposedly obsolete knowledge would be discarded, the value of other knowledge would be reduced, and therefore learning processes would be delayed (Zahra, Abdelgawad & Tsang, 2011).

Nonetheless, despite the confusion around the unlearning process, most researchers agree that, either consciously or unconsciously, the *ability to unlearn* remains a *prerequisite to change* (Akgün et al., 2007; Becker, 2010; Hislop et al., 2014; Rushmer & Davies, 2004; Tsang & Zahra, 2008; Wang, Qi & Zhao, 2019). This is in line with the majority of our interviewees. They confirmed the existence of the unlearning process, but at the same time, also highlighted the close relation to change. This was expressed by Julia and Sarah:

Yes, if you have to change, then, of course, you have to unlearn. So, unlearning and change are very closely related. (Julia)

But now I understand why [they are not using the new system] because people just do not want to unlearn, they don't want to change. Even though this is an improvement to what they have been doing for so many years. They got used to the way they do it, and they don't even want to think that this new way might be easier and more effective. (Sarah)

The first statement shows how difficult it is to clearly separate *unlearning* and *change*, but also underlines the interconnection between the two concepts. This was also found in literature where Hislop et al. (2014) emphasize the bidirectional character of the relation between unlearning and change. However, among researchers, there still seems to be confusion as to which concept follows the other. Whether there is a change initiative first,

which then triggers the unlearning process, or whether it begins with unlearning and the individual changes as a consequence (Akgün et al., 2007; Becker, 2010; Hislop et al., 2014; Wang, Qi & Zhao, 2019). From our empirical data, we could not provide an explanation as to what process triggers the other. As can be noted from the second statement, the main reason for this is that our interviewees talked about unlearning and change interchangeably. Furthermore, the second statement shows that some employees were resisting to unlearn and change. According to the unlearning literature, deeply embedded routines could likely create this resistance (Fiol & O'Connor, 2017b; Hislop, Bosua & Helms, 2018; Klammer, Grisold & Gueldenberg, 2019; Swift & Hwang, 2008; Wang, Qi & Zhao, 2019). Consequently, individuals can be inhibited from change and respectively from learning this new system.

As a concluding remark, we proved unlearning to remain a challenging concept. Additionally, the lack of consensus around the individual unlearning process in theory can also be found in practice. Here, the mystery around individual unlearning was formed in two ways. First, we can see contrasting perspectives as to whether unlearning happens *consciously* or *unconsciously*. If unlearning would indeed be an unconscious process, it would explain why pinpointing this process is so challenging in practice. Nonetheless, even though unlearning might not happen consciously, it would remain a prerequisite for individuals to change. Second, confusion remains as to which concept, *unlearning* or *change*, follows the other. The interconnection between these concepts makes it difficult to separate the two. Overall, we can state that there still needs to be a prerequisite, some kind of adaptation process, before someone can change. In the forthcoming sections, we are therefore focusing on how to shape this *prerequisite*.

4.2 Change - a matter of “hell no” or “yes please”

Changes usually represent challenging times for individuals within an organization involving a significant degree of uncertainty and instability (Palmer, Dunford & Buchanan, 2017). This could imply that individuals are generally more hesitant towards change, which will impact their openness to unlearn. According to Hislop (2013), providing *motivational support* is needed to enable individuals to unlearn and change. In line with our first research question,

we asked our interviewees about their experiences with the recent change of the IT system and its implications on their established routines. Here, we wanted to explore how individuals actually experience their unlearning process (Hislop et al., 2014; Macdonald, 2002; Rushmer & Davies, 2004). Hence, we focused on why individuals may need motivational support to unlearn and change.

The system change at Bosch could have initially evoked two sorts of reactions, which was highlighted through the following statement:

I think there are two sorts of reactions to this. Either you can be a bit annoyed because you think “now I have to spend time learning a new system and why is that?” or you can say “I have some learnings from the old one, I can take that with me to comprehend because there will be some similarities. (Rose)

This underpins how individuals can react differently to a change in routines, such as the implementation of the new system. Some may think “hell no” and be quite *negative* about the change and the additional efforts it entails. While others may be *positive*, like “yes please”, and look for benefits of the change and which knowledge could help them to adapt. When focusing on the actual reactions of our interviewees regarding the system change, six out of the ten interviewees mentioned feelings of ‘frustration’ when talking about how this change affected their routines. For instance, this was expressed in the following three statements:

Frustrated. I think that is an honest answer. Initially, you feel frustrated and a bit annoyed. Why should we change into something that is not better in every way? (Mike)

It was frustrating in the beginning, I felt like I already knew how to do it, it was like going back to the very basics, that I already felt confident in doing. It was frustrating because it was like going back and re-learning again. It was very hard. (Alice)

Of course, my first impression was frustration. I was not happy that I had to do some extra bureaucratic steps. This always happens... that we have to make our processes more complicated. (Sarah)

These three statements show that the initial reaction from most interviewees was *negative*. All three interviewees showed skepticism about the change, as their previous routine worked very well so far. They also emphasized that this change brought additional efforts that made their working life more difficult. It became apparent from our data that three underlying reasons determined these feelings of frustration. Firstly, the interviewees did not seem to understand why the system change was needed. Secondly, the reason behind some interviewees' frustration is mainly because of the interviewee's unwillingness to unlearn. The feeling of confidence regarding the current system also seemed to play a role in having to learn a new routine and unlearn the previous one. The current system felt more secure and easy, whereas the new system was a challenge, especially in the beginning. Thirdly, a negative connotation of bureaucratic requirements seems to be another reason for some of the frustrations of our interviewees. The fact that processes at Bosch have to follow several bureaucratic steps, which makes them more complicated, often leads to the unwillingness of individuals to change old practices. Overall, these negative reactions of the majority of our interviewees could be linked to the 'valley of despair', a phase individuals go through in the 'classical change curve' (Palmer, Dunford & Buchanan, 2017; Schneider & Goldwasser, 1998). Going through this valley of despair probably made our interviewees realize that the system change requires them to abandon their old practices. This loss of their old routines could have involved feelings of grief and pain (Palmer, Dunford & Buchanan, 2017). Hence, they needed to overcome this particular negative experience before they could see the light at the end of the tunnel (Schneider & Goldwasser, 1998).

However, our empirical research also revealed that some individuals perceived this system change as *positive*. This can be seen in some of the positive reactions of the other four interviewees:

The first time I heard it, it didn't really catch me, but I remember I saw a presentation about this whole system and I was actually listening and it made a

lot of sense to me. So I looked a little bit more into it, and it actually did change some of my essential routines. (Tom)

I think they understood that they could have a better overview of things if they follow a new process. I think it was great and made work easier, so it was valuable. And I do like change when it is optimizing something. I think everyone really liked the optimization of the data. (Jens)

These statements reflect somewhat positive reactions to the system change, where the benefits of the change outweighed the perceptions of the interviewees. For instance, Jens stressed that he understood the reason why this change was implemented, namely for the company to have a better overview of the processes, and additionally clearly saw the benefits of the new system for himself. Looking at the positive reactions, it seems that not every affected individual went through the valley of despair. Comparing our positive responses to the classical change curve by Schneider and Goldwasser (1998), it seems that these individuals did not experience any feelings of grief but instead had a positive outlook throughout the whole change process.

Nonetheless, when taking a closer look at our interviewees' reactions in relation to the change process, it must be taken into account that our interviewees may have described different phases of the change process. A more positive or negative picture of the change in retrospect may distort their memories of how they actually experienced the change and, in this respect, their unlearning process. In other words, positive descriptions of their unlearning experience within the change do not automatically imply that there were no challenges involved. For instance, Tom stressed his positive experience with the change, unlearning his old routine, and adapting to the new system. However, he also highlighted that the new system did not catch him from the beginning and that he first required more information before he could see the benefits which changed his outlook. This closer look at the experience of individuals opens up a different angle underpinning that also individuals with a rather positive experience still require *motivational support* to encourage their unlearning (Sinkula, Baker & Noordewier, 1997; Sinkula, 2002). This finding is also in line with Schneider and Goldwasser (1998), in this sense that it is not possible to avoid all negative feelings within a change. It is essential to flatten the curve as much as possible to support individuals in coping with their

emotional journey. This will ultimately increase their ability to unlearn and change (Macdonald, 2002).

In general, our findings show a discrepancy to the change literature. According to Schneider and Goldwasser (1998), the classical change curve begins with high expectations towards the change and the accompanying benefits. Here, the valley of despair is triggered by the overly optimistic picture of the challenging reality. Yet, our findings reveal a different perspective on this notion. Especially Mike highlighted that his initial reaction to the system change was frustration, because of his negative perceptions of the change. This shows that negative feelings can arise from the start and, therefore, not every change begins with positive expectations. This would mean that the valley of despair could be present from the very beginning, making the whole process even more challenging for individuals but also for organizations. In this respect, the individual's attitude towards a change initiative seems to depend on how it might affect him or her in terms of the current routine and extra efforts required to unlearn and adapt. Sanne demonstrated this notion with an example:

If there are external regulations, for example, due to audit reasons, they think we have some compliance issues in some processes and ask us to follow a new routine or a new process. When in that new routine, my working life becomes way harder and so much more difficult, then I am not willing to follow it. Of course, I have to, because it is important, but it is very hard to start doing things in a different way when I might not agree that it is necessary or efficient. (Sanne)

This statement emphasizes that the system change made Sanne's routine more complicated and, thus, instead provoked resistance from her side. Hence, when a system change negatively affects an individual's routine, in the sense that it makes their working life harder, an employee could not be as willing to follow the new system. As a consequence, individuals would have a negative connotation towards the change, experience negative feelings very early and thus be unwilling to unlearn. They would simply not see the benefits of changing their routine and stick to their old way of working. Hence, from Sanne's statement we can see that providing individuals with *motivational support*, and creating a *shared understanding* why the change is necessary, seems to be of utmost importance.

Overall, we can state that different perceptions of changes in routines, determine individuals' reactions towards the change process, and thus regulate their individual unlearning experiences. Furthermore, considering these different reactions to the same change, we found that an individual's experience can depend heavily on the individual himself. This finding will be explored more in-depth throughout our analysis (see section 4.4).

4.3 New employees learn, long-standing employees unlearn

In light of our first research question, we found quite some different reactions when analyzing the data of both *new* and *long-standing* employees regarding their unlearning experience. We referred to employees as long-standing, when they have worked at Bosch for more than two years. One new employee mentioned:

This is my first job, and also I kind of just started in this job, so the system has been a lot of learning, more than unlearning so far. (Alice)

In other words, this new employee does not have many routines or even knowledge in place which need to be unlearned. Hence, Alice saw the system as something 'given' and is, therefore, more focusing on the *learning* process rather than unlearning. In reference to the relation between unlearning and learning, Sharma and Lenka's (2019) study supports this finding. Their research shows that when learning new and unrelated routines, prior unlearning is simply not needed.

Still, a new employee could also have previous work experience from another company. One long-standing employee looked back on her experiences when she first started at Bosch:

If you are a new person in the company, of course, you might already have previous experience, so you also got used to doing certain things that you might also be doing in your new positions. However, you are open now to start something else and to start from scratch. (Sanne)

This shows that new employees might still have to unlearn routines from their previous work experience. Nonetheless, because of the positive outlook towards their new job, they could be more open to unlearn and thus learn new processes and systems in relation to their role. According to Cegarra-Navarro, Eldridge and Martinez-Martinez (2010), organizations can still encourage their employees to leave their accustomed state and open up to new perceptions. This notion again highlights the need for *motivational support* for these new employees to unlearn.

On the contrary, long-standing employees had a different experience regarding the system change compared to new employees. Here, one interviewee reflected upon the change as follows:

I think everyone who was quite new to the company was using the system if they needed it. But the people who have been at the company for many years were not willing to adapt and use it. (Julia)

This statement shows that new employees were more willing to adapt and use the system, compared to long-standing employees. A reason for this assumption can be drawn from our data from two long-standing employees:

I think most of what I do is an organizational routine. ... I think whenever you have been there for some time, you start doing things in a certain way. (Jens)

When you have been working in a company for several years, you have the routine stuck already in your blood. And I noticed that people that worked in a company for many many years for them to unlearn is extremely hard and sometimes even impossible. (Mike)

Here, Jens and Mike demonstrated that the longer employees work at the company, the more routines they have developed. Additionally, these established routines would also be more embedded in the way they work. In line with the literature on unlearning, Fiol and O'Connor (2017b) emphasize this embeddedness of routines as a problematic aspect of the unlearning

process. These embedded routines can make it harder to unlearn them and, respectively, inhibit individuals from learning (Fiol & O'Connor, 2017b; Hislop, Bosua & Helms, 2018). Nonetheless, not all of these long-standing employees have been working in the same position with the same routines. This was shown in the following statement by Sarah:

I used quite some time to actually unlearn what I did in my previous job and learn what I need to do now because it [moving from sales to marketing] was quite fresh to me. I had to learn our business, what we are doing, what are our products, what are our processes. So, I think this whole year was more learning for me. (Sarah)

In this statement, Sarah demonstrates that, as a long-standing employee, she still needed to *unlearn* some of her previous ways of working, when she moved from the sales to the marketing department within the company. Furthermore, this statement again highlights the relation between unlearning and learning. In literature, Cepeda-Carrión et al. (2015) and Martins et al. (2017) therefore claim that organizations need to consider unlearning as a crucial preceding process of learning. Bob also expressed this close relationship:

Both things are in a bundle, you learn, you unlearn, and then you learn again. So I think it always happens together so-to-say, in light of how many years you have worked there. (Bob)

This underlines that the extent to which employees need to unlearn and learn and how they experience it seems to be closely related to the difference between new and long-standing employees and the degree of experience they bring. On the one hand, the employment length of employees determines how deeply embedded their routines are and thus how difficult it is for them to unlearn previous ways of working. On the other hand, the existence of prior work experience also influences the need to unlearn. Overall, we can conclude that *long-standing* employees focus more on the *unlearning* process, while most *new* employees are rather busy with *learning*.

4.4 Individuals at the core of the unlearning process

Although the unlearning process could happen consciously or unconsciously, researchers still believe that individuals can *influence* the unlearning process (Sinkula, 2002; Sukoco & Lee, 2017). In reference to answering our second research question, we were able to categorize three factors that could influence individual unlearning. These three factors encompass an individual's personality, mindset, and knowledge background.

4.4.1 Personality

First, from the analysis of our empirical data, we could see that interviewees' personalities either negatively or positively influenced their individual unlearning. To exemplify, two interviewees reflected upon personality traits that *negatively* influenced their unlearning process:

It definitely slowed down my own unlearning process, if I would have embraced it from the beginning, and just adjusted to the new system, it would have been easier and faster in the long run. I was just being stubborn and kept doing it my own way. That is just going to push you back. (Sanne)

No, I don't use the system, it is still relatively new. I am a bit conservative, I have to admit that when it comes to some things. I also have to work on myself when it comes to unlearning things. But the problem is if you think you have all the answers in the world it is very difficult for someone to teach you something new. That's the problem. (Jens)

While two other interviewees reflected upon personality traits that *positively* influenced their own unlearning:

I am a big fan of uniformity. We need to have one central guideline that says this is what is right, and this is what is wrong. And everybody needs to follow that. You can make some local adaptations that is fine. (Mike)

I'm not the kind of a guy who starts questioning from day one. I show trust and cooperate, and after a reasonable amount of time, I start criticizing and asking questions. (Bob)

These four statements show that individuals are at the core of the unlearning process, where their *personality* influences their unlearning. On the one hand, Sanne and Jens reflected upon their personality traits such as stubbornness and conservativeness, to explain their resistance to unlearn. On the other hand, Bob and Mike talked about their willingness to cooperate. Here, Mike highlighted that he promoted uniformity, and Bob stated that ‘asking questions from the start’ is simply not in his nature. In other words, in light of this change, these two individuals did not stand in the way of their own unlearning but instead promoted it. In general, this finding is conforming to the literature on unlearning, where researchers agree that individuals’ characteristics can either have a positive or negative effect on their own unlearning (Sinkula, 2002; Sukoco & Lee, 2017). Sinkula (2002) illustrates this line of thought by stating that some individuals are simply more willing to unlearn than others. These individuals can be identified as ‘change agents’, who are generally more focused and resolute, and notably able to motivate others (Sinkula, 2002). Hence, when mature organizations want to be successful in implementing changes and respectively want individuals to unlearn, it would be advantageous to hire people with personalities that demonstrate to be open to unlearning.

4.4.2 Mindset

Second, we found a common understanding amongst the majority of the interviewees that their unlearning process asked for a certain mindset. John expressed this notion as follows:

Unlearning is a concept of “this is something I've done forever, and now suddenly I have to change it, I have to think differently”, and that is in my opinion, the

primary challenge - the mindset, not so much the physical act of doing things differently. It is more for me the challenge of changing people's mindsets. (John)

Thus, it appears that in John's experience with unlearning, changing individuals' *mindsets* was the biggest challenge. In that sense, an individual's unlearning process is not about the action of unlearning a routine, but about adapting the mindset that precedes it. This was elaborated on by Bob:

It was very difficult to change my mindset when I came to Bosch. Because I fear that... I spent so many years in government, and the whole blame game is instituted in my mental being. So I'm still backing up all my emails and making sure I get all the approvals before I do anything. So yes, that is my mindset still. (Bob)

This statement demonstrates that even today, Bob still admits to the same mindset as the one he had at his previous employer. This highlights how hard it is for individuals to let go of a certain mindset, which in this example is the 'blame game' Bob has gotten used to. In that sense, his mindset still forces him to follow a particular routine, which might be hard to unlearn if necessary.

However, during our interviews, Alice showed us that she was able to change her mindset:

Now I am more like 'rolling with the punches'. Not being really strict but that I should be ready to change when it arises and to just keep trying, because it will make it easier and easier each time you try. (Alice)

This shows that by changing her mindset, Alice was able to cope with changes. In this example, when things did not go her way, she used to be more rigorous. Now, after questioning and changing her mindset, she is more open and willing to keep trying. This is in line with the unlearning theory. Here, Sinkula, Baker and Noordewier (1997) highlight the necessity that, as time passes, individuals need to question their so-called 'mental models'. According to Sinkula (2002), these include cognitive as well as behavioral elements, and to

unlearn these, individuals need to unlearn knowledge that has grown obsolete. This notion can be referred to as ‘cognitive adjustment’, which can be considered the base of any behavioral change (Nicely & Ghazali, 2017). Furthermore, this example demonstrates that once individuals are able to be more *open-minded*, they will be more open and willing to unlearn. This is conforming to existing unlearning literature, stating that being open-minded is a necessary mindset when talking about unlearning (Rushmer & Davies, 2004; Sinkula, Baker & Noordewier, 1997). Thus, even though individuals presumably are not able to change their personality, they could be able to change their mindset to be more open to unlearning.

4.4.3 Knowledge background

Third, it became apparent from our data that individuals influence their unlearning process through their knowledge background. One interviewee compared herself with her colleagues and reflected on the IT system change with regards to people’s backgrounds:

For me, I differ quite a lot compared to many of my colleagues. I am more used to learning new systems. I perhaps don’t get as frustrated as my colleagues, who do not have a digital background at all. Some of my colleagues have a very technical background, they are blue-collar workers. That is what they are used to, to work as a plumber or something, more hands-on work. They don’t have the same experience with this, so it will take more for them to understand this new system, then whenever you bring some experience with you. (Rose)

In other words, individuals' *knowledge background* forms the basis from which they unlearn and learn. With regards to, in this case, a change in an IT system, employees with a digital background have an advantage over employees with a more hands-on or technical background. Thus, someone’s prior knowledge or experience could influence the unlearning process by providing an advantage or disadvantage in comparison to others. In reference to the literature on organizational learning, this confirms the tension between new learning and using what has already been learned (Cegarra-Navarro, Eldridge & Wensley, 2014; Cepeda-Carrión et al., 2015; Sinkula, 2002; Zahra & George, 2002).

This difference in individuals' knowledge backgrounds also appeared to be dependent on their generation. Jens highlighted this notion by stating:

People were saying “well boomers have been in the job market for 30-40 years and now things are changing, we're going extremely digital, we are going towards social media, etc. and how will we teach these people a new way of working” and I'll say for most of them they try really hard and they succeed, but some of them don't. (Jens)

In this statement, Jens demonstrated that baby boomers are generally missing necessary prior knowledge when it comes to digitalization. In contrast to millennials, generation Y or Z, these baby boomers are simply not used to working with digital systems and platforms from a young age. This lack of knowledge might result in a harder individual unlearning and learning process. As learning theorists Crossan, Lane and White (1999) state, the first learning process individuals go through is ‘intuiting’, involving a preconscious recognition of a pattern. In this case, baby boomers would have had a hard time recognizing a certain pattern. For this generation, learning an IT system is simply *not intuitive*. This could lead to a more challenging experience for them, involving uncertainty and instability (Palmer, Dunford & Buchanan, 2017). Hence, in order to teach this generation how to work in a digital world, it remains necessary to provide support in unlearning how things used to be.

In light of Crossan, Lane and White's (1999) organizational learning framework, one interviewee elaborated on the notion of routines being intuitive:

The best thing is definitely whenever a new routine is intuitive so that you don't feel as if you have to learn it that much. Like it just goes naturally. But of course, that is difficult. But whenever a system is intuitive, that is really good, right? That is the goal. (Rose)

Hence, as Rose highlighted in this statement, when a new system is *intuitive* for someone to learn, the process of unlearning previous routines would feel natural. This finding again closely relates to Rushmer and Davies' (2004) type of unlearning as fading, where individual

unlearning happens *unconsciously* (De Holan & Phillips, 2004). Nonetheless, this contrasts the dominant literature, in the sense that an intentional change triggers a *conscious* unlearning process (Rushmer & Davies, 2004; De Holan & Phillips, 2004). Hence, in light of our research findings, we can state that once the *learning* process is intuitive, the individual unlearning process will then occur unconsciously. On the contrary, when a new routine is *not intuitive*, individuals would find it harder to interpret the routine, integrate it and institutionalize it in their day-to-day work practices (Crossan, Lane & White, 1999). In this regard, individuals would need to *consciously* focus on their unlearning process to give up their previous routines and learn new ones (Rushmer & Davies, 2004). Overall, we can conclude that to understand *unlearning*, the focus needs to be on the individual *learning* that follows it, and whether this learning will be intuitive or not. This will in return help to solve the mystery around the individual unlearning process.

4.5 It is all about motivational support

Our first research question was aimed at exploring the experiences of individuals in their unlearning process. Here, the strong need to provide individuals with *motivational support* arose from our fieldwork. In light of our second research question, we wanted to investigate how this support can influence individuals' unlearning process. Here, our findings showed the strong influence *managers* have on their employees' unlearning. This is in line with the study by Klammer, Grisold & Gueldenberg (2019), stating the need for managers to help individuals in their unlearning activities. Additionally, Matsuo (2017) emphasizes the direct influence of managers' learning activities on individuals' learning orientation. In this regard, we could identify that in mature hierarchical organizations, like Bosch, the many levels in between top management and employees increases the difficulty for managers to sufficiently support their subordinates. This was also highlighted by Tom:

Even though top management is communicating something within a huge organization like Bosch, then there is just such a long way from top management to all the middle managers. For it to change throughout the organization, all the way to different small departments in different countries, it takes a lot. You really

need to make sure that every manager is on board with this, and it is top priority.

(Tom)

This demonstrates that the hierarchical levels between top management and employees, as well as the physical distance between departments and locations, make it harder to get a message across. In that sense, in a mature hierarchical organization, the sole engagement of the top management in a change process is not enough. It has become apparent that our interviewees see the strong need that managers from all levels act as ambassadors for the change and thus encourage individuals in their unlearning. In this sense, the most influential actors seemed to be top management and employees' closest managers.

First, our interviewees underpinned the importance of the *top management* to actively engage with the change. This was expressed by:

I always say tone from the top matters. If they set the correct tone, it makes everything easier. What is leadership? It is about setting an example. And we see it from the board of management especially, that's why I say tone from the top. We have our CEO, who always talks about respectful life and respectful nature. That when we produce something, it has to be with the most respect for natural resources and human vibes etc. And I do have a lot of respect for that. (Bob)

This statement underlines that a successful change process requires the top management to actively engage in it. In the case of Bosch, the top management refers to the highest management level at the headquarter in Germany. Individuals often look up to the top management and see them as role models within the organization. Hence, setting an example that individuals can follow is a crucial aspect of ensuring a smooth process of individual unlearning. In the case of Bosch, the top management must live the claimed 'learning' values themselves for these to be embedded throughout the organization (We Are Bosch, 2020). Moreover, the so-called 'tone from the top' can strongly influence individuals and their experience of the unlearning process.

Second, besides the support of the top management, the support of individuals' *closest managers* was found to be of utmost importance. This was highlighted through:

But for it to really become a part of my organizational routine, then I need my closest manager to really emphasize that this is something that I should really prioritize because otherwise, I am afraid to, you know. My manager should promote that "this will be better and you got to put in the effort". Otherwise, it will never be a success. (Rose)

My manager has to promote it and emphasize it and actually sell it. Perhaps also be realistic and say, "we also know that this will take some time, we understand as managers, that within that period of time, perhaps some other tasks will suffer a bit, but it will be worth it". (Sanne)

These statements demonstrate that individuals need the support of their closest manager to discard their old routine and engage in their unlearning process. The individuals need to feel that discarding their old way of working is accepted and encouraged. This emphasizes the importance of the closest managers to be onboard and to actively support their employees with their unlearning activities.

In general, our empirical data showed three ways through which management can influence individuals in their unlearning process. First, the necessity of creating a *shared understanding* was raised by several interviewees. For example:

So we need to understand that if these guys are sitting together in Germany [HQ], they are not just doing something out of the blue because they think it could be fun to make, they are doing it because there are some relevant legislations coming from parliaments all over the world. (Bob)

Here, Bob demonstrated that externally imposed changes, like the system change, are not automatically accompanied by a common sense of urgency but require the active creation of a shared understanding. In line with the theory, this shows the relevance of a shared

understanding and sense of urgency to ensure that individuals are open to unlearning and thus to change (Klammer, Grisold & Gueldenberg, 2019; Nicely & Ghazali, 2017). In this context, most interesting was the fact that this motivational support is especially important when changes are externally initiated by the organization and the new routines imposed on individuals. These changes represent a challenge for individuals and thus a critical factor for their unlearning activities. In this sense, it is of utmost importance that organizations actively promote a shared understanding of why the change is needed and therefore create a common sense of urgency.

Second, in addition to the creation of a shared understanding, our fieldwork revealed that individuals' *involvement* in a change process is an essential factor to promote the change and thus encourage individual unlearning. This was emphasized by John and Alice:

[The involvement in the process was] quite well, I think, we were involved in this change for more than a year before it was actually implemented. With training, with information, with monthly Skype calls explaining how well it went with the implementation of the system. We were able to come with inputs, and they were taking them seriously, it seems, and they adjusted things accordingly if there was anything we realized that was not working with the new one. A huge implementation phase before it became valid. (John)

And in order to eliminate it [possible resistance], they were trying to involve everyone as much as possible in the decision making process. They were talking to every department affected, and asking "what do you think is the best way to do". So, they were kind of trying to make us feel as if we were the main part of the decision-making process. (Alice)

Both John and Alice emphasized how actively they have been involved in the process of changing the IT system. The management not only provided training and information for a long time before the system was actually implemented, but they also took individuals' input seriously and thus enabled them to take an active part in the process. Here, Alice acknowledged that this is crucial in order to minimize individual resistance and thus create

commitment to the change. This will, in the end, also lead to individuals being more open to unlearn and change. Hence, our findings correspond to the change literature in the sense that involving individuals in the process can be of great benefit to increase individuals *engagement* (Palmer, Dunford & Buchanan, 2017). In other words, involved individuals have the feeling that they are a valuable part of the change process and that the change is strongly driven by themselves. This reinforces their feeling that discarding their old routines, unlearning their previous way of working, and learning to work with the new system is mostly initiated by themselves, which according to our findings, increases their engagement and openness.

Third, according to Becker (2010), individuals need to see *clear benefits* for themselves to be willing to invest efforts in their unlearning activities. This again underlines the importance of focusing on the individual when implementing change. This factor also emerged from our empirical research, which was expressed by Tom and John:

That is a huge part of a successful implementation that you have to make sure that the employees feel certain that the output will be great for them. If they don't feel that they don't want to spend the time, then the uncertainty takes up too much.
(Tom)

With one part of the system, I understand why they are changing it, I can see clear benefits, it makes sense, we have been involved, we had an eye on the projects. With the other part, I don't understand why, it makes things slower, and I am not being told why we need to do this, but we just need to do it. (John)

As Tom and John pointed out, the benefits of a change need to be sufficiently promoted to successfully implement a change. This enables individuals to understand why change is needed. In other words, the necessity to see the clear benefits of unlearning their previous way of working and changing to the new process must be visible to the individual. Here, our interviewees did not emphasize the need to communicate a realistic image of the change as the change literature suggests (Schneider & Goldwasser, 1998). In contrast, our results show a clear tendency that the focus is not on communicating challenges, but on how the change benefits the individual. According to Becker (2010), in the end, this will encourage

individuals to engage in their unlearning. Here, our results could imply that individuals are well aware of the challenges within a change process and that therefore the promotion of an optimized vision of the future is needed to support individuals in their unlearning activities.

Moreover, John also stated that he did not understand why certain parts of the system have been changed. Even though, in this case, this lack of understanding did not have an immediate effect, it might still have hindered John in his unlearning. Hence, this could severely impact his unlearning process, as well as the overall change process. In this respect, we can conclude that changes that involve clear benefits for individuals increase their openness to unlearn. At the same time, this strengthens the challenge for changes that are necessary but make the working life of individuals harder. In this case, the creation of a shared understanding is even more important to encourage individuals to invest efforts in their unlearning activities. In other words, it is crucial to engage individuals in the change process.

4.6 Individuals need “to feel at home” to unlearn

Adding to our previous chapter about how motivational support can help individuals in their unlearning processes, researchers also recognize that an organizational *culture* has a substantial impact on individuals’ and their unlearning (Hislop, Bosua & Helms, 2018; Nicely & Ghazali, 2017; Sinkula, Baker & Noordewier, 1997). In line with our second research question, the organizational *context* in which individuals are situated came to light as a significant factor regarding individual unlearning. This was particularly interesting for our study, as Bosch claims to be a ‘learning organization’ that actively promotes learning and development throughout the organization (We Are Bosch, 2020). This would imply that the accompanied culture supports learning and thus provides a rich context for individuals to unlearn, relearn, and learn.

When asking our interviewees about the culture at Bosch, the relevance of cultural aspects for the individual unlearning process was highlighted by one of our interviewees underlining the close link between *routines* and *culture*:

I think routines are very much linked to the culture. Looking back to when I first started, and whenever you are starting a new job, a big part of it is really to get into the culture, to learn the norms and values. Either you are a perfect match, or you try to adapt, or you go somewhere else. But of course that, in a very huge way, affects the routines within the organization. (John)

In other words, trying to fit into a culture and thus adapting to the values and norms within an organization has a substantial impact on individuals. As John pointed out, the fact that culture has a strong influence on individuals affects the routines of individuals as well. This close connection is constituted by the interplay between individuals' behavior and organizational routines. Hence, this underlines that a supportive culture is required for the individual unlearning process to take place. When talking about these cultural effects, researchers refer to the so-called 'unlearning context' (Akgün et al., 2007; Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012; Ruiz, Caro & Cegarra-Navarro, 2015; Wang, Qi & Zhao, 2019). In this context, the reflection of existing routines is promoted, old routines are dismantled, and the path to new routines is opened (Ruiz, Caro & Cegarra-Navarro, 2015; Wensley & Navarro, 2015). Even though Bosch claims to promote a context of learning and consequently unlearning when we asked our respondents for their opinion of the organizational culture, their perceptions were divided (We Are Bosch, 2020). They either confirmed the positive culture promoted by the organization or regarded the culture as negative and obstructive.

Some interviewees expressed their *positive* perception of the Bosch culture:

I am experiencing a company that is willing to go very far in transparency and willing to go very far in trusting the employees to make the right decisions. And I am a bit surprised because all my life I was told that private industry was just about people being greedy and about money and selfish people etc. and that is not my experience in Bosch. I am experiencing a lot of good people with really big hearts trying to make a difference. I actually feel very much at home here. (Bob)

Thus, for some, the culture of Bosch is valued because of its focus on transparency and trust. It shows that individuals feel a strong sense of community, where they all share the same mindset to work together to make a difference in the world. Here, Bob also highlighted that he feels very much 'at home'. This demonstrates that Bob compared his comfortable home-environment with the transparent and trustworthy culture he perceives at Bosch.

In line with this positive perception of the culture at Bosch, Sanne again emphasized the provision of support:

It [organizational culture] did help [to change my routines] because you enjoy a lot of support. The thing is as long as you come up with something intelligent and sensible, you have all the support in the world. (Sanne)

Here, Sanne emphasized that the *supportive culture* at Bosch helps her to unlearn and discard old routines. This corresponds to theory in the sense that the culture serves as a significant driver for unlearning (Nicely & Ghazali, 2017). This culture encourages individuals to challenge existing routines and thus enables the organization to reorient its norms, values, and behavior according to the environment (Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012; Sinkula, 2002). Promoting this open-mindedness induces the individual to be critical of possible mistakes and false assumptions and, thus, enhances unlearning (Azmi, 2008). Moreover, this culture is not only present when individuals act correctly, but also when individuals possibly make mistakes, for example:

And here is the best part: If you fuck up and it happens, then nobody screams at you. They ask you, did you learn from it? You say yes, and then you move along. Just when you make a mistake doesn't mean you should be crucified. Learn and grow - evolve. (Mike)

In other words, the culture at Bosch is perceived as a culture with *tolerance for errors*. In this culture, mistakes do not lead to blame being placed upon individuals but rather to learn from mistakes and, thus, personal and organizational growth. This is in line with the theoretical perspective that an error-forgiving culture provides individuals with a strong feeling of

security and therefore increases their openness to unlearn (Cegarra-Navarro, Eldridge & Martinez-Martinez, 2010; Klammer, Grisold & Gueldenberg, 2019). This underlines the culture of learning and development that Bosch strives to embody.

In contrast, some of our interviewees also showed *negative* perceptions of the organization's culture. For instance, this was highlighted through:

Whenever you have to implement something, it is very difficult in a conservative organization like Bosch. It is very conservative because it is still rather focused on "you have to work these hours, you have to do this and this", it just shows those very basic things of "how do you work". (Alice)

Here, Bosch, as a mature organization, is perceived as a company heavily concentrating on how its employees do their work. This points out a potential tendency towards control rather than trust. This statement is supported by two other interviewees:

I also realized that, for me, Bosch may not be the right company to work for. They are way too structured and hierarchical for me. You get the instructions about what you should do, and that's then what you have to do. When you come with new things, they say you have to do it 'the Bosch way'. They are just not flexible. (Julia)

The culture at Bosch, in my opinion, is not that you have a say in so much. Overall I do think that we are merely being told what to do. (John)

These statements show that the culture at Bosch is often perceived as very conservative, structured, and hierarchical. Here, the individual is more likely to be the recipient of instructions than an independent thinker. This can have a negative influence on individuals and their unlearning process (Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012; Ruiz, Caro & Cegarra-Navarro, 2015).

Considering the positive and negative perceptions of the Bosch culture, our empirical research confirms the importance of a supportive culture and an unlearning context to encourage individuals to engage in their unlearning. An unlearning context supports unlearning, relearning, and learning by providing the basis to foster the replacement of old knowledge and to develop new knowledge (Cegarra-Navarro, Sánchez-Vidal & Cegarra-Leiva, 2016; Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012). Consequently, this will enhance a mature organization's exploration and exploitation activities and thus increase its flexibility to respond to the ever-changing environment (Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012; Wang, Qi & Zhao, 2019). However, our findings also show that when studying the culture of an organization, we cannot solely look at it from a macro perspective. The different perceptions of our interviewees clearly show how important it is to take the micro perspective into account when examining the culture and its impact on individual unlearning.

In general, the provision of an unlearning context and, therefore, a supportive culture will enable Bosch to embrace continuous learning within the organization (Rupčić, 2019). Hence, Bosch would be able to become a so-called 'learning organization' as they already claim to be (Hislop, Bosua & Helms, 2018). The positive benefits of mutual support and dialogue, which is present in a learning organization, also emerged from our fieldwork (Rupčić, 2019). This was expressed by Sanne:

It affects the way in which I am passing forward, having conversations with my colleagues. Because when I am positively affected by it [the system change], I talk to them, and I affect them and so on and so on. So yes, it does have an effect.
(Sanne)

In this case, Sanne became an 'ambassador' of the system change and inspired others to start using it as well and therefore unlearn their previous way of working. This underlines the positive effect of a *learning organization* on individuals concerning their unlearning activities.

4.7 Reflecting on our findings

In general, we found there to be no consensus around our interviewees' understanding of the unlearning process. Here, we determined a difference in experience when our interviewees either unlearned *consciously* or *unconsciously*. Even though the IT system change was an externally imposed initiative, some interviewees did not experience a conscious unlearning process. This finding contrasted our initial understanding of unlearning as *wiping*, where an intentional change initiative is followed by a conscious unlearning process (Rushmer & Davies, 2004). Hence, this diverged from what we expected and, therefore, creates a mystery around the concept of individual unlearning (Alvesson & Sandberg, 2013). Moreover, our interviewees talked about the concepts of *unlearning* and *change* interchangeably. This revealed the difficulty to separate these two concepts, as well as to determine which concept follows the other. This further intensified the mystery around individual unlearning. Still, the majority of our interviewees recognized the importance of a prerequisite to change, where they need to discard their previous way of working. Therefore, these findings made us look for elements that could better shape this *prerequisite*.

Our first empirical finding, answering our first research question, showed two different forms in which our interviewees *experienced* the system change and how this affected their routines. Primarily, the initial reaction from most interviewees was found to be *negative*, portraying feelings of frustration. This finding highlighted a considerable distinction from our researched change literature. In contrast to the classical change curve by Schneider and Goldwasser (1998), our interviewees were immediately pushed into the so-called 'valley of despair', where they realized that this change could mean pain and loss for them. Yet, from some of the *positive* reactions, we found that the system change also affected some individuals' routines in a positive sense. These reactions showed that interviewees were more willing to adhere to the new system when it made their working life easier. In that regard, individuals' outlook towards the system change appeared to be dependent on the way it might have affected their routines. In return, this was found to form their reactions towards the specific change process and thus regulate their individual unlearning experiences. This again showed that an

individual's experience heavily depends on the individual himself, which will further be elaborated on in our third empirical finding.

Second, there also appeared to be a clear difference in the unlearning *experience* between new and long-standing employees. In general, employees who worked at Bosch for less than two years had a lower need to unlearn. This was in line with our theoretical pre-understanding that unlearning is sometimes not needed when learning something new (Sharma & Lenka, 2019). Furthermore, these *new employees* were found to be more willing and open to change their previous way of working (from a different department or organization). Contrarily, *long-standing employees* were found to be less willing to unlearn and adapt to the new system. They simply have more routines in place, which are also more deeply embedded in the way they work. This deep anchoring of routines makes it harder for long-standing employees to unlearn routines compared to new employees. Overall, this finding showed that the employment length of our interviewees determined how deeply embedded their routines are and, thus, how difficult it was for them to unlearn their previous ways of working. Therefore, again, emphasizing the unlearning process to be a challenge for mature organizations and their employees.

Our third empirical finding, answering our second research question, demonstrated three factors that could *influence* individuals' unlearning process. The first factor we identified from our data is through individuals' *personality*, which either negatively or positively influences their unlearning. This finding is in line with our reviewed literature, wherein Sinkula (2002) emphasizes that personal characteristics can affect individuals' unlearning process. In other words, some individuals are more willing to unlearn than others. Hence, hiring so-called 'change agents', who already portray these characteristics from the start, is highly advantageous for mature organizations. The second factor that influences individual unlearning was found to be through individuals' *mindset*. With regard to this notion, one of the biggest challenges was highlighted to be changing individuals' negative mindsets. From our empirical data, only one interviewee seemed to be able to question her mindset. Conforming to the unlearning theory, by questioning her so-called 'mental models', she was able to better deal with changes (Bonchek, 2016; Nicely & Ghazali, 2017; Sinkula, 2002). This change of mindset made her more open and willing to unlearn. Thus, being *open-minded*

is a necessary mindset for individuals to influence their unlearning process in a positive way. In that sense, the unlearning process is more about changing an individual's mindset, rather than the action of unlearning the routine itself. The third factor we found, influencing individuals' unlearning process, was through individuals' *knowledge background*. On the one hand, individuals without a digital background were having a hard time recognizing a so-called 'preconscious pattern' with regards to the new IT system. In light of our researched learning theory, we found this to be related to the first learning process individuals go through, namely 'intuiting' (Crossan, Lane & White, 1999). For these individuals, an IT system is *not intuitive*, which made it harder for them to interpret the system and its accompanying routines. As a result, their experience was associated with feelings of uncertainty. In this regard, these individuals would need to *consciously* focus on their unlearning process, to give up their previous routines, and develop new ones. This finding is confirming our initial understanding of unlearning as *wiping*, as well as *organizational unlearning* (De Holan & Phillips, 2004; Rushmer & Davies, 2004). On the other hand, as one of our interviewees explained, whenever this new IT system would be *intuitive* for someone to learn, the process of unlearning individual routines would feel natural and thus happen *unconsciously*. In reference to our reviewed literature, this finding closely relates to the type of unlearning as *fading*, as well as *organizational forgetting* (De Holan & Phillips, 2004; Rushmer & Davies, 2004). Hence, this contrasted our original understanding that unlearning routines would *always* be a conscious process when it follows an intentional change initiative. In light of our research findings, we can state that once the learning process is *intuitive*, individual unlearning happens *unconsciously*. Therefore, to solve the mystery around individual unlearning, the focus needs to be on an individual's *learning* that follows it, and whether this learning will be intuitive or not.

Fourth, answering our second research question, when further exploring what *influences* individual unlearning of routines, the aspect of *motivational support* arose from our findings. In this regard, when focusing on what kind of support individuals need to unlearn their routines, motivational support from *management* was determined to be most influential in practice, as well as most dominant in theory (Klammer, Grisold & Gueldenberg, 2019). In a mature hierarchical organization like Bosch, our interviewees highlighted the strong need that managers from all levels need to act as ambassadors for the system change. This will show

individuals the need to discard their routines, which respectively encourages them in their unlearning. Especially *top management* and the interviewees' *closest managers* were identified as the most influential actors. In light of this finding, we identified three ways through which management can influence individuals in their unlearning process. Here, we can see a clear connection between the existing change literature. Firstly, management needs to actively create a *shared understanding* amongst individuals. The system change was imposed on our interviewees by the headquarters and therefore they were forced to adjust to it. This highlights the necessity of the right communication mechanisms and training to create a shared understanding. Otherwise, it would lead to our interviewees resisting to unlearn their routines. Secondly, management needs to *involve* individuals in the change process. We found that when interviewees were involved in the change process, they felt valued. As a result, this increased their openness, as well as commitment towards and *engagement* in the change. Thirdly, management needs to show *clear benefits* of the initiated change. Once our interviewees could see clear benefits for themselves, they were more willing to invest in their unlearning process. Nonetheless, for some interviewees, the new system did not provide clear benefits, as it made their working life harder. These individuals were found to especially require *motivational support* to still engage in the change, and thus unlearn their routines.

Our fifth and final finding, further answering our second research question, showed that the organizational *context* influences individuals in their unlearning. This context was found to be highly dependent upon the organizational culture that is in place. Our interviewees expressed that their unlearning experience was influenced by either a negative or positive perception of the organizational culture. In this sense, a *controlling* culture was perceived as negatively influencing their unlearning process and a *supportive* culture as positively influencing it. Here, a supportive culture can be linked to a so-called 'unlearning context', which we identified from our literature review (Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012; Ruiz, Caro & Cegarra-Navarro, 2015; Wang, Qi & Zhao, 2019; Wensley & Navarro, 2015). In this context, the reflection on existing routines is promoted, old routines are dismantled and the path to new routines is opened. This context was found to be needed to enhance a mature organization's exploration and exploitation activities and ensure the ability to respond to its environment.

5. Conclusion

In this final chapter, we will draw conclusions from our empirical study. In line with the aim of our study, we will describe our empirical findings, consisting of five steps of how to solve the mystery around individual unlearning. Here, following our two research questions, we will focus on how our interviewees experienced unlearning their previous way of working and what factors could influence individuals in this process. This will, in return, help us to illustrate our theoretical contribution. After that, we will provide practitioners with an acronym on how to prepare their employees for future changes in routine-based activities. Finally, based on our study's limitations, we will provide suggestions for future research.

5.1 Empirical Findings

With our study, we aimed to gain a deeper understanding of the individual unlearning process in relation to organizational routines. In this regard, we selected Bosch as the site of our case study, representing a mature organization. Here, organizational routines were found to be deeply embedded and likely created inertia. In this context, a recent IT system change formed the basis of our qualitative study to understand individuals' perceptions and actions in relation to unlearning organizational routines.

In general, we found there to be no consensus around the individual unlearning process. At Bosch, individuals either perceived it to be a *conscious* or *unconscious* process, which profoundly influenced their experience of their actual unlearning. Furthermore, our interviewees referred to the concepts of *unlearning* and *change* interchangeably, which further intensified the mystery around individual unlearning. Nonetheless, it emerged from our findings that individuals still need to adapt before they are able to change. Therefore, in order to solve this mystery, we suggest to better shape this *adaptation process*. This can be achieved in five steps. First, as personal characteristics heavily influence individuals' unlearning process, mature organizations must hire people with personalities that demonstrate

to be *open-minded* towards unlearning and change. Second, individuals' *knowledge background* has to be taken into account, in line with their length of employment (new versus long-standing), as this was also found to determine their experience and thus influence their unlearning process. Third, in order to understand individuals' unlearning experiences and help individuals in this process, mature organizations need to distinguish between *two types of individual learning*. The moment that learning a new routine is *intuitive* for the individual, the unlearning experience of their old routine will be an *unconscious* process. When learning a new routine is *not intuitive*, the unlearning experience of their previous routine will be a *conscious* process for the individual. Fourth, in light of this conscious process, *management*, especially top management and the closest manager, must assist individuals with *motivational support*. Based on our empirical study, we understand that management can achieve this in three ways: (1) by actively creating a *shared understanding* amongst individuals, (2) by *involving* individuals in the change process, and (3) by showing *clear benefits* of the initiated change. This way, management positively influences an individual's outlook towards the change initiative, as well as their willingness to unlearn. As a fifth step, which is a more general connotation, mature organizations need to establish a true *unlearning context*, where reflection on existing routines is encouraged. The foundation of this unlearning context must be built on a supportive culture, consisting of mutual support and dialogue. Overall, these five steps will help to better shape individuals' adaptation process to be able to change. This will help researchers, as well as practitioners, to solve the mystery around the individual unlearning process.

5.2 Theoretical Contribution

Individuals who are able to unlearn their deeply embedded routines, play a crucial role for mature organizations to remain ambidextrous (Hedberg, 1981; Wang, Qi & Zhao, 2019; De Holan & Phillips, 2004; Hislop et al., 2014; Jones & Craven, 2001). Nonetheless, most existing studies on unlearning have solely focused on organizational unlearning, without considering a focus on the individual (Fiol & O'Connor, 2017b; Hislop et al., 2014). These studies are thus neglecting the micro perspective. When focusing on unlearning studies taking a macro perspective, De Holan and Phillips (2004) define organizational unlearning as a

individual's personality, mindset, and knowledge background form the basis from which they unlearn and learn. In this regard, we can especially contribute to unlearning literature by showing that an individual's unlearning process is not about the *action of unlearning* a routine itself, but about *adapting the mindset* that precedes it. Additionally, top management and employees' closest managers were recognized for being highly influential. In unlearning, and respectively learning activities, *management* must assist individuals with *motivational support* when initiating a change that affects their routines. In this sense, our study revealed that individuals require the same motivational support in their unlearning activities as often highlighted in organizational change literature. Hence, we contribute to unlearning, change, and learning literature in highlighting its strong interrelation. This can help researchers to develop a deeper understanding of how individuals can unlearn in times of organizational change and how these individuals can be supported in their unlearning, relearning and learning activities.

5.3 Practical Implications

From our study, we have learned that the label *unlearning* is causing confusion in theory as well as practice. As Rose stated in her interview:

*Unlearning? So like not learning things?
I don't think that is something that I do [...] (Rose)*

This quote made us realize that, despite the steps discussed in our empirical findings, to better shape a prerequisite to change, the label unlearning will remain confusing in practice. Nonetheless, researchers and practitioners agree that the *ability to unlearn* remains of utmost importance for individuals to *change*. Therefore, we recommend to re-label the term unlearning, to move away from the confusion, but still show the necessity for individuals to brace themselves for the impact of organizational change. Additionally, our study highlighted the important role that *management* plays in an individual's adaptation process to change. Hence, the new label should reflect some kind of 'checklist' for management, to literally check individuals' readiness to change.

In light of our research findings, when coming up with a new label, we focused on the following five aspects: (1) hiring open-minded individuals, (2) providing employees with assistance, (3) involving employees in the change process to increase their engagement, (4) showing clear benefits of the initiated change, and (5) establishing a true unlearning context. As there is no existing verb that corresponds to these five points, we decided to create an acronym to ease an individual's understanding of this new label (Mack, 2018). According to Mack (2018), an “acronym is the name for a word made from the first letters of each word in a series of words” (p.16), where the abbreviation should be familiar. When playing around with our five aspects, we came up with the acronym BRACE. Here, ‘B’ stands for Benefits of the initiated change, ‘R’ for Resourceful individuals, who show to be open-minded, ‘A’ for Assistance that should be provided, ‘C’ for Context supporting unlearning and ‘E’ for Engagement of employees in the change process. Here, the verb ‘to brace’ is also an existing verb, which is, for example, used in an airplane, where passengers need ‘to brace for impact’ (Civil Aviation Safety Authority, 2018). When there is heavy turbulence, or the plane is about to crash, passengers need to take the ‘brace position’ to secure their safety. A checklist of how to take this position can be found in the passengers’ seat pocket. Therefore, the acronym BRACE is referring to something familiar, namely following a checklist to brace for impact. All in all, we believe changing the label *unlearning* into *bracing* would truly help to put a stop to the confusion around the individual unlearning process. Preparing employees to be ready for the impact of organizational change will be of explicit value for mature organizations, as it ensures their strategic flexibility.

5.4 Future Research

Based on the findings and limitations of our study we want to provide suggestions for future research. Our main limitations have already been outlined in our methodology chapter, mainly regarding the limited generalizability of our study. On the one hand, we were able to perform our research in an organizational context adding a new angle to the existing studies, which were based on similar contexts, namely Asian countries or health care settings (Hislop et al., 2014). On the other hand, as our research is based on a single case study approach, our findings cannot simply be generalized. In this regard, also the limited amount of interviews

and the short time-frame needs to be taken into account. However, by drawing on a qualitative method, we generally do not intend to provide generalizability across contexts but rather deeper explore our phenomenon of individual unlearning (Bryman, 2016). Nonetheless, our phenomenon and its accompanied mystery portray an omnipresent challenge for researchers as well as practitioners. Thus, our findings represent a compelling basis for future investigation.

One highly interesting field for future research encompasses the difference between various industries or types of mature organizations. Our empirical material also indicated that the openness of individuals to unlearn might depend on the industry in which they work. In general, the need for mature organizations to unlearn is determined by the changing nature of their industry. When individuals work in industries where they are used to unlearning on a continuous basis, they might be more open to discard old routines and learn new ones. In contrast, industries based on continuity could be the reason for the tendency of the individual to prefer stability and thus have an aversion towards unlearning. Hence, we recommend to further examine this interrelation with a qualitative longitudinal study, comparing several industries.

A second recommendation for future research lies within the cultural influence on individuals and thus their unlearning activities. According to our findings, to examine the impact a culture exerts on an individual's unlearning, a focus on the cultural mixture of the organizational culture and the individual's national culture is needed. The national culture seems to be deeply rooted within the individual and thus could significantly influence their way of working. This is also supported by Zahra, Abdelgawad and Tsang (2011), stressing the importance of considering both national and organizational cultures and its interrelation as this could have a significant effect on unlearning. Here, individuals' national culture determines how they experience an organizational culture. What mostly came to light in our fieldwork was the German versus the Danish culture, where Germans prefer to have more control and structures in place, and Danes value their freedom. Hence, exploring this mixture between national and organizational culture and its influence on individuals and their unlearning processes represent a highly interesting area for future research.

Third, it emerged from our findings that individuals recognize the strong need for management to provide support. Here, our findings, as well as the existing theory, acknowledges the strong influence managers have on their individuals and respectively their unlearning activities. In this regard, we propose to further investigate the influence of managers and how they can BRACE their employees for the impact of organizational change through qualitative longitudinal research. This could then add new insights to existing studies on managers' influence, like the studies by Klammer, Grisold and Gueldenberg (2019) or Matsuo (2017). Here, we recommend examining both managers' perspectives and subordinates' perceptions as the bilateral manager-employee relationship portrays a particularly interesting research area.

Epilogue

Imagine having to work from home every working day of the week ... For some people, this would be unimaginable. This would require the development of entirely new routines. Instead of the customary coffee with colleagues, there would be a virtual start of the day ...

Yet, this unimaginable scenario has become reality. The COVID-19 crisis has forced almost the entire world to work from home. This once again portrays that an external trigger can oblige us as individuals to unlearn our previous routines. This recent development, affecting the way we work, significantly increases the relevance of our study on ‘learning to unlearn’ and makes it highly valuable for mature organizations this day. Overall, with our study’s contribution, we trust individuals can brace themselves for any future changes in routines to come.

Lastly, as described in our prologue, our own work experience in mature organizations stimulated our interest to explore individuals’ unlearning of old routines. When looking back at our study, we are now better able to embrace organizational change and assist colleagues in bracing for impact.

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Appendix

Interviewee	Length of employment	Department
John	> 5 years	HR
Alice	< 1 year	HR
Bob	> 3 years	Legal
Julia	< 1 year	HR
Sarah	> 5 years	Marketing
Mike	> 5 years	HR
Rose	> 2 years	Marketing
Tom	> 4 years	Communications
Sanne	> 7 years	Sales
Jens	> 10 years	Engineering