Concertive Bureaucracy in Knowledge-Intensive Work:

*Loosening the Iron Cage*

**Author:**
Maria Wetterberg
Erik Schultz

**Supervisor:**
Professor Tony Huzzard
Abstract

Title: Concertive Bureaucracy in Knowledge-Intensive Work: Loosening the Iron Cage

Submission Date: 22nd May 2013

Course: FEKN90 Business Administration - Degree Project Master of Science in Business and Economics

Authors: Maria Wetterberg & Erik Schultz

Supervisor: Professor Tony Huzzard (PhD), Lund University, Sweden

Keywords: Concertive Bureaucracy, Bureaucratic Control, Knowledge-Intensive Work, Emancipation

Thesis Purpose: The main purpose of our thesis is to provide a worker perspective on bureaucratic control in a knowledge-intensive context.

Methodology (Empirical Foundation): Our research has been carried out from an interpretive perspective. The empirical material has been constructed through a qualitative case study performed within a knowledge-intensive work context.

Theoretical Perspective: Whereas existing research on control often takes on a managerial perspective, we have explored bureaucratic control from a worker perspective. In addition, we have investigated the paradox of bureaucratic control in a knowledge-intensive context.

Research Question: How do knowledge-workers at Visualize experience and react to bureaucratic control? and How does Visualize manage to combine the perceived benefits of bureaucratic control with the problem-solving capacity of knowledge-intensive work.

Basic Findings: The workers at Visualize had an overall positive perception of the implemented bureaucratic framework. The implemented processes were valued for their provided clarification of expectations. The workers are involved in the creation and reviewing of the processes, and are also allowed to deviate from the processes when they deem it necessary.

Conclusion: The workers at Visualize have experienced the bureaucratic framework as emancipating. The clarity provided by the work-descriptions serves to relieve them of work-related anxiety and stress. Visualize has been able to combine these benefits of bureaucracy with a maintained knowledge-intensive capacity, by allowing the employees to jointly construct the bureaucratic framework and by empowering them to decide to deviate from the processes when needed.
Acknowledgements

First and foremost we want to thank our supervisor, Tony, for valuable feedback and encouragement throughout the process of writing this thesis.

We also want to show our deep appreciation to the people at Visualize who have let us perform our research and given us a lot of help during the process. We have truly enjoyed getting to know you and sincerely hope that our thoughts and ideas will contribute in a satisfying way.

Erik & Maria

I want to thank Maria for making my last year as a student the most rewarding. Not only have you endured my endless stream of bad jokes and my constant tendency to oversleep, but you have also been a true challenge in our daily discussions. You have forced me to push myself in thinking as well as in arguing. It has been a true pleasure and I sincerely hope that I will have the privilege of working with you in the future.

Erik

I want to give great thanks to my dear friend Cecilia, for putting up with my endless whining about my sap-headed research partner, especially about his endless stream of bad jokes and his constant tendency to oversleep. I can honestly say that I could not have done this without you!

Maria
## 3. LITERATURE REVIEW

1. **CHARACTERISTICS OF KNOWLEDGE-INTENSIVE WORK** ................................................................. 21
   1.1 Creating new ideas .................................................................................................................. 21
   1.2 Complex problem-solving, ambiguity and the importance of personal judgments .......... 21
   1.3 Intellectual capabilities and esoteric expertise ................................................................. 22
   1.4 Difficulties in defining knowledge-intensive work .......................................................... 22
2. **ORGANIZATIONAL CONTROL** ........................................................................................................... 23
   2.1 Bureaucratic Control .......................................................................................................... 23
   2.2 Output control .................................................................................................................... 24
   2.3 Normative control ............................................................................................................. 24
3. **CONTROL IN KNOWLEDGE-INTENSIVE CONTEXTS** .................................................................... 25
   3.1 A paradox between bureaucratic control and knowledge-intensiveness ......................... 25
   3.2 Self-management .............................................................................................................. 26
   3.3 Output control in knowledge-intensive work ..................................................................... 26
   3.4 Normative control in knowledge-intensive work ............................................................. 27
4. **THE EXISTENCE OF BUREAUCRATIC CONTROL WITHIN KNOWLEDGE-INTENSIVE FIRMS** ....... 28
   4.1 Explaining the existence and function of bureaucratic control in knowledge-intensive firms ................................................................................................................................................. 28
5. **SOFT BUREAUCRACY** ....................................................................................................................... 29
6. **SHORTFALLS WITH CURRENT LITERATURE ON CONTROL: NEGLECTING THE SUBORDINATE PERSPECTIVE** .................................................................................................................. 29
   6.1 Organizations as negotiated orders .................................................................................... 30
   6.2 Subordinates as interpreters of control ............................................................................. 30
   6.3 The importance of horizontal control .............................................................................. 30
7. **A SUBORDINATE PERSPECTIVE ON BUREAUCRATIC CONTROL** ........................................... 31
   7.1 Bureaucratic control as an experienced threat to autonomy ............................................. 31
   7.2 Lack of bureaucratic control as a cause of uncertainty and stress ................................... 31

## 4. VISUALIZE - OUR CASE STUDY ........................................................................................................... 33
7.4 Future Research .............................................................................................................. 60
7.5 Reflections on Limitations and Bias ........................................................................... 61

8. Reference List ....................................................................................................................... 63

Appendix 1: Article .................................................................................................................. 67
1. Introduction

This chapter serves to introduce the reader to our research topic. We will provide a brief review of existing research on the subject, and highlight areas where we have observed a need for additional investigation.

The iron cage is a powerful metaphor, introduced by Weber and used to describe limitations on work performance imposed by bureaucracy. The worker is locked into a symbolic cage of iron that restrains her. These restrictions on work make for a conflict in modern knowledge-intensive organizations that supposedly demands the workers to use creative solutions to complex problems, never encountered before. However, in his 1993 study Tightening the Iron Cage: Concertive Control in Self-Managing Teams, Barker presents a case study where a formerly bureaucratically controlled firm loosened their grip on the workers and left them to manage themselves on a team-basis. The team was evaluated as a group and the workers started to experience peer pressure, since the peers unlike the former manager were present at all times. Hence, Barker argues that instead of emancipating the workers the concertive control actually replaced the control of the manager with an even tighter one, constructed by the workers themselves.

We have performed a study at Visualize, a leading software-developer that has gone the other way. They have replaced their former adhocracy with a bureaucratic framework, something that the workers have experienced as emancipating. Our study will present an explanation as to why they experience the seemingly tighter control as emancipating. We will also, more importantly, discuss how the company is able to maintain the adhocratic capacity to solve non-standardized problems while issuing the standardization of tasks that is a characteristic feature of bureaucracy. We will argue that the company has successfully mixed bureaucracy and concertive control into, what we would like to call, a concertive bureaucracy.

1.1 Background

1.1.1 The importance of knowledge-intensive work

It is often argued that our society is becoming increasingly knowledge-intensive (Alvesson 2004, Drucker 1977, Nonaka 1994, Warhurst & Thompson 2006). Alvesson emphasizes that a larger proportion of the workforce has a higher education than ever before (2004:4). Organizations are said to be moving from being capital-intensive towards being knowledge-intensive (Alvesson 2004:4ff, Drucker 1977:23f, Nonaka 1994). Rapid technological changes put pressure on companies to be innovative and to constantly provide new and better products and services. As a result, knowledge and intellectual capabilities held by employees are viewed as the most important resources for organizational success (e.g. Drucker 1977:24, Nonaka 1994).
Alvesson (2004:9) demands a more nuanced discussion, claiming that knowledge-intensiveness is a continuum and not an either/or entity. Nonetheless, he argues for the increased importance of knowledge, and calls for an improved theoretical understanding of the concept of knowledge-intensive work. The increased knowledge-intensiveness leads to new challenges for organizational managers regarding the control of employees (Drucker, 1977:23f, 40f). Newell et al. (2009:2) argue “managing knowledge work and knowledge workers is arguably the single most important challenge being faced by all kinds of organizations”. Whilst there is a great amount of literature and research on the subject (e.g. Alvesson 1993, 2000, 2001, Kärreman et al. 2002, Lowendahl 2005, Newell et al. 2009, Starbuck 1992), we have noticed some issues with the existing perspectives on management of knowledge-intensive work.

### 1.1.2 The managing of knowledge-intensive work

The concept of bureaucracy, as defined by Weber, has traditionally been put forward as an optimal organizational form, holding a great ability to control and coordinate organizational actions in an efficient manner (Adler 2012). However, Burns and Stalker (in Sine et al. 2006) argue that more organic organizations without a formal structure may be better equipped to handle the dynamic environment often associated with knowledge-intensive work. In a similar manner, Mintzberg (in Alvesson & Sveningsson 2007:26) argues that innovation driven organizations should be organized in an adhocratic manner, with minimal formalization and standardization. Several other organizational scholars make similar claims and stress that the distinctive characteristics of knowledge-intensive work make the use of bureaucratic rules and procedures unsuitable or even impossible (e.g. Alvheus & Kärreman 2007: 456ff, Ouchi 1979, Kärreman et al. 2002, Starbuck 1992, Alvesson 2004:38, 121ff). Rather, it is often argued that knowledge-workers, or esoteric experts as they are sometimes referred to, should be controlled normatively (Alvehus & Kärreman 2007:456ff, Kunda 1992, Ouchi 1979, Starbuck 1992). The aim of the normative control is to align the goals of the workers with the goals of organizational management, thereby reducing the need for formal rules, procedures and output requirements (Ouchi 1979, Kunda 1992). However, in spite of the great amount of literature advocating the superiority of normative control, bureaucratic control systems still exist within knowledge-intensive organizations (e.g. Kärreman et al. 2002, Baron et al. 1999). Thus, we perceive a contradiction between common assumptions on how knowledge-intensive work should be managed and how the work is managed in practice. Because of this contradiction, we consider the existence of bureaucratic control within knowledge-intensive organizations as a subject of great interest.

While reviewing existing research regarding bureaucratic control in knowledge-intensive contexts, we found that the subject was widely covered from a managerial perspective (e.g. Crossan et al. 1999, Ouchi 1979, Lowendahl 2005:125ff). However, little attention has been given to the knowledge-workers’ perspective on bureaucratic control. While managers normally initiate control attempts, subordinates should not be seen as passive receivers in the process. Rather, subordinates will play an
important part in the way that managerial control unfolds in practice. In everyday talk, it is easy to experience control as an activity or process exerted by managers. However, it may be rather beneficial to view it as a social process whereby managers attempts to exert control. These attempts are then interpreted and either accepted or rejected by the workers. The actual outcomes of managerial control attempts will be dependent on the interpretations.

1.2 Empirical Background
In order to explore how knowledge-workers perceive bureaucratic control we contacted Visualize, a company specialized in software development. During the past years, the organization has rapidly expanded their R&D activities. The Quality Manager claimed that they had done so while keeping the efficiency in the R&D department and believed that the reason for this was that management had put formal processes into place to guide the workers. The processes are supposed to ensure that certain tasks are not forgotten in the software development process, thereby guaranteeing the high quality of Visualize’s software solutions. Without the policies, the quality manager expressed that there was a risk that coordination between employees and their work-tasks would suffer. We thought of this as an example of a knowledge-intensive firm (this claim will be justified in our analysis, section 4.3) that has, following a period of rapid expansion, tried to use bureaucratic control as a way of controlling and coordinating the work being performed by workers.

1.3 Purpose
The purpose of our research has been to increase the understanding of bureaucratic control and its potential functions within a knowledge-intensive work setting. As bureaucratic control has been extensively covered from a managerial perspective, we decided to explore a worker perspective. By investigating how knowledge-workers experience bureaucratic control we hope to contribute to a greater understanding of what purposes bureaucratic control may serve.

1.4 Research Question
The guiding research question for our inquiry has been:

*How do knowledge-workers at Visualize experience and react to bureaucratic control?*

During the research process we found that the Visualize workers perceived bureaucratic control as mainly beneficial. We also came across the paradox that standardizing (one of the characteristics of bureaucracy) a workflow by necessity also reduces the knowledge-intensiveness of the work that is being standardized. Hence, the capacity of solving non-standard problems should also be reduced by the standardization. Visualize seemed to have overcome this problem, leading us to the sub-question:

*How does Visualize manage to combine the perceived benefits of bureaucratic control with the problem-solving capacity of knowledge-intensive work?*
1.5 Limitations

We have studied one team in the R&D department of the software developer Visualize. The study has been carried out four months. Our initial intention was to interview workers from several different teams. Because of time-constraints and an increased workload on several other teams we were however forced to revise this plan and focus on a single team within the R&D department. Following the dispersed areas of responsibility within the department and the different nature of their tasks, the experience of the implemented processes may be different from team to team. We do not claim to provide any generalizable knowledge of how knowledge-workers react on bureaucratic control, only the perspectives that we have perceived based on our observations.
2. Method & Methodology

This section serves to outline our view on social reality and the role we as researchers play in it. Our research will be described as a qualitative study conducted from an interpretivist approach. We will also present our chosen research design, and finally explain the process through which our empirical findings have been analyzed.

2.1 Our view on social reality

2.1.1 Epistemological considerations

We believe that our epistemological view mostly resembles interpretivism. Bryman and Bell (2011:18) refers to Schultz and explains that interpretivism is based on the belief that “social reality has a meaning for human beings and therefore human action is meaningful - that is, it has meaning for them and they act on the basis of the meanings that they attribute to their acts and the acts of others”. This means that “the human world is never a world in itself; it is always an experienced world” (Sandberg & Targama, 2011:27). We share this view and consequently believe that an in-depth understanding of the social world cannot be gained by simply looking at human behavior. Rather, we share the interpretivist belief that a deeper understanding can only be achieved by looking at the meanings and understandings connected to certain behaviors (cf. Sandberg & Targama, 2011:27).

We view the ways in which people interpret and place meaning on social reality as influenced by factors such as previous experiences, understandings and values, as well as the understandings held by others. Hence, the social world cannot be observed in an objective manner. We share Alvesson and Kårremans (2007) view that researchers always carry their own personal pre-understandings, such as theoretical frameworks and assumptions of the world. These understandings will influence the way we interpret empirical material. Alvesson and Deetz expresses that “It is sometimes assumed that if more than one evaluator agrees, then subjectivity is avoided and objectivity is assured” (2000:68). However, the authors emphasize that “two or more persons may easily share the same biases” and thereby interpret the social world in a similar way (ibid). Thus, whilst working in a pair of two might have enabled us to question some of our assumptions, it is most likely that other assumptions have been shared and thereby remain unquestioned. Our understanding of a social situation should therefore not be seen as a representation of some kind of truth. Rather than explaining social reality, the aim of our research is to contribute a suggestion of how social reality may be understood.
2.1.2 Ontological considerations

We believe ourselves to be closer to the constructionist approach, believing that social reality is constructed and influenced by human perceptions, rather than having an objective essence existing independently of its social surroundings. Our ontological considerations rest in a belief that “our understanding of reality is created by ourselves and others on the basis of our experiences and through communication and interaction with other people” (Sandberg & Targama, 2011: 29). Whilst social behavior and interaction might have an objective existence, the way we understand and describe these social interactions is a social construction, as we as humans are the ones giving the interactions their meaning. Language used should not be seen as a neutral tool used to describe social reality, but rather as a part of the social construction of social reality (Alvesson, 2011:109). By using certain words and expressions rather than other to describe the social world, we as researchers might influence our interviewees’ perception of reality, thereby influencing the answers we will get.

2.2 Research Design

2.2.1 Qualitative Study

Following our epistemological standpoint, we believe it impossible to give a true explanation of social reality. Instead, the aim of our study is to gain an increase understanding of how the social world may be perceived and interpreted. We therefore believe a qualitative study to be the most suitable research method for our case. According to Bryman & Bell (2011: 412) the difference between quantitative and qualitative research is sometimes described as a difference between focusing on behavior versus focusing on the meanings associated with certain behavior. We believe an in-depth understanding of how bureaucratic control functions in knowledge-intensive work settings best to be gained by not only looking at how workers act, but also by trying to understand why they act in the way that they do. In order to do so, it is essential that we try to understand how the workers subjected to the control perceive control attempts.

2.2.2 Abductive approach

Our research approach resembles what Alvesson and Sköldberg (1994:42f) refer to as abduction. We conducted our study without a pronounced hypothesis, and tried to be open to the possibility of control being something that was resisted as well as the possibility of it being something embraced by the workers. However, we believe that it is important to remember that our pre-understandings most likely had influence on our expectations and consequently on our findings. For instance, whilst we tried to be open to the possibility that employees might not be experiencing any form of control, our research question was highly influenced by the assumption that employees were indeed experiencing bureaucratic control attempts. This assumption obviously had a great impact on the focus of our interviews and thereby on our findings. Furthermore, hypotheses were developed as our study progressed. These hypotheses were then further investigated. For instance, when conducting our interviews, we developed an initial hypothesis of bureaucratic control being something desirable
by the workers. This hypothesis was then investigated further in later interviews, where we also developed a new hypothesis regarding why bureaucratic control was desired.

2.2.3 Case Study

In order to research how knowledge workers understand and respond to bureaucratic control, we have chosen to perform a case study. By focusing on a specific case we hope to have gained a deeper and more nuanced understanding of how and why the studied knowledge workers perceive and respond to bureaucratic control in certain ways. As has been discussed previously, we believe that employee understandings of social reality will be influenced by many different factors. Therefore, we believe it as important to consider contextual factors when studying human perceptions and behaviors. Case studies allow the researcher to consider the complexity and specific context of a certain case (Bryman and Bell 2011:59, Jacobsen 2002:97f). Jacobsen (ibid) also emphasizes that studying a specific case in-depth increases the possibility that the researcher may reach new and unanticipated findings.

Our case study has been conducted at a software-developing company that we have chosen to call Visualize. Visualize produce and sell software solutions that help users process and analyze data, thereby improving their decision-making. Initially, we focused on the company's R&D department, containing approximately 100 employees working in several different teams. We chose to focus on the R&D unit as we assumed that the work being performed within the department would fit the description of knowledge-intensive work as described in section 4.3. Moreover, due to the large size of the R&D unit, in combination with the significant differences in work-tasks between the different R&D teams, we decided to focus our study on a single team. The team consisted of about 25 employees that are all situated at the company's office in Lund, thereby making our study a single location case study (cf. Bryman & Bell 2011:59). The team was responsible for fixing malfunctioning code (commonly referred to as bugs) found in the company’s existing software solutions. As we will argue in section 4.3, the team can be described as a knowledge-intensive work context.

2.2.4 Semi-structured interviews

The empirical material used in our research has mainly been constructed (cf. Alvesson 2003 discussing researchers as co-constructors of empirical material) through interviews. We choose to perform interviews as we considered this approach to be the best way of gaining insights into the workers perceptions. Initially, we intended to perform interviews with 10-15 employees. However, after conducting eight interviews, we made the assessment that we had reached saturation. Due to the focus of our study, none of the interviewees held a managerial position. The interviewees were randomly chosen from a list provided by the team manager. We considered the possibility that this might have led us to get in contact mostly with employees holding a positive perception of the workplace. However, we got the impression that the chosen correspondents overall showed a critical mindset, and reflected on positive as well as negative aspects of their work environment. With the
help of the team manager, we were able to get in contact with employees in different formal positions (developers and testers), as well as employees with varying years of experience at Visualize. The interviews were conducted in a private room at the workplace, as we hoped this would make the employees feel more inclined to open up about their working experiences. Each interview lasted between 45 and 60 minutes. The interviewees were informed of the purpose of our research and anonymity was granted at forefront. With the consent of our correspondents, all interviews were recorded, and thereafter transcribed within 24 hours. This allowed us to focus on the interview situation, and enabled us to go back and listen the interviewees later on in the research process.

We used a semi-structured approach when interviewing (cf. Bryman & Bell 2011:466ff). Jacobsen (2002:163) emphasizes that interviews conducted without any structure or focus risk becoming too complex and thereby difficult to analyze. We decided on certain themes that we wanted to focus on. Our interviews started out with a few general background questions that we thought would be useful for gaining a greater understanding of each interviewee’s specific context. The questions revolved around factors such as formal education, years of experience within the industry as well as years as an employee at Visualize. Thereafter, we moved on to questions regarding our themes. We prepared a few question regarding each theme that we believed would be helpful in getting the correspondents to start talking. We tried to avoid simple yes or no questions, hoping that this would give us a better insight into which aspects the employees saw as important. Based on the initial answers, more specific follow-up questions were asked. However, in many cases, the correspondents’ answers were comprehensive and answered several of our follow-up questions before they were asked.

2.2.5 Observations
As part of our research process, we have been present at Visualizes office on a daily basis for about four months. We have been provided an office of our own. During a few weeks before the interviews started we chatted informally with employees by the coffee machine, at breakfast-coffee and occasionally during lunch. We also wandered around in the facility, discussing our observations with each other. Our observations have given us a perception of the workplace atmosphere that has worked as an important complement to our interviews.

2.2.6 Analysis of our empirical findings
We have analyzed the transcriptions from our interviews independently in order to identify different themes, and quotes that we believed captured these themes. The themes and quotes were thereafter discussed among us. Several different mind maps have been drawn in order to help us identify connections between the different themes as well as their relation to existing research. Drawing inspiration from the work of Alvesson (2003, 2011) we have attempted to adopt a reflexive approach by looking for alternative interpretations and underlying meanings when analyzing our interviews. Moreover, we have tried to pay attention to contractions in the answers of our interviewees.
When analyzing our empirical findings, we acknowledged that our interview answers should not be seen as reflecting an underlying truth. If one holds the belief that the social world is constructed, then the interview situation should not be made an exception. Thus, the interview is not a situation where the social world is described, but rather a situation where it is constructed. The person being interviewed will interpret and try to understand the purposes behind the interview as well as the personal gains the interview may bring (Alvesson & Deetz, 2000:113f). For instance, the interview may be used for political reasons or as a way to construct a certain image or identity (Alvesson 2011:85ff, Alvesson & Deetz 2000:73). It is also possible that correspondents try to give answers that they believe to be socially desirable (ibid). These possibilities were considered throughout the research process. However, as stated previously, we believe that the employees generally showed a great will to reflect over positive as well as negative aspects. Furthermore, we believe that some of the correspondents showed a greater will to critically reflect upon themselves and their workplace. The statements of these employees have therefore been given greater emphasis in our analysis.
3. Literature Review

In the following section, we will discuss the concept of knowledge-intensive work and how this category of work differs from other types of work. Based on characteristics used to describe knowledge-intensive work, we will also discuss control within knowledge-intensive work contexts, with a focus on bureaucratic control.

3.1 Characteristics of knowledge-intensive work

In spite of the growing interest in knowledge-intensive work, there is no clear and agreed upon definition of the concept. Newell et al. (2009:24) emphasize that all work demands some form of knowledge. Hence, all types of work can be described as knowledge-work. However, different types of knowledge will be important in different types of work. Therefore, organizational scholars still tend to agree on the usefulness of the concept of knowledge-intensive work as a way of distinguishing and describing certain types of work (e.g. Alvesson 2004, Newell et al. 2009, Starbuck 1992). In the forthcoming discussion, we will present some of the distinctive characteristics that have been used to describe knowledge-intensive work.

3.1.1 Creating new ideas

It is often argued that knowledge-intensive work revolves around the creation of new ideas in the form of new solutions, products and services (Alvehus & Kärreman 2007:448, Warhurst & Thompson 2006). Newell et al. (2009:24) describe knowledge-intensive work as “the creation of new knowledge or the application of existing knowledge in new ways”. This is a broad definition and includes the development new products and services as well as the development of solutions to existing problems. The common feature is the creation of something new. In addition, Frenkel et al. (1995) distinguishes knowledge-intensive work from more routinized jobs partly by arguing that there is a higher degree of creativity involved in knowledge-intensive work.

3.1.2 Complex problem-solving, ambiguity and the importance of personal judgments

Alvesson (2004:21ff) highlights complex problem solving as an important aspect of knowledge-intensive work. He argues that knowledge-workers often face new and unique situations where many different aspects will have to be considered when performing their tasks. Hence, Alvesson claims that knowledge-intensive work is characterized by a high degree of complexity. Alvesson (2004:48f) argues that the complexity and uniqueness associated with knowledge-intensive work may result in a great deal of ambiguity. He explains ambiguity as “uncertainty that cannot be resolved or reconciled - absence of agreement on boundaries, clear principles, or solutions” (ibid:48). Alvesson further develops his reasoning by arguing that ambiguity means that the uncertainty involved in a certain situation cannot be removed even if the worker gathers more information. Thus, work-related ambiguity means that it is not possible to make a clear determination of what the right course of action in a certain situation might be. Alvesson (2004:48) stresses that this is likely to be the case in
knowledge-intensive work, where the complexity and uniqueness of work situations makes it difficult to determine what the outcomes of different decisions will be. The knowledge-workers will have to consider many different aspects, and how they may interrelate. Due to the ambiguous nature of knowledge-intensive work, Alvesson (2004:48) emphasizes that personal judgments and interpretations will have a great influence on the decisions being made in certain situations. As the uncertainty involved in work-tasks cannot be entirely removed, different people might make different judgment calls, even though they hold the same information.

3.1.3 Intellectual capabilities and esoteric expertise

The complex and ambiguous nature of knowledge-intensive work often leaves organizational scholars to stress the importance of workers intellectual, rather than physical, capabilities (Starbuck 1992, Kärreman et al. 2002). For instance, Alvesson (2004:48) emphasize that, as knowledge-intensive work involves making judgment calls in complex and unique situations, analytical skills are crucial for knowledge-workers. The importance of intellectual capabilities is also highlighted by Frenkel et al. (1995), who argue that knowledge-intensive work mostly demands analytical, rather than action-oriented, skills.

In addition, whilst all work demands some type of knowledge, knowledge-intensive work is often argued to be more dependent on theoretical knowledge compared to other types of work (Frenkel et al. 1995, Kärreman et al. 2002, Alvesson 2004: 1, 12, 24, Rennstam 2007:14). Furthermore, context-specific experiences are often seen as an important complement to theoretical knowledge (Alvesson 2004:58, Starbuck 1992). However, Frenkel et al. (1995) argue that contextual knowledge also is an important input in easier, routinized jobs. Therefore, the use of context-specific knowledge should not be seen as a specific characteristic of knowledge-intensive work. Starbuck stresses the importance of esoteric expertise to the execution of knowledge-intensive work (1992:716). He further explains this by arguing that in order for work to be considered knowledge-intensive, the main input into the work should be some form of uncommon knowledge, rather than knowledge that is commonly shared. The esoteric expertise may be theoretical knowledge, but it may also be context-specific knowledge. What matters is the fact that the knowledge used is difficult to acquire and therefore is not held by the majority of other workers.

To summarize the previous discussion, there is no clear definition of the concept of knowledge-intensive work. Nonetheless, organizational scholars tend to agree on some characteristics that distinguish knowledge-intensive work from other types of work. These characteristics revolve around the creative use of knowledge; the complexity, uniqueness and ambiguity of the tasks; and the importance of personal judgments and esoteric expertise.

3.1.4 Difficulties in defining knowledge-intensive work

It might not always be easy to make the distinction between knowledge-intensive work and other types of work in practice. Alvesson (2001) argues that intellectual capabilities and knowledge may
not always be as important to organizations described as knowledge-intensive, as often assumed. In a study of a knowledge-intensive firm, Alvesson (2000:84) found that part of the work performed by employees were routinized and standardized tasks that did not fit the description of knowledge-intensive work. Alvesson’s study showed that whilst some of the work-tasks might fit the common description of knowledge-intensive work, others might not. Furthermore, Warhurst & Thompson (2006) argue that the assumption that we are living in a knowledge-intensive society might be exaggerated. The authors emphasize that whilst the number of employees with higher education may have increased, employees might not always have to utilize the knowledge gained through education when performing their work. In addition, Warhurst and Thompson argue that the claims for knowledge-intensiveness are based on the idea that all work being performed within organizations engaged in R&D qualifies as knowledge-intensive. However, it is possible that some organizational units, such as R&D, engage in knowledge-intensive work, while other units perform easier and routinized tasks that rely mostly on manual labor (ibid, Alvesson 2004). Thus, not all modern organizations should be described as throughout knowledge-intensive.

3.2 Organizational control

In the forthcoming section, we will give a brief introduction to some of the different methods of organizational control that may be used in modern organizations. Whilst our focus will be on the use of bureaucratic control, we will also discuss output control and normative control, since the different control methods often co-exist within organizations (Kärreman & Rennstam 2007:170f). Furthermore, output control and normative control are often seen as more suitable alternatives than bureaucratic control in knowledge-intensive contexts. Therefore, we believe that a discussion regarding control in knowledge-intensive work requires the consideration of these control methods as well.

3.2.1 Bureaucratic Control

Bureaucratic control is often argued to be consisting of three important aspects: standardization, hierarchy and centralization (Kärreman et al. 2002, Mintzberg in Alvesson & Sveningsson 2007:24f).

Standardization can be described as the establishment of impersonal rules and procedures that serves as guides or regulations on how the different actors in an organization are supposed to behave (Kärreman & Rennstam 2007:157f). Rules and procedures are used to describe how work-tasks are to be executed, thereby ensuring that workers are performing their work correctly. Furthermore, organizational rules are also used to control the division of labor within the organization. The bureaucratic rules specify work-tasks and responsibilities in relation to different organizational roles. Thus, the employees’ formal work positions, rather than their personalities, determine which work-tasks they are expected to perform. Besanko et al. (2010:91ff) describe the idea behind centralization as resting on a belief that organizational actions will be better coordinated if the authority to make organizational decision is moved to the hands of a few organizational actors. The idea of centralization can be related to the hierarchical structure. The hierarchy places organizational
members on different levels of authority, where actors with a higher position in the organization (e.g. managers) normally have the power to make decisions regarding the work situation (e.g. tasks, pay) of their subordinates. Thus, organizational hierarchy is used to allocate decision-making among organizational actors.

3.2.2 Output control

Output control, as the term suggests, is less focused on behavior and more focused on what the behavior results in (Kärreman & Rennstam 2007:160f). Workers are given the freedom to use personal judgment on how to achieve predesignated goals. Nonetheless, workers are still controlled, as they have to achieve certain results. Whereas bureaucratic control typically means that managers are the ones deciding how workers are to work in order to reach desirable goals, output control transferred the responsibility to the workers themselves.

3.2.3 Normative control

Normative control targets the employee’s mind “through norms, emotions, beliefs and values (...) [and is] (...) intended to affect behavior indirectly.” (Alvesson & Kärreman 2004). The idea is to affect behavior through making certain actions, thoughts and language appear more correct or appealing than other. The aim is to create a shared understanding among organizational members, regarding factors such as organizational goals, values and desirable behaviors (ibid). Hence, the idea is to achieve coordinated action by ensuring that employees agree on organizational goals as well as the behaviors desirable to reach them. Normative control can be described as an indirect form of control (Alvesson 2004:124). Officially, employees are given autonomy to freely make judgments and decisions. However, as these judgments will be influenced by conscious as well as subconscious norms, Willmott (1993) argues that it can be questioned how much freedom the employee actually has.

Ouchi (1979) highlights two different methods that can be used in order to exert normative control, namely recruitment and socialization. By paying attention to personal beliefs, values, and norms when recruiting, the organization can increase the likelihood that new employees not only hold the desirable qualifications, but also the desired attitude. Socialization, on the other hand, is focused on using rituals, symbols and ceremonies in order to internalize organizational values into employees (ibid). Thus, whilst recruitment is concerned with finding individuals that share organizational values and making them a part of the organization, socialization focuses on influencing the values of the employees already part of the organization.

To summarize, we have presented three different methods of control often used in organizational contexts. Bureaucratic control is associated with the standardization of work processes and tasks, a hierarchical structure and centralized decision-making. The second method, output control, is focused on results rather than behavior. The workers are evaluated by their ability to meet predesignated goals. Finally, we have presented normative control. This form of control can be
described as indirect, as it is aim at affecting the goals, beliefs and values of the workers, thereby hoping to affect their behaviors in ways desirable for the organization. In the next section, we will discuss the different methods of control in relation to knowledge-intensive work.

3.3 Control in knowledge-intensive contexts

As argued in our introduction, the complexity of knowledge-intensive work often creates new challenges regarding organizational control. Whereas organizational control traditionally has been concerned with ensuring that employees are using their physical capabilities in a desirable way, Sewell (2005) argues that a challenge in knowledge-intensive work is to assure that knowledge-workers are using their mental capabilities efficiently. In the forthcoming discussion, we will address what implications this claim has for the control of knowledge-workers.

3.3.1 A paradox between bureaucratic control and knowledge-intensiveness

It is often argued that the characteristics associated with knowledge-intensive work make bureaucratic control inappropriate (Kärreman et al. 2002, Courpasson & Reed 2004, Alvesson 2004). Ouchi (1979) explains the suitability of bureaucratic control as being dependent on the knowledge of the transformation process (i.e. knowledge on how desirable outcomes are achieved). If organizational members know in advance how to reach desirable results, work-processes leading to those results can be written down and formalized. However, due to the ambiguous nature of knowledge-intensive work, complete knowledge of the transformation process is often wanting (Alvehus & Kärreman 2007:457). As a result, the use of formalized work processes will be of no use (Ouchi, 1979). Furthermore, knowledge-intensive work involves unique and complex situations and it is therefore difficult to create standardized rules and procedures that capture all possible cases and considerations. Therefore, organizational scholars often emphasize the importance of the knowledge-workers and their personal judgments rather than the standardization of work-procedures (Alvesson 2004). Furthermore, Starbuck (1992) argues that the routinization of tasks risk harming the knowledge-intensiveness of the work. Kärreman et al. (2002) present a similar argument by stressing that a knowledge-intensive firm only can have so much bureaucracy. The close link between knowledge and ambiguity (cf. Alvesson 2004) suggests that as ambiguity is reduced so is the knowledge-intensiveness. As long as the work is characterized by complexity, uniqueness and ambiguity, the authors argue that a certain degree of flexibility and autonomy is needed. Hence, the core-processes must remain somewhat untouched by bureaucratic control.

Kärreman et al. (2002) emphasize that the hierarchical structure associated with bureaucratic control normally centralizes decision-making to the hands of managers. However, as mentioned previously, knowledge-workers are by definition the esoteric experts within their specific work-area: “[s]uperiors may have more general experience and overview but have less understanding of what can and should be done in specific situations” (Alvesson 2004:23). Therefore, knowledge-workers are deemed better fitted to make decisions regarding the execution of their specific work-tasks. Since knowledge-workers usually are better suited than their managers at making the necessary decisions,
the importance of autonomy is often emphasized (ibid). Alvesson argues that “[s]ituationally relevant expertise may often carry more authority than formal position” (ibid). As a result, formal hierarchy is often downplayed. This reasoning can be linked to Besanko et al.’s (2010:92f) argument that centralized decision making may lead to worse decisions, as the decision maker might lack the ability to process the relevant information in a satisfying way. Hence, by allowing decisions to be made by the workers themselves (i.e. through decentralization), decisions are likely to be better grounded. In addition, the authors stress that decentralization allows for more timely decisions to be made (ibid:92).

3.3.2 Self-management

Due to problems associated with bureaucratic control in knowledge-intensive work, it is often argued that knowledge workers are better off managing themselves (Drucker 1977, Alvesson 2004:38). The ambiguous nature of the work makes it difficult to formalize work processes that help guiding the workers. Rather, the knowledge-workers have to rely on personal judgment when conducting their work. As managers often lack a deeper understanding of the specific work-situations faced by the knowledge-workers, the workers normally cannot rely on the help of managers when making these decisions. Rather, managers often provide workers with autonomy and expect them to satisfyingly perform their work without much interference or guidance. However, managers in knowledge-intensive organization often rely on other control methods (i.e. output control and normative control) to ensure that knowledge-workers are managing themselves in a desirable way (Ouchi 1979, Alvehus & Kärreman 2007:457).

3.3.3 Output control in knowledge-intensive work

Alvehus and Kärreman (2007:457) argue that some form of output control often is used to measure the results of knowledge-intensive workers. The workers are empowered to manage themselves towards the achievement of certain outcomes and are thereafter evaluated accordingly. However, Alvehus and Kärreman emphasize that there may be difficulties associated with output control in knowledge-intensive work (2007:457). Referring once again to Ouchi (1979), the suitability of output control can be linked to the ability to measure outputs. If results can be measured, control can be performed through output measurement (e.g. the amount of tables a carpenter makes in one day). In some types of work where knowledge of the transformation process is far from perfect, it may still possible to measure outputs. For instance: I don’t know how to programme but I can still evaluate if a computer programme is fulfilling its purpose or not. Hence the output can be measured through extensive testing of the programme. However, many types of knowledge-intensive work are difficult, or nearly impossible, to measure the output of.

Alvesson (2001, 2004:25), as well as Starbuck (1992), emphasizes the difficulties in assessing the outcomes of knowledge-work. Because the knowledge-workers usually are the ones with the most knowledge regarding their specific work-area, it can be difficult for others to understand how judgments and decisions are made. In order for managers to assess the quality of subordinates work
accomplishments, they must possess the same, complex, knowledge as the worker. The esoteric nature of the abilities used in the work-process creates a “firewall” (Rennstam 2007:203) that prevents insight for the uninitiated. Furthermore, the ambiguity involved in the work means that there is a great possibility that different experts in the field make different evaluation of the work-outcomes. Different experts may hold different opinions on the quality of the outcomes, as well as the underlying reasons behind the outcomes (Alvesson 2004:64ff). It might for instance be difficult to determine if better outcomes could have been achieved by making other judgment calls.

The output-measurability may differ between different kinds of knowledge work. Alvesson (2001) argues that it is especially hard to assess the quality of the knowledge work in situations where no tangible product has been produced. However, the outcomes of knowledge-work can be difficult, even when outcomes are tangible. For instance, whilst it might be possible to determine if a computer programme fulfills its purpose, it can be difficult to determine whether other decisions would have led to an even better programme. Furthermore, even though it may be possible for managers to assess result, it might still be difficult to determine requirements for these outputs in advance. Some situations will likely involve a specific problem to solve. However, in other situations it may be the case that neither managers nor workers can specify what outcomes they are hoping for in advance. It may be difficult to set the output requirements for new products and services before they have been invented. In these cases, output control will not be possible.

3.3.4 Normative control in knowledge-intensive work

Normative control is often advocated in situations where bureaucratic control and output control are seen as problematic (Alvehus & Kärreman 2007:457, Ouchi 1979). For instance, Alvehus and Kärreman (2007:460) argue that when neither work-task nor outputs can be predetermined, the only option left is to control the workers themselves. Therefore, it is no surprise that organizational scholars often highlight normative control as the most important control-mechanisms for the management of knowledge-intensive work (e.g. Alvesson 2004: 124, 131, Kärreman et al. 2002, Alvehus & Kärreman 2007:547). The importance of normative control is highlighted in several empirical studies of knowledge-intensive work (e.g. Alvesson 2000, Kunda 1992). As mentioned previously, the argument behind normative control is that if employees share organizational values, they will act in the best interest of the company. Thus, normative control can be seen as an important complement to the use of self-management, something that is emphasized by Rennstam (2007:18). The incorporation of the desired organizational values and goals can possible make the workers manage themselves in a direction deemed desirable by those exercising the control (ibid). Thereby, normative control can (at least in theory) remove the need for bureaucratic control and output control.

Concluding the previous discussion, the use of bureaucratic control methods in knowledge-intensive contexts is normally seen as inappropriate. Rather, organizational scholars often stress the importance of normative control, when possible used in a combination with output control (Alvehus
& Kärreman 2007:457, Frenkel et al. 1995). Nonetheless, studies have shown the persistent existence of characteristics of bureaucratic control in knowledge-intensive organizations. This will be discussed further in the coming section.

3.4 The existence of bureaucratic control within knowledge-intensive firms

Kärreman et al. (2002) performed a study of two different knowledge-intensive firms, a global management firm and a R&D department of a large pharmaceutical company. The authors noticed several characteristics of bureaucratic organizations in the studied firms; hierarchy, centralization and attempts to standardize work procedures. Furthermore, Baron et al. (1999) performed a study of several knowledge-intensive firms, and found that many of the organizations exhibited bureaucratic features. Thus, even though organizational scholars argue against the use of bureaucratic control in knowledge-intensive firms to the favor of normative control, managers still rely on bureaucracy in practice.

3.4.1 Explaining the existence and function of bureaucratic control in knowledge-intensive firms

Lowendahl (2005) emphasizes the importance of bureaucratization as a way for managers to achieve coordinated work within an organization. Whilst Lowendahl’s work is focused on professional service firms, she expresses that her argument is relevant for understanding the management of knowledge-intensive organizations in general (2005:13). Lowendahl (2005:125ff) argues that knowledge-intensive firms normally start out with an informal structure where individuals make decisions autonomously. However, as firms are developed and grow in size, so does the need for coordination through the use of formal structures. Larger organizations will experience a greater need for managerial decisions and prioritizations that ensure that the work is efficiently focused towards organizational goals. Lowendahl’s argument can be strengthened by Baron et al.’s (1999) work, as their research showed that several of the knowledge-intensive firms increased their bureaucratization as a result of organizational growth. In addition, Crossan et al. (1999) present an argument similar to Lowendahl by emphasizing institutionalization of rules and procedures as a way to spread knowledge through organizations. The organization (or rather certain actors in the organization) identifies work procedures that they deem efficient and favorable, and tries to spread them across the organization (Crossan et al. 1999, Kärreman et al. 2002). Like Lowendahl, the authors see bureaucratization (i.e. attempts to institutionalize a certain order) as a natural evolution following organizational growth. Furthermore, Ouchi (1979) emphasize that institutionalization of knowledge held by individual employees can be a way of protecting organizational efficiency in the event of turnover. He argues that whilst organizational culture can hold rules regarding behavior, the retention of these informal rules are more dependent on the remaining of the existing workforce than formal rules are.

To summarize, there are several explanations for the existence and function of bureaucracy within knowledge-intensive organizations. Nonetheless, the paradox between bureaucracy and knowledge-
intensiveness remains. Lowendahl (2005) argues that whilst bureaucracy can increase organizational efficiency, it comes at the expense of the flexibility and autonomy of the individual knowledge-worker, who is exposed to increased behavioral control. This is problematic, as the execution of knowledge-intensive work to a large extent is dependent on the autonomy of employees.

3.5 Soft bureaucracy
The fact that some knowledge-intensive organizations lack a formal bureaucratic framework does not necessarily mean that the organizations do not possess the characteristics of bureaucracy. Courpasson (2000) highlights this by introducing the concept of soft bureaucracy. Soft bureaucracies differ from traditional bureaucracies in that workers are seemingly given the freedom to decide how to perform their work tasks (ibid). This philosophy is often seen as appropriate when it comes to the management of knowledge-workers (Robertson & Swan 2004). However, the autonomy of the knowledge-workers should not be exaggerated. Robertson and Swan (2004) emphasize that the knowledge-workers will have to produce satisfying outcomes in order to keep their autonomy. When studying control in knowledge-intensive work, Robertson and Swan as well as Courpasson found that whilst employees generally were given the freedom to decide how to perform one’s tasks, the organizations were still relying on performance appraisals and formal career structures in order to ensure that employees were striving for desirable results. Hence, the authors found that the organizations were controlling employees through the use of the hierarchical dimension of bureaucracy rather than standardization of work procedures and job descriptions. Courpasson (2000) refers to this type of control as a soft bureaucracy, as workers are seemingly given a greater sense of freedom than is the case in traditional bureaucracies. Nonetheless, the workers are still being subjected to control, as their performance is constantly being evaluated and used in career decisions. The concept of soft bureaucracy is also harshly criticized by Willmott (1993), for being a system of brain washing. Robertson and Swan (2004) argue that whilst soft bureaucracies may enable control and at the same time ensure that workers experience autonomy, there are risks with the control system. They emphasize that an increased focus on organizational hierarchy and formal career paths might lead to increased competition and thereby hinder cooperation.

3.6 Shortfalls with current literature on control: neglecting the subordinate perspective
While insightful, the theories regarding bureaucratic control presented above have their drawbacks, namely their lack of a worker perspective. Rennstam (2007:20) argues that a common problem with discussions regarding control is that they are often focused on the activities performed by managers, without paying much attention to how these attempt are understood by the subordinates. Rosenthal (2004) shares this view and argues for more research on employees’ perspective on control, and how control may be related to employee interests. When looking into theoretical explanations for the existence of bureaucratic control, we too found that the literature usually takes on a managerial, top-down, perspective. For instance, the explanation for the existence and function of bureaucracy presented above all take on a managerial perspective. However, if we are to see organizations as
negotiated orders, we see that a discussion on control cannot be held without a subordinate perspective.

3.6.1 Organizations as negotiated orders
When viewing organizations as negotiated orders (Watson 2006:59ff), rather than given entities, we realize that organizational actions are a consequence of an ongoing negotiation involving subordinates as well as managers. The aim of organizational control is to ensure that common goals are agreed upon and that coordinated action is taken towards these goals (Alvesson & Kärreman 2004). Officially, the responsibility for ensuring coordinated action lies with organizational managers (Kärreman & Rennstam 2007:153, Watson 2006:167, Drucker 1977:11) and managerial control attempts are likely to exist in most organizations. Therefore, it is no surprise that literature on control often takes on a managerial perspective, where control is seen as something that is executed by managers as a way to help them fulfill their managerial responsibilities. However, in order for managerial control attempts to help managers reach coordinated action, the attempts will have to be accepted by the workers. The actions that workers are expected to perform and the personal interests they are expected to forsake will have to be deemed reasonable in comparison to the outcomes they are believed to bring. Hence, the managerial goals and controls will have to be accepted by the workers. Therefore, it is important to acknowledge subordinates and their perceptions when discussing organizational control.

3.6.2 Subordinates as interpreters of control
Concluding the previous discussion, the outcomes of managerial control attempts will be dependent on the subordinates’ perception of the attempts and the consequences they are expected to bring. What matters is not how managers perceive the control attempts and their anticipated outcomes, but rather how the subordinates perceive them. Watson (2006:269) emphasizes that whilst managers can use rules and procedures to influence the behavior of subordinates, they can never fully predict how control will be perceived and responded to by employees.

3.6.3 The importance of horizontal control
As mentioned in the previous discussion, the official responsibility for ensuring coordinated action with organizations lies with managers. However, managers are not the only ones exercising control. Rather, organizational control can be divided into two different types; vertical control initiated by management, and horizontal control originating from peers (Kärreman & Rennstam 2007:153, Rennstam 2007:25ff). In some organizations, the greatest part of organizational control may actually derive from colleagues rather than managers. For instance, Rennstam (2007) performed a study of an engineering company and found that employees to a large extent controlled each other through what he calls peer reviewing. Peer reviewing is described as a process whereby workers control each other by evaluating and providing feedback on the work performed by one another. Rennstam argues that this type of control is likely to be especially important in what he calls complex work (i.e. work with a high degree of complexity, thereby demanding esoteric expertise). The reason for this is that the
complex nature of the work normally means that other workers, rather than managers, are the ones holding the relevant expertise needed to evaluate the performed work.

In another study, Barker (1993) observed a company moving from bureaucratic control to self-managed teams. Barker noticed that the change lead to what he refers to as concertive control. Teams were given almost total autonomy, given only guidelines and a general statement on the company vision. Within these frames they were free to elect their own representatives, as well as having full autonomy on employment and discipline matters and in deciding how to conduct their work. However, the need of coordination still forced the workers to exercise control over each other, but at a horizontal level. The result was the mutual development of a sense of work ethics and norms, and the absence of a supervising manager lead to a strong sense of control from the peers. “Now the whole team is around me and the whole team is observing what I’m doing” (Barker 1993:430). Thus, Barker’s study can be seen as another example of the important part subordinates play in the execution of organizational control.

3.7 A subordinate perspective on bureaucratic control

3.7.1 Bureaucratic control as an experienced threat to autonomy

While documentation of routines and procedures can make organizations less vulnerable, the exercise of bureaucratic control in knowledge-intensive firms can be difficult because “most experts want autonomy, they want recognition of the individuality and they want their firms to have egalitarian structures” (Starbuck 1992:727). Therefore, he argues that knowledge workers often oppose bureaucratic control attempts. Robertson and Swan (2004) argue that a shift towards bureaucracy within knowledge-intensive organizations might be problematic, as the knowledge-workers might feel as though their autonomy is threatened and therefore decide to leave the organization. The authors refers to a study performed by Baron et al. (1999), in which it was concluded that knowledge-intensive firms increasing their bureaucracy experienced higher turnover rates. Robertson and Swan argue that the risk of increased job turnover might be avoided by creating a soft bureaucracy (cf. section 3.5). However, whilst highlighting the importance of the knowledge-workers, Robertson and Swans argument is presented without any empirical research. Rather, their argument seems to be based on an assumption that knowledge-workers desire autonomy.

3.7.2 Lack of bureaucratic control as a cause of uncertainty and stress

In a study performed by Maravelias (2003), the author found that a lack of formal job descriptions and expectations lead to a great deal of stress among employees. Within the studied organization, employees were not only given the freedom to decide how to perform their tasks, but also the freedom to decide which work-tasks to engage in. However, employees were still expected to produce outputs that were valuable to the organization. Thus, employees were expected to engage in self-management. The great amount of freedom created a feeling of uncertainty and stress among employees, who had no clear perception of what was expected of them. As a result, employees
worked extremely hard. Maravelias study shows that by removing formal control systems, organizational control might actually by increased. Thus, autonomy may not be as liberating as is often assumed.

The argument that a lack of bureaucratic control may cause stress among employees can be strengthened by referring to the previously mentioned study performed by Barker (1993). Barker’s study showed that as bureaucratic control was removed, a new form of concertive control was negotiated among the employees. This leads to the conclusion that employees may actually desire some form of control that guides their work behavior. The study shows that there is a risk that a lack of formal expectations and rules might lead employees to experience greater stress. Barker (1993) argues that over time, the concertive control negotiated within the company became increasingly formalized. In the end, it became a stricter form of control than the previously existing bureaucracy. Thus, rather than reducing organizational control, the shift towards self-managed team actually increased the control experienced by employees. Ultimately, Barker argues that the sense of common responsibility lead to people burning themselves out. This opens for the thought of bureaucratic control as something that might be desired by the workers. Bureaucracy, after all, provides a comforting clarity on what is expected.
4. Visualize - Our Case Study

This section serves to present our case study. We will describe the investigated firm as we have experienced it and through the words of our interviewees. The presentation of the company will touch the basic characteristics of the firm and the organization as a cultural context. In addition, we will describe Visualize as a knowledge-intensive context. Based on this, we will discuss some of the challenges with managerial control at Visualize. Finally, we will describe normative control attempts taking place at Visualize, as well as the workers responses to these attempts.

4.1 Visualize - A brief presentation

Visualize is a large international high-tech company, specialized in providing business-to-business software solutions. The company's software products help users structure, analyze and present large amounts of data. The software has a reputation for being very advanced and of high quality. Visualize has increased their customer base considerably over the past years and is today one of the leading companies in their market. The majority of employees work with sales and marketing, and the company's sales efforts are seen as an important success factor. Moreover, the company invests heavily in R&D, as the future competitiveness of the company is expected to depend on the constant development and improvement of existing software solutions. Nonetheless, the R&D department is relatively small in comparison to the large sales force. The unit consists of several different teams, each specialized in different areas connected to the development and programming of the company's software products. Broadly divided, the teams are either specialized in new development or in the maintenance of the existing products. Our interviews were conducted with members of a team responsible for fixing software problems that are reported from Visualize's support function. Visualize also has a support unit that collaborates closely with the R&D department, as many of the system malfunctions reported to the customer support are forwarded to the R&D unit for fixing. The company also has support functions working within areas such as facility service, HR and finance. However, these support functions make up a minority of all employees. Visualize has offices in a wide range of countries located all over the world and the sales force is spread across the different locations. The company's headquarter is situated in the U.S, while all R&D is performed at one of the locations in Sweden.

4.2 The Visualize culture

In order to describe Visualize as an organizational context we need to consider cultural aspects. Watson (2006:80ff) discusses culture as a system of meaning that serves to guide human actions in that specific context. It regards moral considerations as well as the notion of success and failure and many other aspects of how to conceive the information that the senses provide. This information constitutes itself in the forms of the use of language, the way people act and in the symbolic (Alvesson 2007:189ff, Kunda 1992:8). Not only does culture constitute itself through language,
actions and physical objects, but it also affects the behavior of the workers. Moreover, it affects the opinions and reflections expressed in our interviews. Hence, it is crucial to consider the Visualize culture when analyzing the company.

In order to describe the culture at Visualize we have tried to look for ways in which the organization distinguishes itself in regard to these aspects. The analysis has been roughly divided into language, actions, and the symbolic, although language and actions may overlap. Later on, in section 4.4.1, we will also discuss controlling aspect of culture. A natural consequence of Watson’s view of culture is that if one can affect the cultural context one can also affect peoples preferences and behaviors (cf. Kunda 1992:8, Ouchi 1979). It is this idea that underlies the notion of normative control. By influencing the values, goals and beliefs of workers, it is believed to be possible to influence their behavior (cf. section 3.2.3).

### 4.2.1 Language

When considering how culture reveals itself through language there are several aspects to take into account. The words chosen and the connotation given to those words are one aspect, slogans and communicated values are another, and so is storytelling that communicates values and ideologies (Alvesson 2007:189).

There seem to be what we would like to call a distanced professionalism in the environment at Visualize. The interviewees expressed a desire to perform well, and most felt almost annoyed that they were shown a lot of patients during their introduction, since they just wanted to get going. While expressing a desire to perform well, the workers also distanced themselves from their work. This was shown through a lot of laughs and an easy-going attitude towards their work (cf. Fleming & Spicer 2007 on cognitive distancing). The workers also emphasized that they enjoy their work, and that the colleagues and the tasks are what motivates them to go to work.

**Interviewer:** What do you like the most about your work? Why do you enjoy going here?

**Interviewee:** A lot of it is probably that we are enjoying ourselves together. From a social aspect, there’s a nice atmosphere. That’s probably a major reason. And I enjoy the tasks too. Almost everything I do here is something I enjoy. (...) I face enjoyable challenges all the time. It’s probably for these two reasons. The social atmosphere and the enjoyable tasks.

Two words that were frequently used when interviewees described their social environment were openness, which is also a core-value at Visualize, and teamwork. One of the senior employees stated that nobody in the studied team work entirely independently, no matter how experienced they were, and that they often teamed up for, what they called, pair programming. The workers seemed more oriented around learning and getting a good result than they were about defending their own territory.
An interviewee reflected on the time it takes to learn how to perform their job: “As a junior it takes a long time [to perform well], perhaps six months up to a year. Yeah, I still don’t know all of it. (...) I would say that you know 10 percent of the product after 2,5 years.” Because of the dispersed nature of the team’s knowledge regarding the product, the workers are forced into the open and team-emphasizing atmosphere. That is also something that the more senior employees seemed to be impressed by: “The ones that I’ve been in contact with among the new employees have been very curious and have taken a lot of initiatives on their own. (...) Also the HR-department has inculcated that asking questions is a good thing. That they shouldn’t hesitate to ask questions.” Those two statements serve to illustrate that both junior and senior employees showed a humble attitude towards one another and that mutual respect frequently was shown.

Regarding the use of slogans, Visualize uses four official core-values that are communicated as a source of competitive advantage. The values are frequently communicated during the introductory ‘academy’ and on yearly company conferences. However, according to the interviewees, the core-values were not discussed on a daily basis. An employee commented: “We do perhaps talk about them sometimes, but it’s not like we are discussing like ‘what does this mean to you.’” We investigated how the employees perceived the values, and found that they all embraced them, most even considered them as common sense. However it was also a common view that the rapid expansion and the attempts to move into a phase of exploitation have led to the dilution of some of the values.

Interviewer: Do you think that they [the values] are serving a purpose?
Interviewee: Yes, I believe so yes. As long as there is compliance, then they are absolutely serving a purpose. But they are starting to dilute so there might be a need to rewrite them in a few years.

Interviewer: Are there any specific values that you would have preferred?
Interviewee: What I have reflected over the most is perhaps that we have replaced moving fast with processes. It’s more like ‘don’t ask, just do’ or how to put it.

There are also signs that the employees are making critical considerations regarding the core-values.

Interviewer: Are you mocking the values?
Interviewee: Yes, you do. When it fits the context you speak a core-value. (...) There’s always one of them that fit. But it provides a nice feeling. If you cannot make fun of the values then I wouldn’t be able to cope.

Another employee answered the question of why the values were used: “I don’t know. I’ve been asking myself the same question because it’s just buzzwords. It’s like saying ‘you shouldn’t kill your colleague’, ‘code well’, ‘be open-minded’. It is just very, very, common sense and it feels more like
some companies experiences a need to, kind of, distribute these core-values as if they were some kind of a mantra. (...) I think it is counterproductive.” She also emphasized that the values are not taken too seriously.

Although the employees are critical about the use of the core values, and make jokes about them, they seem to agree on the values and rather view it as sad that they are not always lived by. A core-value that was referred to several times as important was the emphasizing of teamwork. When asked what abilities Visualize cannot compromise with when hiring a new employee, one of the interviewees replied without hesitation “The will to cooperate.” The friendly and helpful atmosphere is a value that was emphasized and also something that we have noticed. Generally the colleagues were expressed as a major motif as to why the interviewees have chosen to stay at Visualize, together with the variation that the work tasks provide.

4.2.2 Actions

When considering the communication of culture through actions, Alvesson (2007:190f) stresses everyday conduct and also ceremonial activities as ways in which culture manifests itself. Regarding these aspects we have not done many observations but rely on what we have been told by the interviewees. The day starts with a meeting by a board that shows the present status of the cases they have to solve. Following this, everyone leaves for a bun and coffee at the company’s expense. Even the consultants (which there has been a lot for the last year) and two master students are supplied coffee and a bun at the company’s expense. This is something that one of the interviewees emphasizes as important, since it creates a sense of connectedness for all workers.

Regarding ceremonial activities, the employees we have talked to generally seem to be very skeptic, in a way similar to their perceptions of the core-values. Activities that serve to establish a certain mindset or a certain mood seem to be perceived as annoying and counterproductive. One of the interviewees gave her view on some of the activities:

Interviewer: Earlier you said that you think the company has become a bit Americanized.
Interviewee: Mm...
Interviewer: Can you elaborate?
Interviewee: Well, it is. It is. (...) When you’ve been to those great summits, those corporate meetings [yearly events that gathers all employees from around the world] and it all feels so American [laughs]. The CEO is holding a speech and everyone applauds enthusiastically after every sentence... every sentence [she illustrates by clapping her hands]. Imagine an American talk show. Similar to that. And everything is so great. It is all so much Visualize. So... sect-like. Not really our... not really the most Swedish way, like... our way.
Interviewer: Do you perceive it as something that affects the culture here as well?
Interviewee: No, I don’t think so. I don’t think so. I hope it doesn’t (...). They [the company] have this Academy where employees from around the world arrive here for a week and are supposed to be indoctrinated in the Swedish culture. But I don’t think it is that much of indoctrination in Swedish culture as they come here and overwhelm us with their American culture instead. It is like being assaulted by these Americans who are very good at asserting themselves.

Rather than letting herself be influenced by this ‘Americanized’ culture the interviewee heartily made fun of the American employees that mostly consists of the company’s sales force. In addition it was expressed that the R&D-personnel would prefer more technical details throughout the Academy. It was considered to be too much fuzzy talk, which they considered to be relevant to sellers but a waste of time for those working in R&D. One of the interviewees stated: “It is for sellers! I thought it was incredibly dull. It was like four hours about the product and like 54 hours about how to sell it. So from a technical perspective on the organization it was really dull. (...) In the end you had heard the core-values 58 times and that time could have been spent more efficiently. There were some really silly activities like throwing balls to each other and that kind of bullshit... I don’t remember why the hell we were doing that but... (...) It was in order to learn to cooperate, how the hell that should... I don’t remember exactly but I remember thinking ‘I can’t believe this’.”

However, there are also activities initiated by the workers themselves that can also be seen as ceremonial. “When we finish a service-release we often go out and have an after-work. We’ll eat, have a beer and that gives a good feeling, since we have left something we’ve been working on. (...) That chapter is finished in some sense.” Activities such as these also serves the purpose of creating a certain mood, but we got the impression that it was initiated by the workers in order to create a sense of relief, rather than serving a controlling or culture building purpose.

4.2.3. The symbolic

Visualize’s R&D-department is located, together with some other company functions, in a modern facility that is built in two blocks. The managers have offices of their own but most of the workers are located in open plan areas. The eastern side of the building provides a panorama-view of the agricultural area surrounding the city and the company has taken advantage of this, using the spaces with the best view as common areas. For instance, close to the office where we have been working there is an ‘innovation-room’ allowed for anyone at any time, with some sofas, toys, programming-literature and thoughts on innovation and processes written on the walls. We do not know if the rooms is used much but we perceive it as an attempt to encourage creativity and innovation. Conclusively, the physical environment seems to be intended as mostly functional, rather than as carrying symbolism.
4.3 Visualizes R&D unit as a knowledge-intensive context

As mentioned previously, the focus of our study has been a team within the R&D unit at Visualize. As discussed previously, it can be problematic to classify entire organizations as knowledge-intensive (cf. section 3.1.4). As we have only studied the R&D department at Visualize, we do not wish to make any claims for the knowledge-intensiveness (or lack thereof) of Visualize as a whole. Rather, the forthcoming analysis will be focused solely on the studied team. Our future use of the pseudonym Visualize will therefore refer to the studied team, as oppose to the entire organization.

4.3.1 Solving unique and complex problems - Work related ambiguity

The work performed at Visualize revolves around analyzing, diagnosing and fixing software malfunctions reported by the customer service unit. The interviewees highlighted the unique character of the malfunctions and expressed that they often face unique problems. One of the employees, who had been working for the company for many years, expressed: “My god, I am still learning new stuff, every week.” Due to the unique character of the problems faced within the team, the workers mainly develop unique, rather than standardized, solutions.

The interviews also highlighted the complex nature of the problems faced within the team. One of the interviewees argued: “It’s an extremely difficult job. I believe that coding something new is a lot easier. With our work you have to understand how the person who wrote the code was thinking so that you do not miss anything. Because it can easily be like, you receive a problem, you fix the problem, but maybe you knock out something else. You need to understand the whole picture. ‘What will I affect if I do this change?’”. This statement stresses the high degree of complexity involved in the work. Workers need to consider many different aspects and how they may interrelate when fixing a malfunction. Moreover, the interviewee expressed that in order to solve the work-tasks at hand, the workers have to rely on their own expertise and judgment calls and at the same time understand the judgment calls that have been made by other workers before them.

Another characteristic of the work is that there are no obviously perfect solutions. The programmer may know the intention of a function, but there are always several options available when creating that function. One of the interviewees stated his view on programming as a craft: “I am a an advocate for ‘simple code’. Better with a lot and simple than compressed and complicated.” The quote illustrates the ambiguous nature of the work, and the possibility to advocate different philosophies in how to construct a function.

4.3.2 The importance of personal judgments

The importance of personal judgments can be highlighted by referring to the statement quoted in the previous section, where the interviewee emphasize the importance of understanding how different aspects may interrelate. This statement highlights the workers’ analytical skills as important input into the work. The importance of analytical skills is something that is emphasized by other workers as well. When asked which qualifications were needed to work within the team, one of the
interviewees answered: “You can learn a lot over time but you might need some kind of, I don't know, maybe some kind of, maybe not technical background but analytical skill (...) an ability to understand the connections within the systems”. This statement once again highlights intellectual skills as crucial for handling the complexity involved in work-tasks.

4.3.3 Esoteric expertise

In order to fix malfunctioning code, the employees rely heavily on their technical knowledge of programming. This knowledge can be seen as a form of esoteric expertise. The esoteric nature of the expertise derives from the long education and extensive experience that is required in order to excel within the work. All of the interviewed workers had a computer related academic degree. While a higher educated staff should not be seen as proof of knowledge intensiveness in itself (Warhurst & Thompson 2006), one of the interviewees emphasized the importance of his educational background: “I would not be here without my education. Because they are looking for... If you come here without experience you do not stand a chance of gaining a foothold here, if you lack a higher education. It is simply not possible. Then you need about ten years of experience. After five years the experience starts to take over and education is less important”. With this statement, the employee stresses the difficulty in developing the competency required to perform the work satisfyingly. While the necessary competencies can be developed without a formal technical education, it can take many years to acquire the experience needed to compensate for lack of educational background.

In addition to educational background and practical work experience, the interviewees stressed the importance of context specific expertise regarding Visualize’s products. One of the interviewees expressed: “My god, it can take six, seven, eight years before you can start working as a developer (...), maybe eight, ten years before you are an expert within the area. You need to have the technical competencies, the programming and so on, but there is a great learning curve for the product as well”. This statement highlights that in order to perform some work-tasks; it might not be enough with general programming expertise. Rather, employees need to develop context specific knowledge of Visualize’s product as well, something that can take many years to gain. Hence, we argue that the main work-process within the studied unit, the bug-fixing, requires a high degree of esoteric expertise, and that the execution of the tasks certainly become easier with increased experience.

Furthermore, the esoteric nature of the work is also shown when employees talk about the degree of specialization at Visualize. Due to the size and complexity of the company’s software products, employees are specialized within different areas. As one of the interviewees expressed: “The large size of the product means that nobody knows everything anymore”. The work is performed in cross-functional teams consisting of developers as well as testers. The interviewees emphasized that specialization occurs within the R&D teams as well between them. For instance, one of the interviewees explained the division of work-task in the following way: “Depending on your technical competencies we often have different work-tasks, depending on programming language,
your knowledge of the product and so on”, while another expressed: “You have to chose some kind of direction when working with the product. Some kind of focus-area”. These statements show that even within the studied team, not all employees hold the knowledge relevant to the execution of all work-tasks. Rather, different employees are specialized in their own work-areas, where they, to a different extent, are the esoteric experts.

Concluding the previous discussion, the work performed at Visualize is generally unique, complex and ambiguous. Employees emphasize the importance of personal judgments and analytical skills. Furthermore, the importance of esoteric expertise is highlighted. Thus, the work context in the studied team exhibits many of the features that have been presented as characterizing for knowledge-intensive work (cf. section 3.1). Consequently, we perceive the studied team as an example of a knowledge-intensive work context.

From a critical view, it might not be suitable to classify work as either knowledge-intensive or not (cf. section 3.1.4). Alvesson (2001) argue that some organizations might actually be knowledge claiming rather than knowledge-intense. Being portrayed as a knowledge-worker or a knowledge-intensive firm can be positive for personal identity and organizational image and hence serves to enhance the self-esteem of organizational members (ibid). We have considered the possibility of this being the case at Visualize. However, we deem it highly unlikely, as we got the impression that the interviewed employees were lacking the need to portray themselves as experts. Rather than asserting themselves and stressing their own importance, the importance of the team was often highlighted (cf. section 4.2).

4.4 Challenges of management control at Visualize

Due to the complex nature of the work and the high degree of specialization, the employees emphasize they, rather than their managers, are the experts within their specific work-areas. Referring to Ouchi (1979), the managers at Visualize can be said to lack any greater knowledge of the transformation processes involved in the subordinates work. One of the interviewees express: “(...) the manager cannot know everything that the employees know, because, everybody is, it (the manager) would be an extreme expert. Imagine what kind of person that would be. Completely obnoxious”. With this statement, the worker emphasize that the low managerial knowledge of transformation processes creates difficulties for managers in exercising direct behavioral control over the work activities of employees. The low managerial knowledge of transformation processes has led some of the employees to express an experienced lack of guidance from top management. One of the interviewees stated: “What I lack from the top is deeper technical competencies. The present leaders don't have enough technical competencies. The unit managers and especially the R&D manager don't have that. The former R&D manager had a greater understanding for the technical problems and got involved in the daily work a lot more, and that's something that’s missing at the moment”. Rather than turning to their managers for help on how to perform tasks, the interviewees expressed
that they generally have a lot of freedom in deciding how to perform their work: ‘*We have freedom under responsibility. A lot of freedom under responsibility. Which means that you don't have to go to your manager every time you do something*’. With this statement, the interviewee highlights the importance of self-management. The workers experience great autonomy and rather than receiving practical guidance from their managers, they are expected to manage themselves. Nonetheless, whilst direct behavioral control generally is lacking, top management is still attempting to control the employees through the use of normative control.

4.4.1 Normative control attempts at Visualize

In this subsection we will consider what we judge to be more or less conscious attempts at affecting the corporate culture at Visualize (i.e. normative control attempts). The two aspects we have found are what Ouchi (1979) refers to as recruitment and socialization. Attempts at socialization are executed through the use of core-values and ceremonies (cf. section 4.2). However, we noticed that Visualize’s recruitment strategy almost seem to undermine the attempts at socialization. As referred to previously, the interviewees generally expressed that team-orientation and a willingness to cooperate and ask questions were the most important traits when recruiting new employees. They also expressed that they were impressed by how well the unit manager have succeeded with recruitment in regard to these aspect. However the interviewees also expresses a great concern and a critical mindset regarding the core-values. They agreed about the purpose but they also expressed a feeling that the values were diluting. Which values were considered as diluting was, however, varying among the interviewees. More junior interviewees seemed to be more concerned about ‘move-fast’ and ‘challenge’ while more senior employees were more concerned about ‘open and straightforward’. In some sense Visualize do seem to succeed in achieving the goals of the normative control. The employees appear to embrace the values, and to be highly driven and focused on performing well. There also seems to be a strong sense of responsibility among the employees. However, what is interesting is that the individuals that gets recruited give us the impression of undermining other attempts of normative control (see section 4.2.1 and 4.2.2 about the Visualize culture), following their critical mindset.
5. The Bureaucratic Framework of Visualize

During the past years, Visualize has introduced a set of rules and procedures that provides instructions and guidance on how to perform the work, e.g. what steps need to be done before the specific job is being handed over. The framework consists of a multitude of different instructions, generally referred to as ‘processes’, and that is also the term we will use when referring to them. In this chapter we will describe the R&D department’s transition from a small adhocratic unit to a large bureaucracy. We will present different worker views and opinions on their implemented work-processes. Finally, we will explain how the processes have been agreed upon and utilized by the workers in practice.

5.1 The expansion and bureaucratization

5.1.1 Background - Rapid expansion of the R&D unit

During the last couple of years, Visualize has gone through a period of rapid growth, entering new markets and increasing their customer base considerably. Great investments have been made in the development of the company's software solutions. The rapid expansion has brought new challenges to the studied team. The R&D department has been reorganized into several cross-functional teams where developers and testers work closely together. From formerly being located in an office small enough for everyone to hear what was going on, knowing everyone by name and being able to have informal contacts with the entire company they have been divided into teams that one interviewee problematized: “I think the teams have become similar to watertight compartments, but that is something that we’re trying to overcome”.

The expansion also brought in a lot of new employees and consultants in order to cope with the increased workload. During the past years, the studied team has gone from being about ten employees to being nearly thirty. Interviewees who have been working within the R&D unit before the expansion expressed that the changes had been huge. One of the interviewee stated: “There are many ways in which it [Visualize] has changed since I started here, sometimes it does not feel like the same company at all”, whilst another employee expressed “it has been an exciting journey. It is, it is not the same company, for better or worse. But that is how it is, you cannot, you cannot expect anything else really when such great changes are taking place”. In order to get everyone going, the R&D management introduced processes to coordinate the efforts of the entire unit. From a managerial standpoint, the aim of the processes is to make the workflow clear and to ensure that the right actions are taken in the correct order. One of the managers voiced a belief that it would not be possible to grow as rapidly as Visualize’s R&D department has without introducing formalized processes. The drop in efficiency would have been too great. However, our interest has been focused
towards how the processes are perceived by workers. Hence, the following sections serves to explain the increased bureaucratization, as experienced by the workers.

### 5.1.2 Visualize before the expansion - An Adhocracy

When asked about the nature of the work before the expansion and the introduction of the work processes, the interviewees in many ways testified of an organization that we deem close to the characteristics of an adhocracy. Alvesson and Sveningsson (2007:26) describe adhocracy as an organizational structure where workers are combined in temporary teams that are to solve specific tasks. They emphasize that the workers often are specialists supposed to provide innovative solutions and that the communication often takes informal forms. One of the interviewees described his experience: “There was a sense of freedom, since you had the opportunity to learn new things. At the same time it also caused frustration, since we had what you could call three or four different hats. ‘I don’t really know what this is but I’ve heard about it. I’ll go home and do some research for a few days and solve the problem later’. It was exciting but when it happens a lot it might not end up with the best result since you’re doing a lot of things that you’re no expert on.” The worker captures the continuous change in roles by using the metaphor of carrying different hats. The workers had much autonomy and the managers relied on them to solve tasks. When asked about how they prioritized between tasks back then one interviewee laughingly replied: “That depended on the case. And it depended on whether you got a hold of a manager and well…” A senior developer also spoke of the ability to get hold of the R&D manager to pitch an idea. If he approved of the idea the worker felt encouraged and could spend time on testing it. Furthermore, the workplace was much smaller. Several interviewees witnessed about the ability to overhear conversations and throw themselves into discussions and projects that seemed interesting. A senior worker stated his belief that this way of organizing the work what has made Visualize successful.

### 5.1.3 Increased bureaucratization through standardization of work-processes

Over the past years, Visualize have implemented work processes that aims at guiding the actions of employees. One of the interviewees expressed: “I think that it’s more structured at the moment. It’s more, there are more checklists and more people working here who has, how can I put it, tasks that are assigned to them” while another stated: “When I started here, if you needed a job description in order to work for the company, well then you could not be here, more or less. But now it is the other way around. You have to be able to follow a job description”. These statements summarize the general perception among interviewees - job roles as well as work activities have become more clearly defined. The implemented processes can thereby be described as an implementation of bureaucratic control in the form of increased standardization (cf. section 3.2.1). When discussing the increased bureaucratization at Visualize in the forthcoming discussion, our focus will be on the increased standardization. As noted in section 3.2.1, bureaucratic control often includes centralization and hierarchy as well. However, despite the development of a more hierarchical structure (through the appointment of team leaders within the R&D unit), Visualize has kept a large degree of decentralization. This will be explained further in section 5.3.
5.2 Workers perception of the processes

In the following subsection, we will highlight that the interviewed workers at Visualize in general had a positive perception of the implemented processes. Overall, the interviewees emphasized that processes were helpful for coordinating work and constituting and spreading knowledge. In addition, we noted that they viewed the processes as an appreciated clarification of expectations. However, we will also stress that some of the interviewees were aware of and frustrated with tradeoffs following the increased bureaucratization of the work.

5.2.1 Processes as coordinating

A commonly expressed view on the development of Visualize’s R&D department is that it has gone from a workplace where everyone knew each other to a workplace that is divided into “watertight compartments”, to reuse a fitting metaphor. “When I was hired we were only, like in the beginning, five or six testers and then it obviously takes much less effort to sit down together and discuss.” In contrast to how it used to be before the expansion another employee said: “I believe it’s more difficult, if you find an error, to know who to go to, and so on, since we have a lot of unit-managers now. I believe that previously, when the company was smaller, then I always knew who to talk to if I had any questions. Now there are many small steps to take before I get to the right person. Now I have to contact the unit-manager who contacts another person. I suppose that’s the difference. The structure is more hierarchical, inevitably in some way”. These statements highlight that as Visualize has grown, it has becomes increasingly difficult to coordinate work without any formal structure (cf. Lowendahl’s 2005:125ff). The coordination that the employees used to sort out in between themselves now has to be worked out through more formal ways of communication, and in order to make the entire software compatible the processes are needed to coordinate the development and testing of the various parts. As a metaphor, imagine 150 people making a puzzle without any sort of overhead guidance, or for that matter by running around talking to all the other workers who are making adjacent pieces. It might work out with 30 workers, but becomes increasingly difficult as the number of workers increases. Hence, some sort of standardization and overhead guidance is required in order to make the different pieces of the software compatible with each other.

5.2.2 Processes as constituting and instituting knowledge

As Visualize’s software products have been developed and the workforce has expanded, the workers have also become more specialized (see section 4.3.3). An employee, quoted in section 4.2.1, claimed to know only ten per cent of the product after 2,5 years at the company. Several of the employees expressed that the high degree of specialization, in combination with the large size of the workforce, created new challenges when it came to sharing knowledge and learning. For instance, one of the employees expressed: “It used to be this small company where everyone knew each other. Everyone was talking in the corridors, over unit borders. There was nothing like that really, not that much borders [between the units]. Or, well, there was R&D but it didn’t really matter. You talked to everyone anyway and everyone knew what everyone was responsible for. ‘That guy, he’s written that part of the code and then you could just talk to him and... well if I were supposed to find out how this

45
is working ‘well Anders knows, go and talk to him’. It used to be much more like that and there really wasn’t much documentation”. The challenges emerging due to the expanded workforce is something that several of our interviewees discussed. Another employee reflected upon the situation by explaining: “You worked more tightly together. (...) As you grow it becomes more important to document what you’re doing and to write down even what you are considering obvious and basic stuff. (...) Especially if someone with a key competence is absent”. Hence, in line with Ouchi’s (1979) argument for bureaucratization, institutionalization of work processes is seen as a way to protect the organization in case of employee turnover. The interviewee further explained: “Everyone can’t learn that Anders knows that part of the code and that that certain person has that responsibility, ‘Well, Lars knows that because he was in that project’. It doesn’t work if Lars quits and Anders quits or does something else. You have to create more, yeah partly that you document what you do and also that we follow certain processes when we develop the code in order to make sure that not some dude does everything on his own like... ‘well, I develop this code a bit and then I test it and check it in and then everything is perfect’. It wouldn’t be that good [laughs].” These reflections show a deep awareness among the interviewees that the processes serve a purpose and that the workers embrace them. The processes are used to institutionalize knowledge that previously existed on an individual or group level. This allows employees to draw knowledge from the documented processes and documentations instead of being forced to the prolonged processes of intuition, interpretation and integration in order to function (cf. Crossan et al. 1999). Furthermore, the statement above also highlights that the processes help to coordinate work among an increasing number of employees, as discussed in the previous section.

5.2.3 Bureaucratization as a clarification of expectations

One of the themes we discovered during the interviews was that the introduction of designated processes made it much easier for the workers to know how to perform their work satisfactory. This has reduced ambiguity and anxiety, and thereby improved the work situation. One interviewee reflected on her own introduction to the workplace and the improvements made since then:

“[M]any of those who you could imagine that you would get a lot of help from went on their vacations, and it wasn’t quite clear what I was suppose to do. For one and a half month, I didn’t really feel like I had any particular task. So I though my introduction SUUUCKED [laughingly said in falsett]. I can tell you that it was the worst [introduction] I’ve ever had at any job. Because you were just sitting there waiting, and I was like ‘I just want to do something’, but ‘No, just take it easy and sit here and play around with the system and learn how it works’. ‘Yes but I want to start working, I can do it’. So it felt a bit... But today, today I think it’s better. They have worked a lot more with... I think they have worked a lot more with the onboarding program.”

The quote above is illustrative for several interviewees, who expressed that when they arrived at Visualize they were shown a lot of patience, but experienced it as anxiety rather than emancipating.
What they desired was clear objectives and expectations in order to know how they were performing. One interviewee elaborated on the increased bureaucracy at Visualize: “When I started here, if you needed a job description in order to work for the company, well then you could not be here, more or less. But now it is the other way around. You have to be able to follow a job description, and I think that’s a good thing. Because it’s more defined. If I do these things I will know that I have done what I’m suppose to, more or less. Then you can go into a discussion regarding whether you have performed well or not.” The interviewee puts emphasis on the move from a workplace where job descriptions were non-existent and where you had to cope with that, into a workplace where you cannot function if you cannot follow a job description. He experienced the more clearly defined tasks as a relief. Another employee gives her view on the introduced processes: “I think it’s for the best. I am... I think I’m the sort of person who wants structure and control and follow rules and such. I think it’s related to what kind of person you are.”

5.2.4 Bureaucratization as hampering to worker autonomy

However, not all employees perceived the formalized expectations as indisputably positive. The processes are, by some employees, considered to be hampering freedom and to reduce the joy in working. One employee elaborated: “I think that many of us who have worked here longer feel like it’s not quite as fun as it used to be. That there used to be a lot more freedom, in different way, before. For instance, our former manager used to encourage us to build our own applications. (...) But that is not something that is encouraged anymore.” Even though these thoughts are expressed in similar ways by several interviewees and even though a few of them also give consideration to alternate solutions, there is a general awareness that there is an issue to be solved. Another employee considered both sides: “The creativity used to be a lot more free. Of course there are a more processes and so on. I think that many of us that have been here longer have wanted some pieces in place. Because it was a bit unclear who was suppose to do what and what you really were suppose to do in some situations and so on. A “necessary evil” in some sense. I think that we should have processes, but at the same time it’s hard not to make them inhibitory to creativity”. This statement also highlights a paradox. There is a contradiction between the standardization of work, following increased bureaucracy, and the knowledge-intensiveness required to solve non-standard problems (cf. section 3.3.1). This paradox will be extensively covered in the discussion.

5.3 The processes in practice

In the following section, we will explain how the processes at Visualize have been implemented and utilized in practice. We will describe the processes as negotiated from below, as oppose to them being enforced upon workers by top management. Moreover, the flexible use of the processes will be highlighted. In addition, we will stress that deviations from processes are agree upon collectively by the workers. Finally, we will note personal differences in workers willingness to make deviations.
5.3.1 The negotiated nature of the processes

In some sense all control is negotiated, since it has to be embraced, or at least accepted, by those who are subjected to it. However, at Visualize the workers are actively taking part and trying to affect the processes when they deem them unsuitable. There is also a feeling that the processes are serving as a support structure, rather than as a system of control: “The processes are there for us you might say. So that’s good, that it isn’t something that we are forced into. Because then it gets a bit, well of course that never plays out well. Rather it’s, I feel like we control it a bit so, based on what suits us.”

Several of the interviewees expressed that they experience a sense of control over the processes, and one of them even clearly stated that the reason why he applied to Visualize was because of the way they worked and that he felt that he could influence the processes. The interviewee, who claimed to be among the ones working on the processes, also declared: “I’m not suppose to sit here and decide what we are going to measure. Rather, that is something that we decide on together within the group.” Hence, the dialogue surrounding the development of the processes is emphasized, from both the more active participators and those that show less interest in taking part in the discussions. The fact that the processes are a result of negotiation is vital. We end this subsection with a quote emphasizing the importance of everyone being able to have their say: “The difficulty is in finding a process that suits all different types of people. Not everybody has the same preferences regarding how it should be done. You have to find some process that everybody find acceptable, whilst it is fruitful at the same time”.

5.3.2 A pragmatic use of the processes

A possible challenge for bureaucratic organizations is that the bureaucracy is set up to deal with typical cases, while deviations still may occur (cf. Kärreman et al. 2002, Lowendahl 2005). However, the employees at Visualize argued that there is a great flexibility when following the implemented processes. “To follow a process should always be taken a bit lightly. A process describes the normal flow but we have loads of deviations where we are forced to be pragmatic. (…) The processes are not flexible but we are flexible people, so we’ll have to bend the processes a bit.” With this statement, the employee expressed that while work processes in themselves may be rigid, it does not necessarily follow that the processes should be used in a rigid way. Rather, the interviewee argued for a pragmatic interpretation of the processes where they are seen as guidance rather than a restrain. The interviewee elaborated his view on the use of the processes further by stating: “You have an overall idea regarding how the flow should be, but also the basic ideas behind it, so you know when to make deviations and have good reasons for making them, so to speak. Because the processes cannot contain all the potential corner cases that might exist. But whether or not that is a deviation, well, I’m not sure what to call it”. The pragmatism required to conduct the work makes the interviewee not even consider corner cutting as a deviation. It is simply something that is occasionally inevitable.

Concluding the previous sections, the workers play an important role in the negotiation of the implemented processes. Decisions to deviate from the processes are made by the workers themselves,
without any necessary interference from top management. Thus, while the implemented processes have led to increased standardization, Visualize has kept a high degree of decentralization regarding decisions on how the processes are to be used.

5.3.3 The importance of consensus when deviating
The interviewed workers expressed a tolerance towards deviation from the processes. However, all of the interviewees also argued that none of them would make the call on their own. Rather, the workers always seek another opinion before making the decision to deviate from a process. “As long as you communicate, as long as you agree on why you are making a deviation and as long as everybody involved and affected agree, I think it’s okay”. Another employee expressed: “Yes, it is [accepted that one deviate from processes], it is. I think so. I’ve never been yelled at for deviating, anyway. But we cooperate. Nobody makes a decision on their own. You ask for advice and discuss pros and cons and then you do whatever suits the situation”. These statements show that while deviations are accepted, it is important that they are agreed upon. Employees are expected to work together, rather than making decisions by themselves. The importance of consulting others can be seen as an utterance of the team-focused culture in place at Visualize. Moreover, due to the degree of specialization and importance of esoteric expertise (cf. section 4.3.3), consulting with colleagues can also be seen as a way of seeking expert advice in situations where the worker is anxious. Seeking guidance can be seen as a way to deal with the complexity involved in work-tasks. Hence, colleagues act as an important supplement to the bureaucratic control when it comes to guidance on how to perform one’s work. When processes cannot provide clear directions, employees chose to turn to each other. In other words, employees manage themselves by seeking guidance from others.

5.3.4 Differences in inclination to deviate
While we got the overall impression that the workers saw deviations from processes as necessary, we also noticed that some of the workers seemed to have a personality that made them deviate more frequently. One interviewee stated: “I can imagine people thinking that it’s complicated now since there are more steps to go through (...) but I believe it’s a good thing. (...) I like to have structure and control and to follow rules and such. I think it’s about how you are as a person”. Nonetheless, we got the impression that all interviewees, including those who like the clear guidance of the processes, acknowledged that there was a need to deviate from them at times. For instance, when one of the interviewees was asked whether the processes were flexible, the answer was: “Yes, that’s, that’s how it has to be, even though we want to try to follow them. (...) So it’s, it’s stuff like that… that you at least have to try to, you know, readjust. So of course it’s, it’s flexible as well. But of course you also have important checkpoints to think about that shouldn’t get lost”. This statement shows that while the employee preferred to follow the processes and saw the benefits from doing so, a certain degree of flexibility was seen as necessary.

Overall, we noticed that there seem to be a discrepancy between the more senior and the more junior workers in their tendencies towards deviation. For instance, one of the more senior employees
expressed his view on whether more senior employees show a greater tendency towards deviation: “The seniors are rather good at quickly making something out of their ideas, while the new employees doesn’t really have the courage to do that without first establishing the idea. The will to experiment has somewhat gotten lost. The ones who have been around for a long time still uses half a day to test their ideas. Sometimes it works and sometimes it doesn’t. While those who haven’t been around as long prefers a long discussion before... testing an idea in practice isn’t done that frequently anymore”. With this statement, the employee express that more senior employees are more inclined to follow their own instinct, rather than seek guidance from others. In a sense, the senior employees are more inclined to manage themselves. When asked if the greater tendency for senior employees to take personal initiatives could be explained by a greater tolerance towards the seniors, the interviewee answered: “No, I don’t think so. (...) Among the developers, I believe it would be seen as a good thing if people were taking more initiatives. I’m not entirely sure that the managers would appreciate it that much, but for us who have worked that way before, we would view it in a very positive way. (...) A bit more ‘challenge’ [referring to one of the core-values]”. Hence, the interviewee did not believe that more junior employees were given less encouragement to take personal initiatives and make deviations. However, he did acknowledge that managerial encouragements for personal initiatives generally were lacking.

Interviewer: Do you perceive that you [the workers in general] are trusted by the R&D manager?
Interviewee: I can miss that a bit as well. A bit. The R&D manager is too isolated from the everyday work. So... I don’t think I can say that I quite feel the trust either.

Interviewer: Do you experience that the trust is not there, or is it that it’s not communicated?

Interviewee: I think it’s not communicated. Yes, I think that’s it. Yes, after closer consideration I’m completely convinced that that’s the case.

Following these reflections, the employee was convinced that while managerial encouragements were missing, personal initiatives and judgments were still viewed as positive by top management. As a contrast, the same interviewee also stated that initiatives taken by single employees are what have created Visualize’s current product, but also that the initiatives taken have deteriorated as the number of employees has increased. “Some people prefer to be told ‘solve this problem’. As we have grown there are more programmers who prefer to be given a task. ‘Solve this, solve that’ and they prefer not to take many initiatives. But when someone new appears and displays that mentality it makes you happy. (...) That [initiatives] is also something that is needed if the company is going to keep progressing. (...) It should be encouraged.” Hence, some employees prefer the perceived safeness of keeping close to the bureaucratic guidance, while some prefers a creative freedom to test their own ideas.
6. Discussion

This section serves to discuss our findings with our research question as our point of departure. As a reminder, our guiding research question is *how do knowledge-workers at Visualize experience and react to bureaucratic control*. We will start by assessing this question. During our literature review we also discovered a paradox following that bureaucracy, when ambiguity-reducing, also by necessity reduces the knowledge-intensiveness of the work. Hence, we added the question *how does Visualize manage to combine the perceived benefits of bureaucratic control with the problem-solving capacity of knowledge-intensive work?*

Referring to our literature review, organizational scholars often argue that increased bureaucracy leads to decreased knowledge-intensiveness (Kärreman et al. 2002, Lowendahl 2005, Starbuck 1992). When conducting our interviews, we found that this view was shared by some of the Visualize employees, who emphasized the negative impact that the introduction of processes had on creativity (in the specific context we interpreted the term creativity as referring to what we discuss as knowledge-intensiveness). Furthermore, the workers also push on the significance of being able to deviate from the processes, since there is a large variation in what difficulties they face in their everyday work. In spite of this, we found that the studied knowledge-workers had an overall positive perception of the bureaucratic framework in place. Although most of the interviewees stated that the work could not be conducted without the processes, this was not what we perceived as the main reason as to why they viewed the bureaucratic framework as positive. The embrace of the introduced processes was mainly a consequence of the perceived emancipating effects it had on the work-related anxiety that occasionally followed the previously unclear expectations. However, the challenge that appears is how to combine the perceived emancipation of bureaucracy with the capacity to solve complex problems, which defines knowledge-intensive work. In the forthcoming discussion, we will argue that the answer lies in the establishment of a system that utilizes the emancipating effects of bureaucracy, while at the same time providing a perceived flexibility that enables the knowledge-intensiveness of the work to remain.

6.1 The tightening iron cage and the ambiguous expectations from the Other

6.1.1 The shortcomings of normative control at Visualize

We have previously discussed that normative control is generally considered to be more fitting in a knowledge-intensive environment (Kunda 1992, Ouchi 1979, Kärreman et al. 2002). However, at Visualize the interviewees expressed strong skepticism towards most of the attempts of normative control. Even though all of the interviewees claimed to agree on the corporate-values, most of them considered the values common sense and believed that the work would be conducted exactly the same regardless of the communicated values. Several of the interviewees also said that the corporate-values are being diluted, following that they are increasingly often being compromised. One of the
interviewees expressed the perception of a slight dishonesty following that he felt that the management were communicating one thing and the corporate-values something else. Not only the communicated corporate-values were criticized, but also ceremonial activities such as the company academy and gatherings during the company summits. Comparing the CEO speech at the company’s yearly gathering to a sect-meeting shows an awareness and a skepticism towards attempts at normative control. Also several activities during the academy were being dismissed as sales talk and some interviewees even ridiculed the activities performed. The perceived dishonesty of the corporate-values and the perception of the ceremonial activities as ridiculous prevent them from coming across as serving a purpose. Hence, to our interviewees they are doing more damage than good. The employees seems to be aware of what Willmott (1993) observed: “The guiding aim and abiding concern of corporate culturism [or normative control, as referred to in this thesis], as I shall characterize it, is to win the 'hearts and minds' of employees: to define their purposes by managing what they think and feel, and not just how they behave.” The subconscious awareness of this overhead purpose makes the employees resent attempts at normative control. Something that one of them described as having their head patted as if they were children. Therefore they distance themselves through jokes and mischief in order to cope with the normative control. From this point of departure it is easily understood that the clearer bureaucratic control is experienced as more honest than the more subtle normative control. Since the normative control is perceived as exaggerated (the CEO speech and the academy) or diluting (the core-values) the workers do not trust the control as providing the required guidance. Hence, text-bound instructions in the form of processes replace the experienced ambiguity in expectations.

6.1.2 Bureaucratic control - Loosening the iron cage

The iron cage is a popular metaphor used in contexts related to bureaucratic control (e.g. Barker 1993, Adler 2012, Tijsterman & Overeem 2008). To repeat our introduction: the concept refers to the limitations on work performance, imposed by the hierarchical structure of decision making and by the rules constituting both the division of labor and how the labor should be constituted. The worker is locked into a symbolic cage of iron that restrains her. In comparison to Visualize, Barker (1993) studied a company that went in an opposite direction. They loosened the bureaucratic grip on the workers, and replaced it with a value-based system of normative control. The managerial control was transferred to the workers, who acted in self-managed teams where decisions were made in a sort of democratic manner. Barker named this article Tightening the Iron Cage: Concertive Control in Self-Managing Teams, suggesting that it did not have the emancipatory effect that advocates of this democratic way of controlling work suggests. Instead, what the workers experienced was a never-ending feeling of being under surveillance. Now they needed not only to be aware of when their superior was around, but their peers were also surveying them, since everyone was evaluated on team performance instead of on an individual basis. “The irony of the change in this postbureaucratic organization is that, instead of loosening, the iron cage of rule-based, rational control, as Max Weber called it, actually became tighter” (Barker 1993:408). As we are about to see,
the workers at Visualize used to have a similar experience of the lack of clear guidance and expectations.

As several of the Visualize employees have expressed, the company has gone from an environment where creativity and innovation prospered. If they ran into difficulties, there was no problem to conduct research over a few days and learn how to solve the problem. Now the increased size of the company has created a division of labor, where workers carry esoteric expertise that is not by default available to all organizational members. As one of the interviewees expressed, they have moved from one person carrying several different hats (the metaphor of carrying several hats is referring to acting in different roles, i.e. not being specialized or locked into one single task) to only carrying one hat each. Although some employees enjoyed the adhocratic non-structure that used to prevail, several of the interviewees expressed that the more defined roles, tasks and the division of labor was a relief. Also the increased measurability decreased the work related anxiety, since it was easier to evaluate the performance of each worker. In an analogy to the tightening iron cage described by Barker, it can be argued that the bureaucratic framework loosens the iron cage since the expectations requires less interpretation.

6.1.3 Constructing expectations and the Other

Styhre (2008) makes an argument similar to our statement that bureaucracy loosens the iron cage, while drawing on the work of Jacques Lacan. Lacan described the human cognition as depending on two psychological registers, the symbolic and the imaginary, to conceptualize the impressions experienced from the environment (in Styhre 2008). Styhre argues that bureaucratic control relates to the symbolic, since the symbolic is constituted by the use of language and provides the worker a clearer normative framework to relate her behavior to. In a non-bureaucratic organization the worker enter a state of self-monitoring, evaluating her own actions in relation to perceived and ambiguous norms constructed by the worker through social interactions (ibid). Lacan signifies these perceived norms as originating from the Other (Lacan in Muhr & Kirkegaard 2011). The Other should be read as a representation of those we seek recognition from and/or those we believe ourselves to be supposed to meet expectations from, e.g. parents, friends, colleagues etc. (ibid). The process of creating these experienced norms is performed using the imaginary register (Styhre 2008). Styhre’s argument leads him to state that absence of textually encoded control is not necessarily liberating for the employees. It might rather force them to conceptualize expectations from the Other using the imaginary register in order to construct more ambiguous norms to replace the clearer textually encoded ones (ibid). Relating Styhre’s argument to the statement in section 6.1.2, textually encoded expectations require less interpretation than expectations communicated through subtle interactions. The possibility of returning to documented agreements to evaluate one’s performance may provide a safe haven to those experiencing difficulties to cope with the ambiguous process of creating perceived expectations from the Other.
6.1.4 Emancipation through jointly constructing the Other

Our argument is intended to emphasize that, while seemingly locking workers into an iron cage of rules and hierarchical structures, bureaucracy can also be experienced as emancipating since it provides clearer expectations from the Other. Hence, the workers are not forced to use the more ambiguous imaginary register to create the perceived expectations of the Other. The significance of this quality in bureaucratic control is emphasized by the Visualize interviewees who have stressed the relief of having clear expectations and a defined workflow. Thus, in contrast to the common perception of normative control as the most suitable in knowledge-intensive work settings, we argue that bureaucratic control might actually be preferred from a workers perspective. What are then the difficulties that follow in the wake of bureaucratization? In the next subsection we will discuss the trade-offs made when a knowledge-intensive organization introduces bureaucracy.

6.2 Bureaucracy and knowledge-intensiveness - a paradox made to work

Organizational scholars often argue for the inappropriateness of bureaucratic control in knowledge-intensive work (cf. section 3.3.1). A paradox appears in the relation between the standardization that follows bureaucratization and the ambiguity that constitutes knowledge-intensive work. As previously stated, when the ambiguity in the work is reduced so is the knowledge-intensiveness (Kärreman et al. 2002). In order to maintain an ability to handle non-standardized problems, work processes cannot be entirely standardized. During our study, some of the interviewees did express that the implemented processes could hamper the knowledge-intensiveness of their work. At the same time, most of the employees stressed that the processes helped them perform and coordinate their work better. Whilst acknowledging the risk associated with bureaucracy, the workers’ general perception seemed to be that they maintained the knowledge-intensive capacity in a satisfying manner. This led us to the conclusion that Visualize can be seen as a case where the assumed paradox between bureaucracy and knowledge-intensiveness is made working. In the forthcoming discussion, we will provide an explanation as to why this may be. We will argue that Visualize’s solution has been to let the processes be a product of negotiation from below, something that we will refer to as a concertive bureaucracy (cf. concertive control - Barker 1993). Furthermore, we will stress that the workers pragmatic interpretations of the processes allows for the deviations needed to sustain the knowledge-intensiveness of the work.

6.2.1 Visualize - A Concertive Bureaucracy

Discussions regarding bureaucratic control often assume a managerial perspective by describing bureaucracy as a control developed by management and thereafter imposed on subordinates (e.g. Ouchi 1979, Kärreman et al. 2002, Kärreman & Rennstam 2007:158ff). However, at Visualize, we have observed a bureaucratic framework developed by the knowledge-workers themselves. The negotiation of how to formulate the processes is working in a similar way as concertive control: “[Concertive control] represents a key shift in the locus of control from management to the workers themselves, who collaborate to develop the means of their own control. Workers achieve concertive control by reaching a negotiated consensus on how to shape their behavior according to a set of
“core values” (Barker 1993:411). In spite of the similarities with the case described by Barker, the concertive control at Visualize do differ in that the outcome of the negotiation is a written bureaucratic framework, rather than the establishment of unwritten norms. Therefore, we have chosen to call the system of control in place at Visualize a concertive bureaucracy. In the forthcoming section, we will argue that the concertive nature of the Visualize's bureaucracy is one of the explanations as to why the workers at Visualize view the processes as enabling rather than obstructive.

6.2.2 The importance of the processes being results of negotiation

In order for the designated processes to guide employee behavior towards desirable results, it is crucial that the person(s) exercising control possesses knowledge of the transformation process (Ouchi 1979). The ambiguous nature of knowledge-intensive work is assumed to lead to a low knowledge of transformation processes, thereby making bureaucratic control unsuitable (Alvehus & Kärreman 2007:457). The ambiguous nature of the work performed at Visualize may lead to the assumption that it is not possible to establishment work processes that will guide the workers in a helpful way. Nonetheless, as stressed in our case analysis, the workers at Visualize perceive the implemented processes as a great help. How may this be explained?

The arguments for the low knowledge on transformation processes involved in knowledge-intensive work often take on a managerial perspective (e.g. Ouchi 1979, Alvehus & Kärreman 2007:457). Thus, the argument against the use of behavioral control is based on an assumption of low managerial knowledge of the transformation process. However, a low managerial knowledge of transformation processes does not necessarily means low worker knowledge of the transformation process. In knowledge-intensive work, the workers rather than managers are usually the ones holding the expertise needed to solve emerging problems (Alvesson 2004: 23). Conclusively, while managers might not be able to implement helpful work processes the knowledge-workers themselves, as the esoteric experts within their field, might still be able to. At Visualize, the development of work processes is to a large extent carried out by the workers themselves. When asked whether she felt that the workers had any influence over the processes, one of the interviewees answered: “Absolutely! (...) After all the processes are made for us you could say. So it’s positive that it’s not something that we are supposed to be pushed into. Because then it gets a bit more, you know that’s never good. Rather it’s, I feel like we are controlling it a bit so, after what suits us (...).”. This statement summarizes what many of the employees expressed, that their influence over the work processes was an important reason as to why the processes worked in such a helpful way.

6.2.3 A pragmatic use of processes

To build on the previous section, the usefulness of Visualize’s processes can be partly explained by the concertive nature under which they have been developed. However, despite the concertive nature of the work processes, the paradox between standardization and knowledge-intensiveness remains. In the forthcoming section, we will explain how the paradox is solved at Visualize. The paradox
between standardization of work processes and the execution of knowledge-intensive work derives from the description of knowledge-work as complex, unique and ambiguous. However, Alvesson (2004) emphasizes that the degree of ambiguity and thereby knowledge-intensiveness involved in different work tasks can vary. As previously discussed, it might therefore not be suitable to make classify all work-tasks performed by an employee as either knowledge-intense or not. Rather, some tasks may be more knowledge-intensive while others may be less knowledge-intensive. For instance, deciding how to structure a new program may be considered knowledge-intensive while the coding itself may be routine, depending on the knowledge and experience held by the programmer.

Workers at Visualize emphasize that the processes are helpful and that they provide guidance in many situations. In spite of this, the workers do deviate from the processes when they deem it to be necessary, although they stress that the decision is not made without consulting colleagues first. The consequence of this flexibility is that less knowledge-intensive problems can be solved according to the designated processes, while more complex and knowledge-intensive problems can be solved using tailored solutions. We argue that Visualize has successfully implemented a bureaucratic framework, as guiding and controlling the work, whilst maintaining the knowledge-intensiveness required to solve the more unique and challenging problems that occur. The reason it works is because the employees are empowered to affect which problem, of the waiting problems, they are to solve (hence they can affect the knowledge-intensiveness of their work) and they can choose to solve the problem according to the processes and/or to seek expertise from their co-workers. Whenever the workers are forced to deviate from the processes, and in some sense ‘venture into the unknown’ they experience increased ambiguity (and knowledge-intensiveness) and seek counsel from other employees carrying more knowledge in the specific area that they are working in. In some sense this could be understood using the Lifecycle Based Theory of Leadership (Hersey & Blanchard 1974). When a worker experience low maturity in a specific task they seek guidance from other employees who carries more knowledge relevant to that specific task. This behavior derives from the emphasized spirit of teamwork and the willingness to help (cf. section 4.2), and enables the deviations.

6.3 Handing out the keys to the iron cage

6.3.1 Empowering the workers

To conclude the discussion, some employees at Visualize used to thrive in the adhocratic non-structure they used to have. They enjoyed being able to switch roles and carry out projects of their own. However, some employees also experienced work-related anxiety and stress as a result of the unclear expectations. The lack of clarity forces the workers to interpret ambiguous expectations from the environment through using the imaginary register. The interpretation results in the creation of a perceived Other, representing colleagues and management, who carries ambiguous expectations constructed by the worker herself. In contrast, bureaucracy provides expectations that are seen as more clear, which reduces the work-related anxiety and stress. The workers have extensive abilities
to affect the processes if needed (in a way similar to Barker 1993), but they are still in the form of written documents. Hence the processes provides the clear expectations of the symbolic, rather than the ambiguously perceived expectations that follows when communication is vague and the imaginary is used to construct the perceived reality. The Visualize workers are in some sense locked into an iron cage of bureaucracy, but they are empowered to through negotiation rebuild and when needed to unlock the cage. Handing out the keys to the iron cage to the workers allows for a sustained knowledge-intensiveness, while simultaneously providing the emancipatory effects of bureaucratic control.

6.3.2 The Life Cycle Theory of Followership

Another consequence of empowering the workers to choose how to be controlled can be seen in the light of Maravelias (2003) who describes the freedom of non-bureaucracy (as in the non-existence of formal rules, job descriptions and similar institutionalizations) as a double-edged sword. For an employee who is unsure about expectations and tasks it will be stressful, since they do not yet possess the knowledge and confidence, or/nor the personality, to channel the given freedom into the initiatives and actions that Maravelias suggests as a positive consequence of a non-bureaucratic environment. On the other hand more confident and experienced employees may find a lack of bureaucracy as emancipating since they are not chained by procedures and standardizations (the reason that we use the term non-bureaucracy, in contrast to Maravelias term post-bureaucracy, is that Visualize has gone from a non-bureaucratic company to a bureaucratic ditto, making the prefix post unsuitable). This reasoning can be compared to Hersey and Blanchard’s (1974) Life Cycle Theory of Leadership, where they relate the required amount of guidance to complete a task to the maturity of the worker. A more mature worker prefers autonomy and despises micro-management, while a less mature worker prefers an increased amount of guidance and instructions. The handout of the keys to the iron cage allows for the workers to decide the nature of their own followership. The Life Cycle Theory of Leadership can also be read as a guide for workers in defining their relation to control. In some sense it could be turned around and read as The Life Cycle Theory of Followership.
7. Conclusion

This section serves to summarize our findings, while also discussing our knowledge contribution, practical implications and suggestions for future research. Finally, we will reflect on limitations and bias.

7.1 Main Findings
Our findings are divided in two main areas. The first relates to the worker perception of the increased standardization of their work. The other is related to the paradox in trying to standardize work that demands the ability to handle non-standard problems.

7.1.1 Worker perception of bureaucratic control
While the Visualize workers expressed an understanding for the managerial motifs for increased bureaucratization, we desired to focus on more direct gains for the workers. What we found was that the workers experienced the standardization of the work-processes as emancipating. The clear expectations and the defined workflow relieved them of the ambiguous expectations that they prior to the bureaucratization had to construct themselves.

7.1.2 The maintaining of knowledge-intensiveness
After identifying the workers’ embrace of bureaucracy as emancipating we began to consider the compatibility between the bureaucratic standardization of work with the need of a maintained ability to perform knowledge-intensive work. We have found that Visualize have been able to maintain their knowledge-intensive ability through letting the workers influence the processes, hence the use of the term concertive control, and through empowering them to deviate from the processes when the workers deem it necessary.

7.2 Theoretical Contribution

7.2.1 Concertive Bureaucracy
The idea of concertive control is not new. However, post-bureaucratic organizations has been shown to cause stress and anxiety following ambiguous expectations. In the concertive bureaucracy the workers are actively negotiating a workflow that is put on paper, hence providing clearer expectations and reducing work-related anxiety. The key idea is to treat the standardization of the work as a support system, rather than a system of control. This is accomplished through letting the workers, who are most knowledgeable about the work, design and affect the processes.

7.2.2 The Life Cycle Theory of Followership
In order to combine the standardized work-processes with the knowledge-intensiveness required to solve non-standard problems the workers must be able to deviate from the designated processes, when they deem it necessary. As we have found, the inclination towards deviating differs among the
workers. Partly, we have linked this to the knowledge and experience (together we can read this as the maturity) of the worker, and partly to an undefined trait that we call personality. We tried to understand the inclination towards deviating by using Hersey and Blanchard’s (1974) Life Cycle Theory of Leadership. However, we have turned it around and viewed it as a Life Cycle Theory of Followership. In an analogous way to how the theory used to be read as a guide to how to lead different workers depending on maturity, it can also be used to explain worker’s inclination towards deviating from given instructions. The point is that the means of control does not have to be chosen by the management, but that if provided options the worker is able to make the choice herself.

7.3 Practical Implications

7.3.1 For the expanding knowledge-intensive firm
Expanding knowledge-intensive firms often experience an increased need for standardization of work-processes. At the same time, they need to maintain the flexibility required for knowledge-intensive problem solving capacity. For these organizations, a concertive bureaucracy may be a solution. The key aspects are to not only set up management controlled rules and processes that are to be accepted by the workers, but to actually let the knowledge-workers be in control of the processes and also to empower them to make the call on when to deviate from them. To acknowledge the varied degree of knowledge-intensiveness between tasks enables knowledge-intensive organizations to improve efficiency on more routinized tasks by introducing standardized work-descriptions. Hence, there is a possibility of combining the efficiency of bureaucracy with the creativeness required for an organization to continue to explore and improve their business concept.

7.3.2 Improved well-being for knowledge-workers
We have several times brought forth that in knowledge-intensive work the type of control that is generally advocated is normative control. This argument is based on assumptions about the (un)controllability of knowledge-intensive work and originates in a management perspective on control. Following a critical tradition on management studies, we have taken the worker perspective and found that the workers prefer to be provided a defined work-description. The clearly defined workflow provides a safe way for the workers to know that they are doing what they are supposed to. Hence, standardization of the workflow (i.e. bureaucratization of the work) relieves them of the stress and anxiety that follows in the wake of ambiguous knowledge-intensive work. In a company’s value chain it is easy to forget that decreased well-being of workers also is a cost, and the increased well-being of workers should be considered revenue. Hence, this view may be our most important finding for practical implications.

7.4 Future Research
What we would deem interesting for future inquiry is to investigate under what conditions a concertive bureaucracy is possible. We have thoughts upon cultural aspects at Visualize, as well as personality traits among the workers, that could possibly enable the successful implication of a
concertive bureaucracy. What we believe may have been the major key to the successful implication is the recruitment and socialization within the team. Another aspect is the size of the organization or unit that tries to implement concertive control. The team that we have been studying have consisted of less than 30 workers and it would be interesting to investigate how negotiation and flexibility will work in a larger context, as more workers wants their say in the process. Furthermore, the coordinating aspect will be increasingly complicated when the numbers of employees grows and these effects would also be an interesting topic for future research. However, the limited scope of this research project has forced us to leave these thoughts to future investigations.

7.5 Reflections on limitations and bias
Due to time constraints, the scope of our study was limited. With more time at our hands, we would have been able to perform additional interviews, in order to explore some of the themes in our analysis further. Moreover, it is important to note that our personal knowledge of the work activities performed within the studied team is, mildly expressed, wanting. Again due to time constraints, we have not been able to study the work processes in practice to any greater extent. Rather, our assumptions regarding the character and execution of work at Visualize has been heavily influenced by the statements of our interviewees. We do believe that our interviewees gave an honest and reflective impression by acknowledging different aspects of the discussed themes, good as well as bad. However, it is important to note that all aspects essential to the study may not have surfaced during the interviews. Furthermore, our interpretations of our correspondents answers have surely been influenced by our assumptions and views on the world, some of which we may not be aware of. For instance, it is possible that our overall critical stance towards the function of management may have created a desirability bias where we wish to raise the importance of workers and downplay the role of management.
8. Reference List


Organization Studies, 21(1), 141-161
Organization, 11(1), 5-12
Intuition to Institution. The Academy Of Management Review, (3), 522
struggle Power and resistance in Organizations 28-46
control. Human Relations, 64(2), 177-200
samhällsvetenskapliga ämnen. Lund: Studentlitteratur AB
Identification in a Knowledge-Intensive Firm. Organization, 11(1), 149-175
Management Control in the Work Settings of Professionals. International Studies Of  
Management & Organization, (2), 70
processer, Studentlitteratur, Pozkal
Copenhagen Business School Press, Copenhagen
Organizational Change Management, 16(5), 547-566
Organization, 19(2), 105-123
Newell, S., Robertson, M., Scarbrough, H., Swan, J. (2009). Managing Knowledge Work and  
(1), 14
Mechanisms. Management Science, 25(9), 833-848


Appendix 1: Article

Artikeln är avsedd att publiceras i en tidning riktad mot chefer, såsom Chef, Civilekonom eller Personal & Ledarskap.

**Chefer - Släpp taget!**


De senaste 20 åren har dock kritiskt inriktade organisationsforskare ifrågasatt denna påstådda självständighet. Det har hävdats att självständighet alltid är villkorad, med förutsättningen att arbetaren levererar önskat resultat. Avsaknad av arbetsbeskrivningar och tydliga förväntningar riskerar dessutom att orsaka stress, och på sikt också sjukskrivningar, till följd av att den anställde upplever förväntningar från omgivningen men inte med säkerhet kan säga vilka dessa är. Det förekommer i den akademiska litteraturen också elaka liknelser där värdegrundsarbete och till synes harmlösa aktiviteter på arbetsplatsen kallas för hjärntvätt. Även om mycket av den akademiska litteraturen lätt avfärds av utbildade profetor i domedagsklass, skrivna av teoretiker utan erfarenhet av verklighetens komplexitet, så finns det både poängen och lösningar.

**Medarbetarkontrollerad verksamhet**

Organisationsstudenterna Maria Wetterberg och Erik Schultz har som sitt examensarbete studerat ett mjukvaruutvecklande företag som går under pseudonymen Visualize. Företaget har på senare år kraftigt expanderat och för att kunna behålla så hög effektivitet som möjligt ansåg de sig tvingade att införa standardiserade processer. Detta dels för att kunna upprätthålla den koordination som de anställda tidigare kunde lösa genom direkt kommunikation, men också för att snabbt få nyanställda att bidra på ett effektivt sätt. Utmaningen som
upptäckte var hur standardiserade processer skulle kunna kombineras med konkurrenskraftiga nyutveckling och problemlösning, något som traditionellt förknippas med medverkan av jobb som är självständiga och kreativa arbete.

Visualize har löst utmaningen genom att vara lyhörda för de anställdas behov. Processerna har standardiserats med avsikten att vara en tillgång för dem anställda, snarare än något som ska begränsa dem. De anställda har därför fått stora möjligheter att engagera sig i utvecklingen av arbetsgången, något som de utnyttjar i varierande grad. En stor fördel detta bär med sig att de som har störst kunskap om arbetet också är de som får bestämma hur arbetsgången ska se ut både för dem själva och för nykomlingar på arbetsplatsen.


Vinster med medarbetarstyrning


Detta gör att en anställd som upplever en stressande tvetydighet i arbetet kan gå till sin arbetsbeskrivning för att säkerställa att hen lever upp till förväntningarna. På så vis kan den anställda också fly den arbetsrelaterade stressen, utan att för den sakens skull stoppa huvudet i sanden.

De anställda på Visualize markerade också tydligt ett missnöje mot vad de upplevde som indoktrineringsförsök av företagets värderingar. Dessa sågs som självklarheter och försöken att inpränta dem i de anställda sågs i bästa fall som tramsiga, i värsta fall som slöseri med tid. Ställt mot denna verklighet har de införda processerna upplevts som klart ärligare. Något som motsäger upplevelsen att den moderna (kunskaps)arbetaren föredrar att agera självständigt och med värderingar som enda styrning.


Förutsättningar för medarbetarstyrning

I sitt arbete har Maria och Erik lyft fram förutsättningarna för medarbetarstyrning som ett område för framtida forskning. De föreställer sig dock rekrytering och socialisering som centrala aspekter. Frihet under ansvar är ett klassiskt motto och de anställdas vilja att ta ansvar för och engagera sig i verksamheten är rimligen en förutsättning. Om förutsättningarna finns kan
detta mycket väl vara framtidens sätt att styra verksamheten. Så chefer, det är dags att släppa taget!