

**Uncertainty and Influence:
Involving Frontline Professionals in
Organizational Decision-Making**

Mathias Rask Østergaard-Nielsen

Uncertainty and Influence:
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Organizational Decision-Making

PhD Dissertation

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Mathias Rask Østergaard-Nielsen
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Chapter 1.

Introduction

The concept of employee involvement in organizational decision-making has gained renewed attention in the public administration and public management literatures with the emergence of new governance models such as New Public Governance and Internal Learning Regimes (e.g., Jakobsen, Bækgaard, Moynihan & van Loon, 2018; Torfing, Andersen, Greve & Klausen 2020).¹

A key component in these governance models is the involvement of front-line professionals in organizational decision-making, for instance nurses, physicians, teachers, social workers, therapists, and police officers. The argument for involving them is that their expert knowledge and information can help public managers and organizations overcome complexities and uncertainties originating from, for instance, wicked problems, such as crises, and the extensive use of performance feedback in modern public organizations (e.g., Ansell, Sørensen & Torfing 2017; 2021; Jakobsen, et al. 2018; Livingstone 2022; Moynihan, Bækgaard & Jakobsen 2020; Torfing et al. 2020). Involving front-line professionals in organizational decision-making can enable better utilization of the information and knowledge that reside at the frontline of organizations, which can in turn improve a number of employee outcomes and ultimately organizational decisions and performance (e.g., Andrews, Boyne, Law & Walker 200, Ansell, Sørensen & Torfing 2017; 2021; Jakobsen et al. 2018; Somech 2010).

However, we know from the broader literature on employee involvement in decision-making that it is far from certain that involving employees in decision-making improves employee outcomes and performance (see for instance Heller et al. 1998; Heller 2003; Wagner 1994). One key explanation is that the outcomes of employee involvement are conditional on situational and contextual circumstances (Andrews et al. 2009; Grissom 2012; Jakobsen et al. 2018; Latham et al. 1994; Locke et al. 1997; Simon 1997, p. 205; Somech 2010; Wang & Yang 2015; Wagner & Gooding 1987). Indeed, some of these situational and contextual circumstances may serve as barriers for involvement of frontline professionals in organizational decision-making in the public sector.

To contribute to our knowledge about how involvement of frontline professionals in organizational decision-making unfolds in the public sector, this dissertation points to two factors that we need to understand better: One is

¹ Some studies use the term involvement; others use the term participation. Participation sometimes implies that employees and managers share the same level of influence, and to avoid this, the term involvement is used throughout this dissertation.

related to those who are to involve – the public managers – and one is related to those who are to be involved – the frontline professionals.

First, frontline managers in public organizations function as gatekeepers in the sense that they decide the extent to which frontline professionals are involved in organizational decision-making. Public managers often face conditions with a lot of uncertainty tied to organizational decision-making, in the shape of their incomplete information about the range of possible decisions and the potential consequences of these decisions, due to the complexity of public service delivery (e.g., Hammond 1993, Ostrom, Parks, Whitaker & Percy 1978, Jones 2003; March & Simon 1993; Raaphorst 2018; Rainey 2014; Simon 1997). An implicit assumption in the emerging governance models is that frontline managers will respond to these conditions of uncertainty by involving frontline professionals in organizational decision-making, which should make it possible to reduce some of the uncertainty in the decision-making process and in turn improve a number of employee outcomes and ultimately organizational decisions and performance. However, if frontline managers are not inclined to involve frontline professionals directly in organizational decision-making when facing conditions of uncertainty, the expected positive effects from employee involvement in organizational decision-making might not materialize. Improving our understanding of the extent to which conditions of uncertainty affect frontline managers' involvement of frontline professionals in organizational decision-making is thus an important contribution.

Second, the complexity of service delivery in the public sector means that services are delivered by professionals, that is, employees with some level of specialized, theoretical knowledge combined with intra-occupational norms (e.g., Andersen & Pedersen 2012, 48; Jakobsen et al. 2018). In the emerging governance models such as New Public Governance and Internal Learning Regimes, the fact that the employees are professionals is one argument for involving them in organizational decision-making, because it is expected to make it possible to utilize their specialized, theoretical knowledge (e.g., Jakobsen et al., 2018; Torfing et al., 2020). However, their professional norms and discretion may play a central role in how they perceive and benefit from the higher levels of influence that come with being involved in organizational decision-making. Considering the centrality of the frontline professionals in the public sector and their role in the emerging governance models, investigating this aspect is an important contribution.

The research question of the dissertation is dual: To what extent do conditions of uncertainty affect public frontline managers' direct involvement of frontline professionals in organizational decision-making, and how does the

fact that many public employees are professionals affect how they perceive and benefit from having more influence on organizational decisions?

To examine the first part of the research question, the dissertation argues that frontline managers facing conditions of uncertainty will try to reduce this uncertainty by increasing the amount of information and knowledge available to them by involving frontline professionals in organizational decision-making. First, because involving them makes it possible to “seek and synthesize multiple sources of information and perspectives” (Kelman et al. 2016: 466), and second, because “[m]ultiplicity copes with the inevitability of omission and other errors in complex problem solving” (Lindblom 1965: 151). Thus, involving more individuals in decision-making increases information as well as processing capabilities (Lindblom 1965, March & Simon 1993).

The dissertation focuses on two situations with uncertainty about the range of possible decisions to make and the potential consequences of these decisions – one internal and one external. The internal condition concerns organizational decisions in response to performance feedback. Here the dissertation builds on the insight from the performance feedback literature that performance feedback is a central driver of decision-making (e.g. Cyert & March 1992; Meier, Favero & Zhu 2015, Nielsen 2014) and argues that uncertainty stemming from performance feedback will make managers involve frontline professionals in organizational decision-making.

The external condition concerns organizational decisions in response to crises (Christensen, et al. 2016, p. 888; Weible et al., 2020, p. 228; see also Rosenthal, Charles, & ‘t Hart, 1989). The dissertation argues that the amount of specialized theoretical knowledge and information required to make decisions in response to crises makes the frontline managers involve frontline professionals more in organizational decisions to draw on their knowledge and information.

To examine the second part of the research question, the dissertation argues that the fact that the employees are professionals matters in two ways. First, it argues that frontline professionals’ perception of the involvement process is shaped by their perception of whether the benefits of more influence on organizational decisions outweigh the transaction costs (e.g., Coase 1937; Williamson 1975; 1985), and that frontline professionals do not automatically perceive more influence over organizational decisions as beneficial.

Second, it argues that the varying levels of discretion that frontline professionals from different professions possess (e.g., Andersen & Pedersen 2012) put them in markedly different positions in terms of how they benefit from the increased influence from being involved in organizational decision-making. More specifically, it argues that frontline professionals from professions with

lower levels of discretion will benefit more from greater influence in the specific organizational decision-making process of organizational goal prioritization, in terms of decreasing their perceived organizational goal conflict and increasing their job satisfaction, compared to frontline professionals who are part of a profession with higher levels of discretion. This is because frontline professionals with lower levels of discretion generally have fewer opportunities to voice concerns and affect organizational decisions than frontline professionals with higher levels of discretion.

Figure 1 provides an overview of the arguments of the dissertation, which are examined in four empirical papers listed in Table 1. Three of the papers are single authored and one (Paper D) is co-authored with Mickael Bech.

Figure 1. Project model and overview of papers in the dissertation

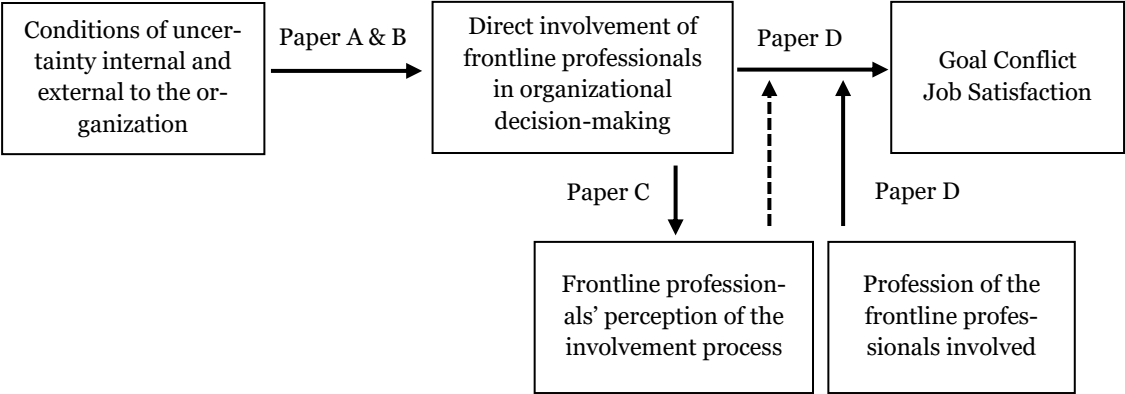


Table 1. Titles of papers in the dissertation and their publication status

| Paper | Publication status |
|---|--|
| A Østergaard-Nielsen, Mathias R. (n.d.). Does performance feedback drive public managers’ inclination to involve frontline professionals in organizational decision-making? Evidence from a conjoint experiment | Working paper |
| B Østergaard-Nielsen, Mathias R. (n.d.). Managerial Decision-Making in Public Organizations in Response to Crisis: Centralization or Involvement? | Invited for a revise and resubmit in <i>Public Management Review</i> |
| C Østergaard-Nielsen, Mathias R. (n.d.). Through the eyes of the involved: How types of influence shape frontline professionals’ perception of involvement in organizational decision-making | Working paper |
| D Østergaard-Nielsen, Mathias R. & Mickael Bech. (n.d.). Does Employee Profession Moderate the Impact of Employee Involvement in Decision-Making on Employee Outcomes? A Panel Analysis | Under review |

The remainder of this summary report is structured as follows. Chapter 2 explains the concept of direct employee involvement in organizational decision-making and discusses how the concept relates to and differs from concepts

such as empowerment, distributed leadership, and collective bargaining. It also lays out the main arguments for and against involving employees in organizational decision-making and reviews important empirical studies. Importantly, the chapter makes it clear that this dissertation focuses on the non-statutory, immediate, personal involvement of frontline professionals in organizational decision-making, and that organizational decision-making includes decisions regarding what the organization does (e.g., goal prioritization) and how it does it (e.g., deciding on the structure of organizational work processes). Organizational decisions thus affect the entire organization, or part of it, rather than being directly concerned with individual employees or their individual work-related decisions.

Chapter 3 summarizes the theoretical framework of the dissertation and develops three main theoretical arguments. The first argument is that increased uncertainty from internal and external conditions increases managers' involvement of frontline professionals in organizational decision-making. The internal condition in focus is performance feedback, and the external condition is crisis. The second argument is that the type of influence frontline professionals are offered in relation to proximal and distal organizational decisions affects the extent to which they perceive the involvement process to be beneficial, and that frontline professionals do not automatically perceive more influence over organizational decisions as more beneficial. The third argument is that employees who are part of a profession with lower levels of discretion will benefit more from increased levels of influence over organizational goal prioritization when it comes to increasing job satisfaction and decreasing perceived goal conflict, compared to employees who are part of a profession with higher levels of discretion.

Chapter 4 introduces the research setting, data and designs used in the dissertation. It starts by presenting three reasons why Danish Public hospital departments are a fitting empirical setting to test the three theoretical arguments: First, frontline managers are used to being exposed to uncertainty in relation to the external condition of crisis and to the internal condition of performance feedback. Second, Danish public hospital departments deliver complex services to citizens, and their employees are professionals. Third, Danish public hospital departments employ frontline professionals from different professions with varying degrees of discretion due to varying degrees of specialized theoretical knowledge and occupational norms. The chapter presents the data and research designs used in the four research papers. It argues that the nature of the theoretical arguments requires research designs that make it possible to make causal claims, which is the reason for using a variance-based and quantitative methodological approach. Two of the designs are survey-based experiments, and two are time and unit fixed effects panel analyses of

survey data. The chapter furthermore discusses some of the drawbacks of using these designs.

Chapter 5 presents the main findings of the dissertation from the four papers. The main findings in Paper A and Paper B are that situations of internal (performance feedback) and external (crisis) uncertainty about the range of possible decisions and their potential consequences make frontline managers involve frontline professionals in organizational decision-making. The main finding in Paper C is that frontline professionals perceive consultation to be more beneficial than joint decision-making, whether the organizational decision is proximal or distal to daily work tasks. The main takeaway from Paper D is that the effect of involvement of frontline professionals in goal prioritization on perceived organizational goal conflict is moderated by the profession of the frontline professionals, i.e., the effect is strong for frontline professionals with low levels of discretion and non-existent for frontline professionals with high levels of discretion.

Chapter 6 discusses the contributions of the dissertation and points towards new avenues for research originating both from its limitations and its findings. The chapter concludes with some practical implications.

Chapter 2. Conceptualization, related concepts, and a literature overview

Conceptualizing direct involvement of frontline professionals in organizational decision-making and related concepts

The focus of this dissertation is direct involvement of frontline professionals in organizational decision-making in public organizations. Frontline professionals are part of professions that have some level of specialized theoretical knowledge and intra-occupational norms that guide and regulate their behavior (Andersen & Pedersen 2012). Organizational decision-making is central in all public organizations and includes, but is not limited to, strategic decisions regarding what the organization does (e.g., organizational goal prioritization) and operational decisions regarding how it does it (e.g., decides on the structure of organizational work processes). Organizational decision-making ultimately affects what services are delivered to the users and how by shaping the organizational environment in which frontline professionals operate (e.g., Barnard 1938, Jung 2018, March & Simon 1993, Simon 1997, Rainey 2014). Organizational decisions affect the entire organization, or part of it, rather than being directly concerned with individual employees or their individual work-related decisions.

In the broadest sense, employee involvement can be understood as a process in which influence is shared between managers and subordinates (e.g., Wagner 1994). Dachler and Wilpert (1978) and later Cotton and colleagues (1988) argued that employee involvement can be seen as consisting of three dimensions. The first dimension encapsulates whether the involvement process is formal, based on an “explicitly recorded, system of rules and agreements imposed on or granted to the organization”, or informal, based on “non-statutory, consensus emerging among interacting members” (ibid. 10). The second dimension encapsulates whether employee involvement is direct, i.e., “immediate, personal involvement of organization members in decision-making”, or indirect, i.e., “mediated involvement of organization members in decision-making through some form of representation” (ibid. 12). The third dimension is a continuum of the degree of influence that is given to employees in decision-making, which ranges from no influence to delegation (ibid.). Delegation means that the authority to make a decision is put in the hands of the employees. Following Yukl, the continuum also encapsulates consultation and joint decision-making. Consultation means that a manager asks employees for

input before making a decision; joint decision-making means that a manager makes a decision together with employees, and manager and employees have an equal say regarding the decision (2006: 115).

This dissertation focuses on direct, informal involvement of frontline professionals in organizational decision-making in the public sector which is the form of involvement in focus in the emerging governance models. More explicitly related to the dimensions mentioned above, it is concerned with the non-statutory, immediate and personal involvement of frontline professionals in organizational decision-making by frontline managers. In terms of degree of influence, the dissertation focuses on situations from no influence over consultation to joint decision-making. The reason for focusing on these levels of influence, is that the focus is on organizational decisions and not decisions focused directly on the individual employee or directly on the individual employee's working decisions. Influence corresponding to delegation is furthermore a less plausible type of influence when it comes to organizational level decisions.

Delegation of decision-making authority to frontline employees is also more related to the literature on employee empowerment, where empowerment, among other things, provides employees with more decision-making authority and discretion or autonomy to change their own work processes and to make individual work-related decisions (e.g., Fernandez and Moldogaziev 2011; 2013a; 2013b; 2015; Hassan, Raadschelders & Park 2019; Pitts 2005). The empowerment literature also argues that managers should provide employees with information about the organization's performance, rewards based on performance, and knowledge that allows them to understand and contribute to the organization's performance (e.g., Fernandez & Moldogaziev 2013a). Even so, some studies of empowerment include employee involvement in organizational decision-making in the broader concept (e.g., Kang, Park & Sorensen 2021; Hassan, Wright & Park 2016).

Another related strain of literature is the one concerned with collective bargaining and unionization. In terms of involvement, collective bargaining is formal and mediated involvement of employees through union representatives. In terms of level of influence, there are laws for instance in Denmark that decide in which decisions employees, through union representatives, are consulted or engage in joint decision-making with management (e.g., Jensen 2004; Hansen 2015; Navrbjerg 2005). This literature is primarily concerned with how unions and union representatives can shape and affect the organizational environment and organizational performance, for instance through collective bargaining (e.g., Anzia & Moe 2015; Bjørnholt, Boye & Hansen 2021; Davis 2011; 2013a; 2013b; Moe 2009; Nicholson-Crotty, Grissom & Nicholson-Crotty 2012; Oberfield 2021; Petersen 2021), i.e., employee involvement

at a representative and often aggregated level and not direct informal involvement of frontline professionals in organizational decision-making.

There is also a growing interest in the public administration and public management literatures in concepts such as shared leadership and distributed leadership. However, distributed leadership, “the phenomenon that leadership tasks and functions are distributed among employees with the aim to organize social, conjoint actions between or within organizational levels” (Jakobsen, Kjeldsen & Pallesen 2021, 3; see also Jønsson et al. 2016) is a broader concept than employee involvement in organizational decision-making. Distributed leadership comprises many types of leadership behavior, cannot be reduced to leaders and followers, and is not necessarily initiated by managers but also by employees (*ibid.*). Thus, although related, distributed leadership is a broader concept than direct employee involvement in organizational decision-making.

What we know about direct employee involvement in organizational decision-making: A literature overview

The notion of involving employees in decision-making has been a research topic within management, organizational psychology, and public administration for many decades (Cotton et al. 1988; Heller et al. 1998; Heller 2003; Kim 2002; Wagner 1994). Theoretically, it is argued that direct involvement of employees in organizational decision-making can ultimately improve organizational performance through a motivational and a cognitive mechanism (e.g., Latham, Winters & Locke 1994; Sagie et al. 2002; Somech 2010). The key notion in the motivational mechanism is that sharing influence with employees by involving them in decision-making gives them a sense of having a more meaningful role, a stronger sense of belonging, and a voice in the organization (e.g., Grissom 2012; Kim 2002; 2005; Somech 2010; Wright and Kim 2004). In theory, this should increase job satisfaction, commitment and motivation among employees and reduce turnover (e.g., Grissom 2012; Hansen & Kjeldsen 2018; Somech 2010; Staniok 2017; Wright and Kim 2004).

The cognitive mechanism focuses on information and knowledge sharing between managers and employees (e.g., Latham, Winters & Locke 1994; Somech 2010). Involving employees in decision-making allows managers and employees to share knowledge and information and engage in collective decision-making processes (e.g., Boyne et al. 2004; Jakobsen et al. 2018; Latham, Winters & Locke 1994; Somech 2010; Staniok 2017). The flow of information between managers and employees is argued to lead to better organizational decisions and create alignment between managers and employees (*ibid.*).

Despite these optimistic theoretical arguments, the empirical evidence is less positive. A meta-analysis of the generic management and organizational psychology literature on the broader concept of employee involvement in decision-making only found very small positive significant effects on performance and job satisfaction (Wagner 1994). Some public administration and public management studies show that employee involvement in organizational decision-making has a positive relationship with outcomes such as job satisfaction (e.g. Kim 2002, Wright & Kim 2004, Wang & Yang 2015), commitment (Hansen & Kjeldsen 2018, Staniok 2017), managerial trustworthiness (Pedersen & Stritch 2018a) and learning (Moynihan & Landuyt 2009), but some studies find a negative relationship with outcomes such as commitment (Jung & Ritz 2014) red tape (van Loon & Jakobsen 2022), implementation of performance management (Destler 2017) and organizational performance (Pasha 2018). Other studies find no effect from involving employees in decision-making (Favero, Meier & O'Toole 2016).

There are good explanations for negative effects of employee involvement in organizational decision-making. For instance, in her qualitative material, Destler (2017) finds that the involvement process reveals conflicting views internally between employees in the organization and between employees and managers, which undermines the implementation of performance management. Thus, employee involvement can be a catalyst for conflict instead of information and knowledge sharing. Pasha (2018) argues that the reason for the negative effect on performance of employee involvement in goal setting might be that employees tend to set relatively easier goals, i.e., use their superior knowledge and information to foster their self-interest and shirk (Brehm & Gates 1997). Relatedly, but less pessimistically, Jakobsen et al. (2018) argue that involving frontline professionals in the organizational decision-making process of goal setting might increase performance on dimensions aligned with professional norms and decrease performance on other dimensions.

Studies indicate that whether the positive or negative effects of employee involvement in decision-making materialize is conditional on different contextual and situational circumstances (e.g., Wagner & Gooding 1987; see also Somech 2010). Andrews et al. (2007) find that the effect of employee involvement in organizational decision-making on organizational performance is conditional on the strategy of the organization, so that there is only a positive effect of employee involvement in decision-making on organizational performance when the organization has a strategy focused on searching for new opportunities and on experimenting with new solutions. Wang and Yang (2015) find that the effect of informal employee involvement in decision-making on job satisfaction is moderated by career development and interpersonal rela-

tionships. The effect of employee involvement in decision-making on job satisfaction increases if there are better personal relationships between the employees, and it decreases if there is a higher level of career development. They argue that good interpersonal relationships can mitigate the negative effects of conflict, which may surface when employees are involved in organizational decision-making. Grissom (2012) finds that the effect of involving employees in decision-making on retention is moderated by how the employees perceive the effectiveness of the manager, meaning that retention increases when the employees perceive the manager to be effective, as the involvement of employees increases and vice versa. He argues that when a manager is perceived as ineffective, employees might feel that they have to stand in for the manager in terms of making organizational decisions. This is aligned with other studies indicating that employees are not necessarily interested in having too much influence on organizational decisions because they see organizational decision-making as management's job and being too involved puts too much strain on them (Petter 2002; Somech 2010). Finally, scholars have argued and found that employee involvement in organizational decision-making seems to be most effective when used as a vehicle for information and knowledge sharing. In other words, it seems that the cognitive mechanism is most effective, and that it produces positive results on outcomes linked to information and knowledge sharing (Latham et al. 1994; Locke Alavi & Wagner 1997; Somech 2010). In terms of the effects, it can be concluded from the literature overview that there can be both positive and negative effects of employee involvement in organizational decision-making, and that whether the positive or negative effects materialize, depends on situational and conditional circumstances.

As shown in the overview, the literature is mainly concerned with the effects of employee involvement in organizational decision-making. A few studies are however concerned with the antecedents of employee involvement. Yukl and Fu (1999) and Leana (1987) found that managers differentiate between involving employees in decision-making and delegating decision-making authority to employees. Building on these insights, Hassan and colleagues (2016) find a positive relationship between employees' previous level of task performance and employees' experience of being delegated decision-making power. Furthermore, they find a positive relationship between employees' learning behavior and their experience of being consulted. Ashmos, Duchon and McDaniel, Jr. (1998) find that managers in organizations with lower levels of past performance and in organizations that are less concerned with rules involve employees more in decision-making. Nicholson-Crotty and colleagues (2017) draw on risk aversion theory (e.g., Kahneman & Tversky 1979) to argue and find that involving employees is a risky strategy that frontline managers

are ready to accept when they are failing to reach or have exceeded organizational goals, compared to when they have reached them. Finally, in an exploratory study among senior government executives, Kelman and colleagues (2016) find that decision-makers will seek advice from employees when they face complex decisions, but not when they face decisions that require courage.²

The next chapter summarizes the theoretical framework and main theoretical contributions of the dissertation, combining some of the insights and studies presented in this chapter with other theories and strains of literature.

² There are also a few studies that look at antecedents of discretion or empowerment. Langbein (2000) and Pitts (2005) look at antecedents of discretion, while Park and Hassan (2018) and Kang, Park and Sorensen (2021) investigate antecedents of the broader concept of empowerment.

Chapter 3. Theoretical framework

Uncertainty and why it might be an important driver of involvement of frontline professionals in organizational decision-making

The first part of the research question in this dissertation is: To what extent do conditions of uncertainty affect public frontline managers' direct involvement of frontline professionals in organizational decision-making? The overall theoretical argument related to this part of the research question, which is also presented in Paper A and Paper B, is that when managers face conditions of uncertainty in the shape of incomplete information about the range of possible decisions and the potential consequences of these decisions, they will involve frontline professionals in decision-making to increase the amount of available knowledge and information and the overall processing capacity.

This argument builds on the notion of Simon's scissor (Simon 1990; see also Bendor 2010: 2-3), where one blade represents the bounded rationality and satisficing nature of the decision-maker, and the other blade represents the uncertainty derived from the complexities of the environment (Bendor 2010; Jones 2003; Simon 1997). Bounded rationality posits that even though decision-makers are goal-oriented and intentionally rational, they are not able to reach optimal decisions because of the general limitations of human cognition (Simon 1997, Jones 2003). The satisficing element captures that instead of pursuing optimal decisions, decision-makers pursue decisions they deem satisfying and sufficient – they satisfice (Simon 1997). The complexities of the environment in which boundedly rational decision-makers make decisions create uncertainty in relation to decision-making in the form of an information problem. That is, the manager lacks information about the range of possible decisions in a given decision-making process and the potential consequences of these potential decisions (Jones 2003; Raaphorst 2018; Simon 1997). Uncertainty is thus related to the causal factors of the problem and of the decision at hand (Jones 2003). The notion is that the scissor only cuts when the required decisions are complex and thus uncertain, because bounded rationality is not a problem when decisions are not complex and uncertain.

Managers aim to reduce uncertainty in decision-making by searching for information that makes it possible for them to make a decision that they deem

satisfying and sufficient (e.g., Cyert & March 1992; March & Simon 1993; Simon 1997). The dissertation argues that they will search for this information among frontline professionals. The theoretical argument in the dissertation, which draws on the argument by Lindblom adopted by Kelman and colleagues, is that frontline managers will seek to reduce uncertainty by involving employees in organizational decision-making in order to “seek and synthesize multiple sources of information and perspectives” (Kelman et al. 2016, p. 466) and because “[m]ultiplicity copes with the inevitability of omission and other errors in complex problem solving” (Lindblom 1965, p. 151). Frontline employees possess more knowledge and information than managers about how the organization functions and what does and does not work (e.g., Aghion & Tirole 1997; Brehm & Gates 1997). Given the complexity in service delivery, the employees who work in public organizations are, as mentioned, often professionals (Jakobsen et al. 2018). They are specially trained for their jobs, have knowledge about specific work processes in the organization (March & Simon 1993), and have specialized theoretical knowledge acquired through their education (e.g., Andersen & Pedersen 2012).

By involving frontline professionals in organizational decision-making, managers can obtain knowledge and information from them and engage in collective decision-making with them (e.g., Staniok 2017; Jakobsen et al. 2018). The information and increased processing capabilities should in turn reduce uncertainty regarding the range and consequences of possible decisions.

Uncertainty and the information-influence trade-off

When managers involve frontline professionals in organizational decision-making, the latter expect to be offered some level of influence in return for the information, knowledge, and time they invest in the decision-making process (e.g., Heller et al. 1998; Heller 2003). The literature review in Chapter 2 made it clear that involving and giving frontline professionals influence in organizational decision-making can potentially be a risky strategy from the manager’s point of view. Frontline professionals might have an agenda that is not aligned with the goals of the political or managerial principals (e.g., Brehm & Gates 1997; Jakobsen et al 2018; March & Simon 1993; Moe 1984). Frontline professionals in public organizations often possess strong professional norms and knowledge that they can potentially exploit to pursue their own goals (Andersen & Pedersen 2012; Jakobsen et al. 2018; Moynihan et al 2019) and can be considered strong stakeholders when involved in organizational decision-making (Cyert & March 1992). Thus, involving them can potentially give rise

to conflict instead of information and knowledge sharing (Destler 2017; Wang & Yang 2015).

Therefore, managers have to consider the trade-off between involving frontline professionals to obtain information and knowledge and increase processing capabilities to reduce uncertainty, and the potential risk associated with giving them more influence on organizational decisions. However, decision-makers are inclined to accept larger risks when they face uncertainty and are in a loss domain because they want to change the situation (Kahneman and Tversky 1979). Nicholson-Crotty and colleagues (2017) have investigated managers' risk aversion in public organizations and find a U-shaped relationship between performance and risk tolerance, meaning that managers are more inclined to engage in risky strategies, such as employee involvement, when they perform below or above their aspirational threshold.

Thus, the general argument presented here, expects that the more uncertainty in relation to the decision-making process, the more managers involve frontline professionals in decision-making. To make the above argument testable, the next sections introduce an internal condition (performance feedback) and an external condition (crisis) that both require decision-making and include variation in uncertainty for the frontline managers.

Uncertainty from performance feedback

As argued in Paper A, one recurring internal condition, and perhaps one of the most observed, that creates a need for decision-making under conditions of uncertainty for public managers is feedback about goal attainment, i.e., performance feedback (e.g., Cyert & March 1992; Nielsen 2014; Meier et al. 2015). Managers pursue many different organizational goals and continuously receive feedback on whether they reach these goals in relation to social and historical aspirations. The key theoretical contribution of Paper A is to explain how and to what extent each element of performance feedback – type of feedback, type of aspiration and type of organizational goal – creates uncertainty for the manager and thus affects whether they involve frontline professionals in organizational decision-making.

Regarding type of feedback, Paper A builds on three types of performance feedback to managers: they reach, exceed or fail to reach organizational goals. The third type of feedback indicates that the organization is not performing well, and that the manager needs to make decisions about what the organization can do differently to reach its goals in the future (e.g. Cyert & March 1992; Nielsen 2014; Nicholson-Crotty et al. 2017; van der Voet 2022, Salge 2011). To that end, the manager needs to search within the organization for new information and knowledge in order to make the necessary decisions to make

changes (e.g. Cyert & March 1992; Nielsen 2014; Salge 2011). Due to the number of different potential decisions to make and the consequences of these potential decisions the manager needs a lot of information. Thus, receiving feedback that the organization fail to reach its goals are situations with more uncertainty than situations where the organization is reaching or exceeding its goals. The desire to decrease this uncertainty will make the manager involve frontline professionals (Paper A).

Regarding aspiration, Paper A draws on the notion that in order for managers to know whether they reach, exceed or fail to reach organizational goals, they pay attention to aspirations (e.g. Cyert & March 1992; Salge 2011; Nielsen 2014) which is “the smallest outcome that would be deemed satisfactory by the decision maker” (Schneider 1992: 1053). These can be divided into historical aspirations, which focus on the organization’s past goal attainment, and social aspirations, which refer to comparable organizations’ goal attainment (Cyert & March 1992; Nielsen 2014; Salge 2011). As argued in Paper A, decisions that require information about how other organizations function compared to decisions that require information about how the managers own organization works involve more uncertainty. That is, it is expected that decision-making in response to feedback on a social aspiration implies more uncertainty than decision-making in response to a historical aspiration, regardless of the type of feedback. Therefore, it is expected that managers will be more inclined to involve frontline professionals in decision-making in response to feedback tied to social aspirations compared to historical aspirations (Paper A).

Regarding organizational goals, Paper A draws on the notion that public organizations pursue multiple organizational goals (Dixit 2002) tied to different parts of the input-output-outcome chain (e.g., Boukaert 1993; Boyne 2002; Mikkelsen 2018, 2021; Ostrom et al. 1978; Holm 2018a, 2018b; Walker et al. 2018). The type of goal on which managers receive feedback, regardless of the type of feedback, may also create uncertainty for them. The closer the organizational goals are to the “end” of the input-output-outcome chain, the harder it is for the manager to overcome the so-called attribution problem, i.e., determination of the causes of outcomes (Bovaird 2014: 4). The amount of knowledge and information needed to make decisions that can affect goal attainment increases, and the decision-making process becomes more uncertain the further along the chain the goal is situated, thus increasing the manager’s inclination to involve frontline professionals in the decision-making process (Paper A).

Uncertainty from crisis

Paper B focuses on crises, an external condition with varying degrees of uncertainty that creates a need for decision-making. The reason for this focus is that society, and thus public organizations and frontline managers, is increasingly exposed to crises (e.g., Boin & 't Hart, 2003, Boin & Lodge, 2016). Crises can be defined as situations “in which there is a perceived threat against the core values or life-sustaining functions of a social system that requires urgent remedial action in uncertain circumstances” (Rosenthal, Charles, & 't Hart, 1989, p. 10.). When public organizations are exposed to a crisis, public managers at the frontline have to respond directly to the crisis and to decisions made at the political level in order to alleviate potential negative effects to the organization (e.g. Boin & 't Hart, 2003; Boin & Lodge, 2016; Zhang et al. 2018). Crises require frontline managers to make both strategic and operational organizational decisions (see 't Hart et al., 1993). As mentioned in Chapter 2, strategic organizational decisions are concerned with “what” the organization does, which includes its overall goals, priorities, and direction, while operational organizational decisions concern “how” the organization functions (see also Jung 2018; March & Simon 1993; Simon 1997). Crises create urgency to act coupled with uncertainty regarding what causes the crisis, what the best course of action to deal with the crisis is, and the potential consequences of those choices (Christensen, et al. 2016, p. 888; Rosenthal et al. 1989; Weible et al., 2020, p. 228). In the crisis management literature, the centralization thesis proposes that in response to crises, decision-makers will centralize decision-making authority in order to speed up decision-making by reducing transaction costs and thus complexity (e.g., 't Hart, Rosenthal & Kouzmin, 1993).

The key theoretical contribution of Paper B is the argument that at the frontline of public organizations, centralization is not a viable strategy. In the paper it is argued that the potential pros and cons of centralizing decision-making compared to involving frontline professionals can be viewed along two dimensions. On the one hand, centralizing decision-making speeds up the decision-making process by reducing transaction costs and complexity because the decision is taken by fewer individuals (e.g., Boin & McConnell, 2007; Boin et al., 2017; Drennan et al., 2015; Schomaker et al., 2021, p. 1281; 't Hart et al., 1993). On the other hand, leaving individuals out of the decision-making process means leaving out their information and knowledge. Thus, there is a trade-off between speed, which can fulfill the need for urgency, and information, which can reduce uncertainty.

The expectation is that at the frontline of public organizations, the need for specialized theoretical knowledge to be able to make both strategic and

operational organizational decisions in response to crises, means that front-line managers will not centralize decision-making but instead involve front-line professionals in operational and strategic organizational decisions to reduce uncertainty (Paper B).

Frontline professionals and influence

The second part of the research question is: How does the fact that many public employees are professionals affect how they perceive and benefit from having more influence on organizational decisions? The theoretical argument related to this part of the research question, which is also presented in Paper C and Paper D, builds on the notion that frontline professionals have some level of specialized, theoretical knowledge combined with intra-occupational norms (Andersen & Pedersen, 2012, p. 48). That the knowledge is specialized denotes that only a certain profession holds that knowledge, and that it is theoretical means that the knowledge is so complex that it often cannot be codified (Andersen & Pedersen 2012; Roberts & Dietrich 1999). These two aspects often translate into a relatively large degree of discretion (Andersen & Pedersen 2012; Jakobsen et al. 2018; Noordegraaf 2007). Professionals are expected to uphold their professional standard due to their intra-occupational norms, which define “good service” and regulate the professionals’ behavior in relation to service delivery (Andersen & Pedersen, 2012, p. 48; Andersen & Jakobsen 2016; Freidson 2001). That frontline employees in public organizations are professionals is one of the very reasons that we expect frontline managers to involve them in organizational decision-making in response to uncertainty. However, their status as frontline professionals might also affect the extent to which they see the involvement process as beneficial while it might also condition how they themselves benefit from being involved. The next sections will elucidate how that is.

Frontline professionals and the perceived benefits of being involved in organizational decision-making

The outset of the theoretical argument proposed in Paper C is that whether or not frontline professionals perceive involvement in organizational decision-making as beneficial is essential for it yielding positive results. Drawing on bounded rationality (Simon 1997) and theory of benefits and transaction costs (Coase 1937; Williamson 1975; 1985) of involving frontline professionals in organizational decision-making, the paper proposes a theoretical model that explains what drives frontline professionals’ perception of involvement. The

argument is that whether they see the involvement process as beneficial depends on whether their perceived marginal benefits of increased influence on organizational decisions outweigh the expected transaction costs.

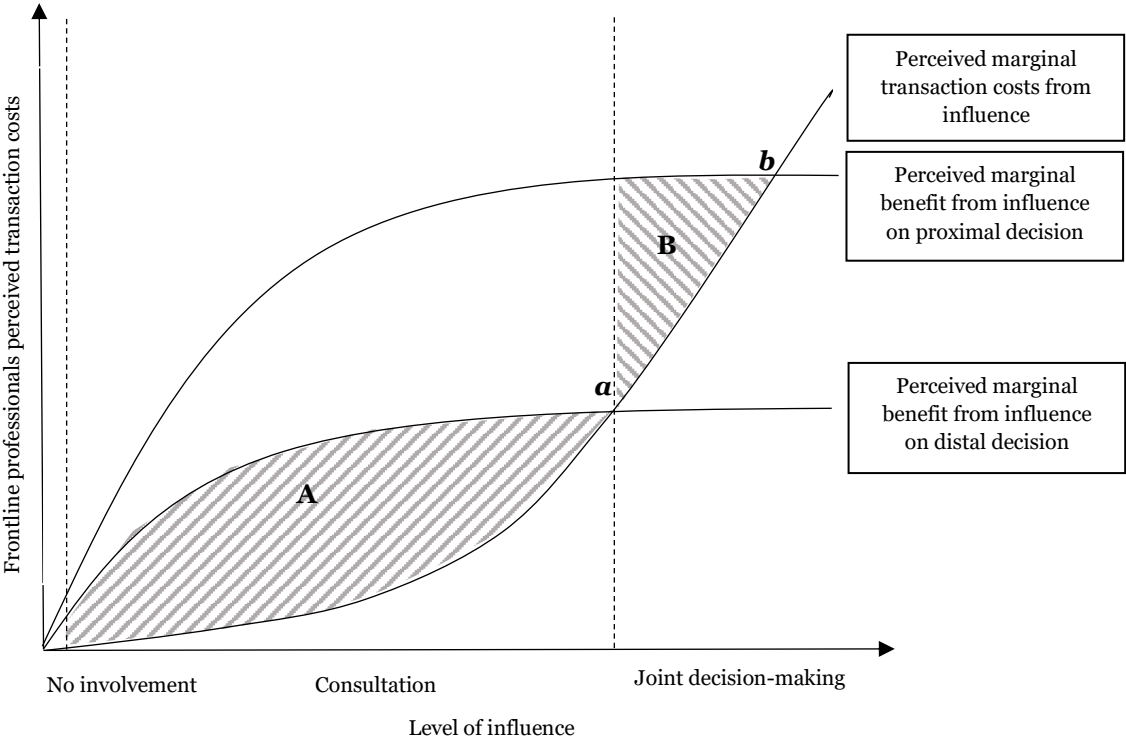
In the paper, it is argued that frontline professionals will perceive involvement in organizational decision-making as beneficial because having influence allows them to shape the organizational environment in accordance with their professional norms. However, the key theoretical contribution of the paper is that more influence on organizational decisions comes with transaction costs for the frontline professionals, i.e., “costs tied to deciding, planning, arranging and negotiating the actions to be taken [...] [and] any losses resulting from inefficient group decisions, plans, arrangements or agreements” (Milgrom and Roberts 1990, 60-61). The more influence frontline professionals have on organizational decision-making, the larger the transaction costs in relation to time, conflict, and blame. When the level of influence increases from consultation to joint decision-making (cf. Chapter 2 and Paper C), the frontline professionals have to invest more time in the decision-making process, the risk of conflict when more individuals have to agree increases, and the frontline professionals can potentially be blamed if the decision produces a negative result in the eyes of principals higher up in the organizational hierarchy (Paper C). The question in the paper is how frontline professionals balance the expected benefits and transaction costs of being involved in organizational decision-making.

The theoretical argument developed in Paper C is that whether the organizational decisions are proximal or distal to the frontline professionals' daily work tasks determines the perceived marginal benefits of more influence for them. Proximal decisions are operational organizational decisions related to their immediate working conditions, while distal decisions are strategic organizational decisions related to the distal organizational environment (e.g., Jønsson 2008; 597). The argument in Paper C is that, factoring in the bounded rationality of individuals, frontline professionals can use whether the decision is proximal or distal as a heuristic, in terms of the level of influence at which they perceive the marginal benefits of influence to outweigh the transaction costs. The theoretical argument is graphically summarized in Figure 2, which is a reprint from Paper C.

In the figure, perceived marginal benefit is depicted as the willingness to accept higher transaction costs. The figure shows a rapid increase in the perceived marginal transaction costs from more influence when the level of influence approaches joint decision-making. The figure furthermore shows that perceived marginal benefit is expected to rise rapidly at lower levels of influence for both proximal and distal decisions but wears off as the level of influence increases. Importantly, the perceived marginal benefit of being involved

in proximal decisions is expected to rise more rapidly at lower levels of influence than the perceived marginal benefit of being involved in distal decisions. Point **a** in the figure represents the theoretical optimal level of influence on distal organizational decisions for the frontline professionals when factoring in the transaction costs. Area **A** denotes the level of influence a boundedly rational individual will prefer, considering that it is not possible to calculate the real optimum. In this area, they have enough influence to affect the distal organizational decision through consultation without the transaction costs outweighing the perceived benefits. Point **b** represents the theoretical optimal level of influence on proximal organizational decisions for the frontline professionals when factoring in the transaction costs. Area **B** denotes the level of influence a boundedly rational individual will prefer. In this area, they have enough influence to affect the proximal organizational decision through joint decision-making without the transaction costs outweighing the perceived benefits.

Figure 2. Theoretical model in Paper C



Note: From left to right, the vertical dotted lines denote where the level of influence moves from no involvement into the domain of consultation and from consultation into the domain of joint decision-making. Reprint from Paper C.

Thus, the expectation presented in Paper C is that frontline professionals perceive some level of direct influence (consultation and/or joint decision-making) to be more beneficial than no influence, no matter the type of organiza-

tional decision. Furthermore, it is expected that frontline professionals perceive consultation as more beneficial than joint decision-making when the organizational decision is distal to their daily work tasks. Finally, it is expected that frontline professionals perceive joint decision-making as more beneficial than consultation when the organizational decision is proximal to their daily work tasks.

How employee profession moderates the impact of involvement of frontline professionals in decision-making on employee outcomes

Paper D, co-authored with Mickael Bech, focuses on the fact that frontline professionals belong to different professions (Andersen & Pedersen 2012). This creates different levels of discretion, which might affect how they benefit from the cognitive and motivational mechanism as introduced in Chapter 2. In the paper, the argument is tied to the central and recurring strategic organizational decision-making process of organizational goal prioritization in public organizations (e.g., Holm 2018b; Jung 2018; Nielsen 2014; Rainey 2014; Resh and Pitts 2012; Simon 1997; Wenger, O'Toole, and Meier 2008). It is important for frontline managers to prioritize organizational goals in a way that does not create goal conflict, because goal conflict limits the employees' ability to work towards organizational goals (see Jung 2018 for an overview).

In Paper D it is argued that involving frontline professionals in organizational goal prioritization will decrease perceived goal conflict through the cognitive mechanism. That is, involving frontline professionals in organizational goal prioritization will make it possible for managers to obtain information from frontline professionals, which makes it possible to prioritize organizational goals, reducing actual and thereby perceived goal conflict. At the same time, it makes it possible for frontline professionals to gain information about the goals, which improves their understanding of why the goals are important to pursue, reducing perceived goal conflict. Furthermore, it is argued that sharing influence over goal prioritization will increase frontline professionals' job satisfaction through the motivational mechanism. When frontline managers involve frontline professionals in organizational goal prioritization, they share influence with them on a central organizational decision-making process, which signals to the frontline professionals' that their input is valued and helps clarify their role in the organization, effectively raising job satisfaction (Paper D).

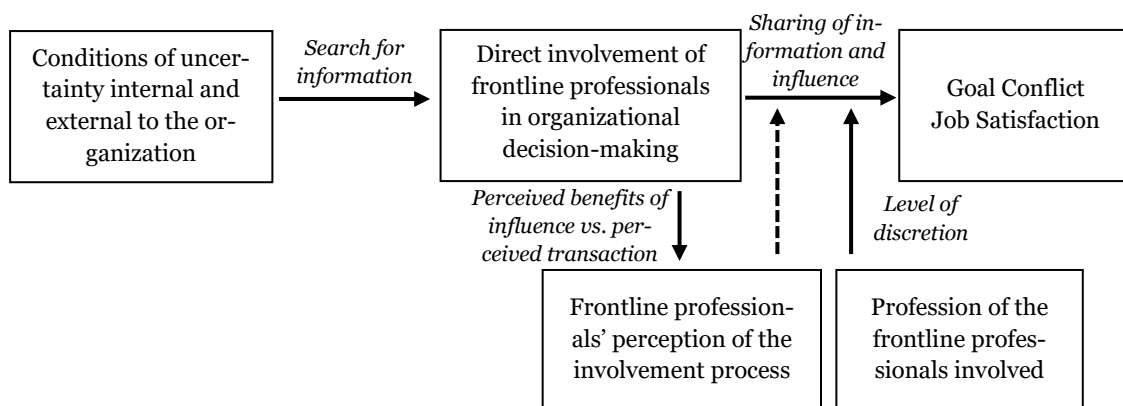
The key theoretical contribution in the paper is, however, the argument that type of profession matters for the relationship between involving front-

line professionals in organizational goal prioritization and the effect on perceived goal conflict and job satisfaction. This builds on the insight that professionals' specialized theoretical knowledge also means that they have discretion. Furthermore, frontline professionals in public organizations belong to different professions with varying degrees of specialized and theoretical knowledge, which affects the extent of their discretion (e.g., Andersen & Pedersen 2012). Professionals' ability to overrule, deviate from, or ignore organizational goals when delivering services increases with their level of discretion (e.g. Brehm & Gates, 1997; Lipsky, 1980; Maynard-Moody & Musheno, 2000; van Loon et al., 2018).

In terms of the cognitive mechanism, organizational goal conflict might be less of a concern for professions with higher levels of discretion compared to professions with lower levels of discretion. With less discretion and thus less opportunity to overrule, deviate from, or ignore organizational goals when delivering services, they may be more affected by goal conflict in their daily work. Thus, it is expected that these employees will benefit more from being involved in organizational goal prioritization because it will allow them to influence organizational goals (Paper D).

In terms of the motivational mechanism, the argument is that employees who are part of a profession with lower levels of discretion might feel that voicing concerns and ideas is less natural than for employees in a profession with more discretion. Thus, when the former are offered an opportunity to influence an important organizational decision like goal prioritization, they may benefit more from it in terms of job satisfaction than the latter. Figure 3 provides an overview of the main theoretical arguments and mechanisms of the dissertation (Paper D).

Figure 3. Project model with overview of main theoretical arguments and mechanisms



The next chapter introduces the research designs and data used to examine empirically the theoretical framework.

Chapter 4. Research setting, data, and designs

The research setting

Empirically testing the theoretical expectations in the dissertation requires a setting that fulfils the following requirements. First, it needs to be a setting where frontline managers are used to being exposed to uncertainty in relation to the external condition of crisis and to the internal condition of performance feedback. Second, it must be an organization that delivers complex services to citizens, meaning that the frontline employees are professionals. Third, the organization must employ frontline professionals from different professions with varying degrees of discretion due to varying degrees of specialized theoretical knowledge and occupational norms. One such setting is Danish public hospital departments.

Danish public hospitals are responsible for the delivery of public health-care services and are governed and owned by five regions, each led by a council of 41 elected politicians. Usually, each hospital department, which is the “frontline” of the Danish public healthcare sector where services are delivered, is managed by a head nurse (managing nurse) and a clinical director (managing physician), who pursue organizational goals related to the input-output-outcome chain. Managers at Danish public hospital departments are used to receiving performance feedback on organizational goals and to being exposed to the uncertainties introduced by performance feedback.

In relation to the uncertainty from crisis, the COVID-19 crisis affected all Danish public hospitals to varying degrees. It affected hospital departments to varying degrees because, among other things, some departments deliver services to patients whose treatment could be postponed or changed. In other words, the uncertainty the departments and their managers experienced because of the COVID-19 crisis varied.

Providing healthcare to citizens is complex. There are often multiple treatments and services and generally a high level of effect uncertainty in terms of how they affect specific patients, as the capacity and needs of patients even with similar diagnoses can differ substantially (Jakobsen et al. 2018; 130). The complexity of healthcare provision requires employees who are professionals with some level of specialized and theoretical knowledge (Andersen & Pedersen 2012). At hospital departments, specialized healthcare services are delivered by, for instance, nurses, therapists, and physicians and a large support staff, for instance medical secretaries, who belong to different professions with different degrees of specialized theoretical knowledge, occupational norms

and thus varying discretion in service delivery. All these elements make public Danish hospital departments a fitting setting for investigating the dissertation's research question and theoretical arguments. The generalizability of the potential findings from this setting is discussed in Chapter 6 along with potential limitations of the research design and data.

Overview of data and representativeness in the different studies

Table 2 provides an overview of the data and sample, design or identification strategy and the independent and dependent variables used in the four papers.

Table 2. Overview of the data and designs used in papers in the dissertation

| | <i>Sample and data</i> | <i>Design/identification strategy</i> | <i>Independent variable(s)</i> | <i>Dependent variable(s)</i> |
|---|--|---------------------------------------|---|--|
| A | 1,252 observations from 223 clinical directors | Conjoint experiment | Conditions of uncertainty in relation to performance feedback (type of feedback, type of aspiration and type organizational goal) | Manager inclination to involve frontline professionals in organizational decision-making |
| B | Two-wave panel dataset w. 338 observations from 169 junior physicians and chief physicians | Two-way fixed-effects regression | How affected the frontline professionals perceive that the organization is by the COVID-19 crisis | Involvement of frontline professionals in strategic decisions Involvement of frontline professionals in operational decisions |
| C | 603 junior physicians | Vignette Survey experiment | Type of employee influence (no influence, consultation, joint decision-making) on organizational decision Proximity of organizational decision to daily work tasks | Frontline professionals' perception of the benefits of the decision-making process |
| D | Three-wave panel dataset from the "New Governance Project"* w. 1,250/1,415 observations from 570/639 healthcare workers (e.g. medical secretaries, nurses, physicians) | Two-way fixed-effects regression | Employee perceived level of influence on organizational goal prioritization Profession of the employees (moderating variable) | Employee job satisfaction Employee perceived organizational goal conflict |

* The data from the New Governance Project was collected and generously shared by Mads Leth Jakobsen and Martin Bækgaard.

The data used in Paper A is 1,252 observations from 223 clinical directors collected as part of a survey distributed in May 2020 to the population of 410 clinical directors employed in the Danish public healthcare sector with a response rate of 55.75%. 63.5% were male and 36.5% were female, which is close to representative of the population, which in 2019 was 65% male and 35% female. However, it is not fully representative in terms of geography, as clinical directors from the Central Denmark Region are overrepresented, and clinical directors from the Southern Denmark Region are underrepresented (Paper A, see also Pedersen, Thomsen & Elbæk 2020 for a data rapport).

The data in Paper B consists of 338 observations from 169 chief and junior physicians, all without managerial responsibility, collected in the start of 2021 with help from the Danish Medical Association. 56% are chief physicians, and the rest junior physicians. The aim was to reach as many different hospital departments as possible, because the unit of analysis is clinical directors at Danish public hospital departments, which is explained more in detail in Paper B. The physicians in the sample are employed at 143 different Danish public hospital departments. Unfortunately, it is not possible to conduct a clear investigation of the representativeness of the sample, but the distribution of respondents across the five regions is relatively close to the distribution of clinical directors in 2019 (Paper B).

The data in paper C originates from 603 junior physicians employed in Denmark, i.e., hospital departments as well as other organizations. The data was collected in a survey sent to the population of junior physicians in Denmark (see Hansen, Lund, and Jacobsen 2022 for data report). 916 of the 3,684 who participated in the survey were invited to be part of the data collection used in paper C, and 65.83% of these chose to respond. The 603 junior physicians are representative of the 3,684 who participated in the full survey on gender, age, leader ambition, job satisfaction and type of organization, and the 3,684 who participated in the full survey are close to being representative of the population of Danish junior physicians on gender and age (Hansen, Lund, and Jacobsen 2022).

The data in paper D originates from the “New Governance Project” and was collected and made available by Mads Leth Jakobsen and Martin Bækgaard. The data was collected at 16 different public hospital departments in the Central Denmark Region in 2014, in early 2016 (2016a), and in late 2016 (2016b) as part of a research project, which followed a large hospital reform. Contingent on the dependent variable used, the data consists of 1,250/1,415 observations from 570/639 healthcare workers from different professions with different levels of discretion, for instance, medical secretaries, nurses, and physicians. 3,674 questionnaires were sent out in 2014, 3,986 in early 2016, and 3,949 in late 2016. For the main independent variable used in Paper

D, involvement in organizational goal prioritization, the response rates were 26%, 30%, and 34%. As reported by van Loon and Jakobsen (2022, p. 9), response rates differ somewhat across departments and professions.

Testing the theoretical arguments

There are three main theoretical arguments in this dissertation which are all causal, which mean that research designs which maximizes the likelihood of making causal claims are needed. The first argument is that increased levels of uncertainty from internal (performance feedback) and external (crisis) conditions increase the involvement of frontline professionals in organizational decision-making. The second argument is that the type of influence frontline professionals are offered in relation to proximal and distal organizational decisions affects the extent to which they perceive the involvement process to be beneficial. The third argument is that employees from a profession with lower levels of discretion will benefit more from increased involvement in organizational goal prioritization when it comes to increasing job satisfaction and decreasing perceived goal conflict, compared to employees from a profession with higher levels of discretion. Below, the research designs used in the dissertation are presented.

Using survey-based experiments

Paper A and Paper C aim to maximize internal validity by applying a design-based approach in the form of survey-based experiments to overcome potential problems with reverse causality and omitted variable bias. In terms of reverse causality, it may not be uncertainty from performance feedback that affects managers' involvement of frontline professionals but rather involvement of frontline professionals that affects the performance of the organization (cf. Chapter 2) and thus the performance feedback (Paper A). In terms of omitted variable bias, we could imagine that managerial characteristics affect both the type of influence managers offer frontline professionals and how they perceive the involvement process (Paper C).

Survey experiments makes it possible to control both the exogenous treatment and randomization of subjects into groups, which then, on average, are similar on both observable and unobservable characteristics and thereby eliminate both the risk of reverse causality and omitted variable bias (e.g., Blom-Hansen, Morton & Serritzlew 2015). However, there are some limitations to using survey-based experiments. One major limitation is the relatively low ecological validity in survey-based experiments, which means that survey experiments can seem artificial compared to real-life situations. To limit this

concern as much as possible, both experiments in the dissertation were pre-tested, and physicians were interviewed with the aim of making the experiments as realistic as possible. As an example, the interviews with clinical directors made it clear that the time frame used in the experiment in Paper A (see Table 3) would be three months instead of one month because this was deemed more realistic.

In Paper A, a conjoint experiment is used (Hainmueller et al. 2014, 2015). In addition to having the core strength of a normal survey experiment, conjoint experiments make it possible to test how multiple independent variables affect one or more dependent variables and can be repeated within-subject multiple times without damaging the reliability of the results or introducing survey satisficing (Andersen & Hjortskov 2019; Bansak et al. 2018, Bansak et al. 2021). This is useful in Paper A as it investigates whether type of feedback, type of aspiration and type of organizational goal affect frontline managers' involvement of frontline professionals in organizational decision-making. In the conjoint experiment, the clinical directors were presented with two situations where all treatments varied simultaneously and were asked to choose between the profiles in relation to the dependent variable. The design makes it possible to estimate whether differences from the baseline category of each value of the three independent variables, type of feedback, type of aspiration and type of organizational goal, have an independent causal effect on the probability that the clinical directors will involve their employees in decision-making. Table 3 below, which is a reprint from Paper A, shows an example of what the clinical directors have seen as well as the items capturing the dependent variable. The boxes denoted Situation A1 and Situation 1B vary. More details regarding the attributes used, the estimation strategy and the dependent variable can be seen in Paper A.

Table 3. Survey example from Paper A

Below you will be presented with situations with fictive descriptions of information you can access in your management information system. You will be presented with two different, independent situations three times. We ask you to respond to the situations as if you had faced them before the COVID-19 pandemic.

For each of the three times, we ask you to consider in which of the two fictive independent situations you would be most inclined to involve your employees in understanding the information, in revising the department’s goals and in revising the work processes in the department.

| | |
|--|---|
| <p>Situation A1</p> <p>For the past three months, adherence to the budget in your department has been significantly lower compared to the same period last year.</p> | <p>Situation B1</p> <p>For the past three months, the activity in your department has been significantly higher compared to departments that you compare yourself to.</p> |
|--|---|

In which of the two situations above would you be most inclined to involve your employees in:

| | | |
|--|----|----|
| Understanding why this is the case. | A1 | B1 |
| Revising the department’s goals. | A1 | B1 |
| Revising the work processes in the department. | A1 | B1 |

Note: Reprint from Paper A.

Table 4, also reprinted from Paper A, shows the attributes that are randomly used to create the profiles presented to the respondents in the conjoint experiment. Each clinical director was presented with three situations and had to choose between two profiles (A and B) three times, resulting in each clinical director potentially being treated as six observations. Because not all 223 clinical directors who took part in the experiment completed it, the total number of observations is 1252.

Table 4. Independent variable attributes in the Conjoint Experiment in Paper A

| <i>Attributes</i> | <i>Options</i> |
|---------------------|---|
| Organizational goal | <p>“For the past three months, adherence to the budget in your department has been...”</p> <p>“For the past three months, the activity in your department has been...”</p> <p>“For the past three months, the average wait times at your department have been...”</p> <p>“For the past three months, the adherence to clinical guidelines at your department has been...”</p> <p>“For the past three months, the number of patient complaints in your department has been...”</p> |
| Feedback | <p>“... significantly higher ...”</p> <p>“... significantly lower ...”</p> <p>“... neither higher nor lower ...”</p> |
| Aspiration | <p>“... compared to the same period last year.”</p> <p>“... compared to departments that you compare yourself to.”</p> |

Note: Reprint from Paper A

In Paper C, a 3 x 2 vignette survey experiment is used. The experiment varies along the two theoretical dimensions in the study, i.e., proximity of the organizational decision to daily work tasks (proximal and distal) and level of influence (no influence, consultation, and joint decision-making). The treatment conditions can be seen in Table 5 below, which is a reprint from Paper C. The dependent variable, how beneficial the physicians perceived the involvement process to be, is measured with an index consisting of four items capturing costs and benefits of employee involvement (cf. Chapter 3). Details about the dependent variable, balance test and attention checks can be found in Paper C.

Table 5: The six treatment conditions in Paper C

| | <i>No involvement</i> | <i>Consultation</i> | <i>Joint decision-making</i> |
|------------------------------|---|--|---|
| <i>Change vision</i> | <p>Imagine the following scenario:</p> <p>To support the continued development of your unit, the management of your unit wants to change the overall vision of the unit.</p> <p>The management makes it clear that <i>they themselves—without involving the employees in the unit—decide what the overall vision of the unit should be</i>.</p> | <p>Imagine the following scenario:</p> <p>To support the continued development of your unit, the management of your unit wants to change the overall vision of the unit.</p> <p>The management makes it clear that <i>the employees in the unit will be involved so that they can provide input before the management decides what the overall vision of the unit should be</i>.</p> | <p>Imagine the following scenario:</p> <p>To support the continued development of your unit, the management of your unit wants to change the overall vision of the unit.</p> <p>The management makes it clear that <i>the employees in the unit will be involved by deciding on an equal footing with the management what the overall vision of the unit should be</i>.</p> |
| <i>Change work processes</i> | <p>Imagine the following scenario:</p> <p>To support the continued development of your unit, the management of your unit wants to change the daily work processes in the unit.</p> <p>The management makes it clear that <i>they themselves—without involving the employees in the unit—decide how the daily work processes in the unit are to be organized</i>.</p> | <p>Imagine the following scenario:</p> <p>To support the continued development of your unit, the management of your unit wants to change the daily work processes in the unit.</p> <p>The management makes it clear that <i>the employees in the unit will be involved so that they can provide input before the management decides how the daily work processes in the unit are to be organized</i>.</p> | <p>Imagine the following scenario:</p> <p>To support the continued development of your unit, the management of your unit wants to change the daily work processes in the unit.</p> <p>The management makes it clear that <i>the employees in the unit will be involved by deciding on an equal footing with the management how the daily work processes in the unit are to be organized</i>.</p> |

Note: *Italic* denotes variation in the level of influence, and **bold** denotes variation in the type of decision. The text was not bolded or italic when presented to the respondents. The following text was included to make it clear to the respondent what was meant with “unit”: “Glossary: With unit we mean your daily workplace. If you are employed at a hospital, it would be your department.” Reprint from Paper C.

Using fixed effects

In addition to the design-based approach to overcoming problems with reverse causality and omitted variable bias, statistical methods, more specifically two-way fixed effects, were used in Paper B and Paper D. Paper B investigates how crisis affects involvement of physicians in strategic and operational organizational decisions based on the fact that the COVID-19 crisis hit all Danish public hospital departments simultaneously but to varying degrees. As mentioned, with help from the Danish Medical Association a survey was sent to chief and junior physicians with the aim of reaching as many different Danish public hospital departments as possible. In the survey, the physicians were asked how much their clinical director had involved them in different strategic and operational organizational decisions in different periods in the beginning of 2020. Table 6, which is a reprint from Paper B, shows the vignettes used to make the physicians recall the different periods in 2020, before and during the COVID-19 pandemic, and the questions they were asked which are used to measure the dependent variables in the paper. Paper C includes more details on the design and the measurement of the dependent variables.

To capture the independent variable, how much the COVID-19 crisis affected the different organizations, the physicians were asked how involved their department had been in handling the COVID-19 crisis on a scale from 0 (not involved) to 100 (the most involved department). The answer to this question corresponds to the period in Vignette 2 above. In relation to the period in Vignette 1, all departments can be assumed not to be affected by the COVID-19 crisis at this time, and therefore the independent variable in this period is coded 0.

This results in a panel data structure with observations on the dependent and independent variable in the period before and the period during COVID-19. This data structure makes it possible to use unit and time fixed effects regression. Unit fixed effects control for all unobserved and observed individual and departmental time-invariant confounding factors, and the time fixed effects control for shocks that affect all departments the same way over time (Stock & Watson, 2015). This is important, because it makes it possible to handle omitted variable bias, which might be introduced because the hospital departments differ in terms of the work they do, which might affect both how much they were affected by the COVID-19 crisis and how much the employees were involved in decision-making. The two-way fixed effects approach also alleviates some concerns regarding recall bias and common source bias because the unit fixed effects control for any individual-level time-invariant factors within the respondent associated with recall bias and common source bias,

which is further discussed in Paper B. In sum, the design makes it possible to investigate the extent to which the impact of the COVID-19 crisis on the hospital departments affected frontline managers' involvement of frontline professionals in strategic and operational organizational decisions.

Table 6. Vignettes used in Paper B

| | |
|---|--|
| Vignette 1 – period before COVID-19 | <p>When you answer the following questions, we will ask you to think back to the first 2.5 months of 2020, which was the period before the healthcare system was first told to limit activity due to the COVID-19 situation. To be clear, that was before the more radical changes began; that is, week 2 to week 12 (January 6 to March 16).</p> <p>To what extent was the group of junior physicians / chief physicians in the department where you were employed in the period January 6 to March 16, 2020, directly involved in the following tasks by the clinical director, during the same period?</p> <ol style="list-style-type: none"> 1. The prioritization of the primary purposes of the department's work 2. The setting of specific goals for the department 3. The planning of which tasks you as a department can handle 4. The organization of the work processes in the department 5. The identification of problems related to how you solve your tasks in the department 6. The identification of solutions to problems related to how you solve your tasks in the department 7. The implementation of solutions to problems related to how you solve your tasks in the department |
| Vignette 2 – period during COVID-19 | <p>When answering the following questions, we will ask you to think back to the transition period immediately after the healthcare system was first told to limit activity due to COVID-19, with the aim of being able to release staff and equipment due to the expectation of very great pressure on the healthcare system; that is, weeks 12 to 16 (March 16 to April 13, 2020).</p> <p>To what extent was the group of junior physicians / chief physicians in the department where you were employed in the period March 16 to April 13, 2020, directly involved in the following tasks by the clinical director, during the same period?</p> <ol style="list-style-type: none"> 1. The prioritization of the primary purposes of the department's work 2. The setting of specific goals for the department 3. The planning of which tasks you as a department can handle 4. The organization of the work processes in the department 5. The identification of problems related to how you solve your tasks in the department 6. The identification of solutions to problems related to how you solve your tasks in the department 7. The implementation of solutions to problems related to how you solve your tasks in the department |

Note: The **bold** text indicates how the vignette differed between the surveys to junior physicians and chief physicians. All questions were measured on a 1 – 5 Likert scale with the possible answers “not at all,” “to a lesser degree,” “to some degree,” “to a high degree,” “to a very high degree.” Reprint from Paper B.

Paper D exploits the panel structure of the data from the “New Governance Project” to investigate whether the professions of the frontline professionals involved in organizational goal prioritization moderate the effect on job satisfaction and perceived goal conflict. Table 7 gives an overview of the main variables used in the analyses. Table 7 is an adapted reprint from Paper D.

Table 7. Descriptive Statistics of the Variables used in Paper D

| | Year | Distribution* | N | Range |
|--|-------|---------------|------|-------|
| Involvement in goal prioritization – 1 item | 2014 | 2.32 (0.97) | 973 | 1–5 |
| | 2016a | 2.51 (1.02) | 1213 | 1–5 |
| | 2016b | 2.54 (1.01) | 1083 | 1–5 |
| Goal conflict – index with 3 items | 2014 | 4.93 (2.54) | 896 | 0–10 |
| | 2016a | 3.98 (2.53) | 1057 | 0–10 |
| | 2016b | 4.04 (2.48) | 964 | 0–10 |
| Job satisfaction – 1 item | 2014 | 7.35 (2.06) | 1018 | 0–10 |
| | 2016a | 7.70 (1.84) | 1204 | 0–10 |
| | 2016b | 7.62 (1.81) | 1124 | 0–10 |
| Type of profession | | | | |
| Medical secretaries – low levels of discretion | 2014 | 16.2% | 141 | - |
| | 2016a | 18.4% | 217 | - |
| | 2016b | 17.5% | 175 | - |
| Nurses, therapists, and biomedical laboratory scientists (BLS) – medium levels of discretion | 2014 | 69.1% | 605 | - |
| | 2016a | 67.9% | 799 | - |
| | 2016b | 65.5% | 658 | - |
| Physicians – high levels of discretion | 2014 | 14.7% | 129 | - |
| | 2016a | 13.7% | 162 | - |
| | 2016b | 17.03% | 171 | - |

*Note: Distribution in mean (SD in brackets) or percentage. Adapted reprint from Paper D.

In the paper, time (2014, 2016a, 2016b) and unit (employee/respondent) fixed effects regression is used in all statistical models to control for all observed and unobserved employee and organizational time-invariant confounding factors, and shocks to all individuals over time. Here, the unit fixed effect also helps to overcome some potential common source bias problems. However, common source bias is less of a concern when it comes to interaction effects as the ones tested in this study, because common source bias “tends to attenuate the interaction effects” (Jakobsen & Jensen, 2015, p. 16). The profession variable is constructed following Andersen and Pedersen’s (2012) categorization of professions according to degree of specialized and theoretical knowledge and strength of professional norms. Medical secretaries, who have a 1.5-year education and some theoretical knowledge, are treated as being part of a profession with a low degree of discretion. Nurses, biomedical laboratory

scientists (BLS) and therapists, who all have a 3.5-year education and theoretical knowledge, are treated as being part of a profession with a medium degree of discretion. Physicians, who have eight years of post-secondary education with high levels of specialized and theoretical knowledge, are treated as being part of a profession with a high degree of discretion. Paper D includes more detailed information about the design. In sum, the design in Paper D makes it possible to test whether the profession of the frontline professionals involved moderates the effect of employee involvement in organizational goal prioritization on job satisfaction and perceived goal conflict.

The statistical methods used in Paper B and Paper D are not as strong in terms of maximizing internal validity as the survey-based experiments in Paper A and Paper C. This is due to two things. The first is that the methods used cannot control for time variant changes that do not affect all units at the same time, for instance the appointment of a new manager in one or more of the organizations, which could introduce omitted variable bias. Two, the design in Paper D does not rely on a clear exogenous treatment, which makes it hard to rule out reverse causality. However, the problem with reverse causality is less of a concern in Paper B, because the design builds on the central observation that the hospital departments were not affected by the COVID-19 crisis until March 13, 2020, which means that it can be seen as an exogenous treatment. However, the fact that the measure of how affected the departments were by the COVID-19 crisis is subjective might potentially introduce some bias.

The study in Paper D relies fully on natural variation in the independent variable across units over time, except for the moderating variable of profession, which is constant over time. The reliance on natural variance means that reverse causality cannot be ruled out. Either way, the design is still strong when it comes to investigating the association between the variables, because it rules out all individual- and organizational-level time-invariant omitted variable bias.

The methods used in Paper B and Paper D are not as strong as the experiments used in Paper A and Paper C when it comes to maximizing internal validity. However, the upside is that they focus on real-life situations and what employees experience in their organization, which means that the ecological validity is better than it might be in the survey-based experiments.

The next chapter presents the main results of the dissertation

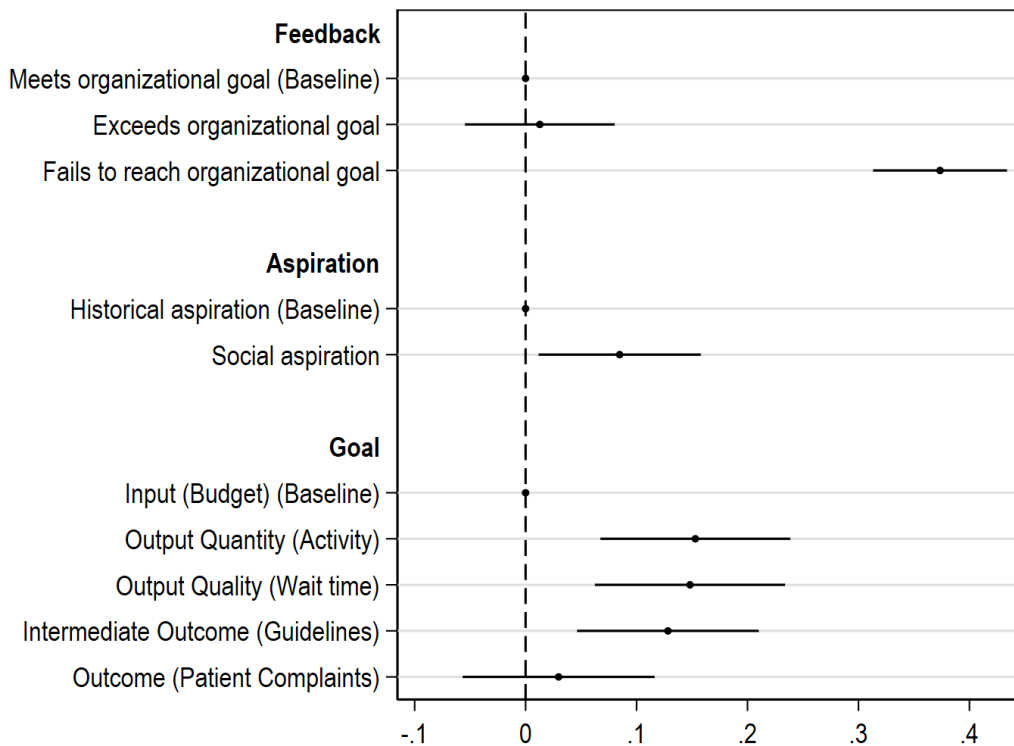
Chapter 5. Main findings

The effect of performance feedback on involvement of frontline professionals in organizational decision-making

The first expectation of this dissertation is that frontline managers in public organizations will involve frontline professionals in organizational decision-making when they face conditions internal and external to the organization that produce uncertainty in the shape of incomplete information about the range of possible decisions and the potential consequences of these decisions. In terms of the internal situation, the dissertation expects that conditions related to performance feedback create this uncertainty. More specifically, it expects that frontline managers will be more inclined to involve frontline employees in organizational decision-making when they receive feedback that they fail to reach an organizational goal compared to when they reach or exceed them. It expects that frontline managers will be more inclined to involve their employees in organizational decision-making when the organizational goal on which they receive feedback is tied to social aspirations compared to historical aspirations. Finally, it expects that frontline managers will be more inclined to involve their employees in organizational decision-making in response to feedback about goal attainment the further along the input-output-outcome chain the organizational goal is situated (Paper A). These expectations are examined in Paper A with a conjoint experiment as presented in Chapter 4. Figure 4 below, which is a reprint from Paper A, shows the results for involvement in one of three decision-making processes, namely revising work processes.

First, the figure illustrates that chief physicians are more inclined to involve frontline professionals in revising organizational work processes when they receive feedback that they fail to reach organizational goals, compared to when they reach and exceed their goals, which is in line with the first theoretical expectation. Second, there is also support for the second expectation that they will be more inclined to involve their employees in revising organizational work processes when they receive feedback in relation to a social aspiration compared to a historical aspiration. The above pattern is also apparent when we look at two other outcome measures, namely involvement in understanding the feedback and in reprioritizing organizational goals (see Paper A).

Figure 4. Inclination to involve frontline professionals in revising work processes



Note: OLS regression with cluster robust standard errors based on 1,252 observations from 223 respondents. Spikes are 95% confidence intervals. Reprint from Paper A.

However, support is less clear for the third expectation that frontline managers are more inclined to involve frontline professionals in organizational decision-making in response to feedback about goal attainment the further along the input-output-outcome chain the organizational goal is situated. As can be seen in the figure above, they may be more inclined to involve when the goal is an output goal or an intermediate outcome goal rather than an input goal, but not more inclined when it is an end outcome goal. This is also apparent when we look at inclination to involve in understanding the feedback and in reprioritizing organizational goals, where there is no effect at all when it comes to reprioritizing organizational goals (see Paper A).

In sum, the dissertation finds that failing to reach an organizational goal, compared to reaching or exceeding it, makes frontline managers inclined to involve frontline professionals in organizational decision-making. Furthermore, it finds that frontline managers are more inclined to involve frontline professionals in organizational decision-making when they receive feedback in relation to a social aspiration compared to a historical aspiration, regardless of the feedback (reach, exceed, or fail to reach). Finally, it does not find sup-

port for the expectation that frontline managers will be more inclined to involve frontline professionals in organizational decision-making in response to feedback about goal attainment (reach, exceed or fail to reach) the further along the input-output-outcome chain the organizational goal is situated (Paper A).

The effect of crisis on involvement of frontline professionals in organizational decision-making

In terms of the external condition that creates uncertainty for public managers, the dissertation expects uncertainty from crisis to make frontline managers involve frontline professionals in operational and strategic organizational decision-making (Paper B). These expectations are tested in Paper B, and the main results can be seen in Table 8, which is a reprint from Paper B.

Table 8. Respondent-level linear fixed effects regression estimates for the involvement of frontline professionals in operational organizational decisions and in strategic organizational decisions

| | Model 1: Involvement in operational decisions | Model 2: Involvement in strategic decisions |
|--------------------------|---|---|
| Affected by crisis | 0.09** (0.030) | 0.06 (0.043) |
| Period/vignette dummy | -0.06* (0.025) | -0.02 (0.029) |
| Constant | 0.478*** (0.008) | 0.357*** (0.006) |
| Observations | 338 | 338 |
| Respondents | 169 | 169 |
| R ² – within | 0.024 | 0.017 |
| R ² – between | 0.028 | 0.021 |
| R ² – overall | 0.022 | 0.014 |

Note: Hospital clustered standard errors in parentheses (26). Respondent fixed effects regression with period/vignette dummy. + p < 0.1, *p < 0.05, **p < 0.01, ***p < 0.001. Reprint from Paper B.

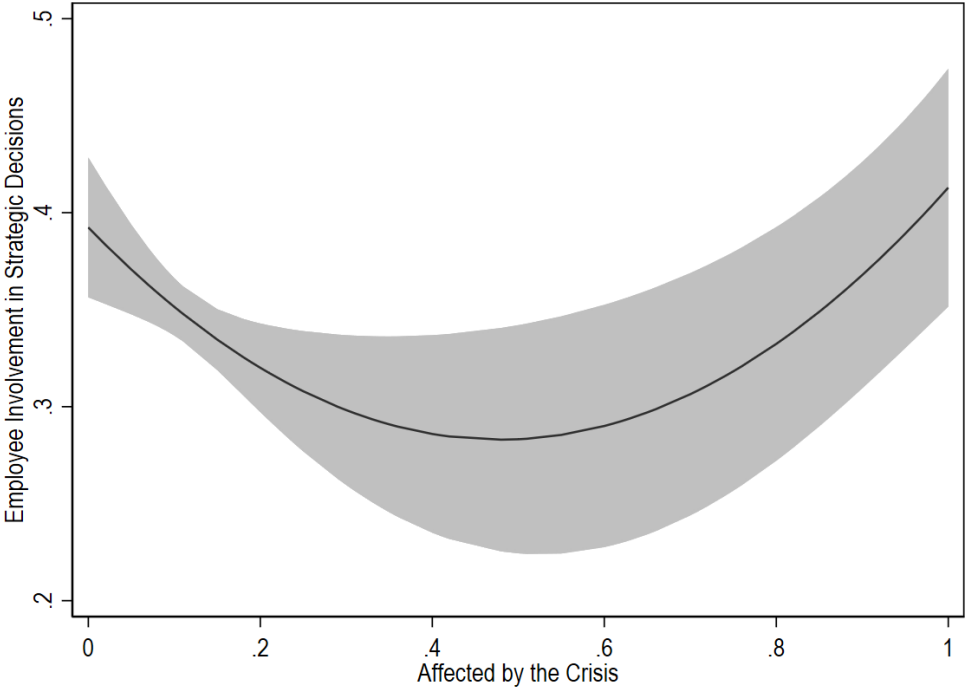
Model 1 shows the results of the test of the expectation that the more affected the organization is by crisis, the more frontline managers will involve frontline professionals in operational organizational decisions. The independent and the dependent variables in the table are scaled 0-1 to ease interpretation. As shown in Model 1, there is support for the expectation. When moving from 0

to 1 in terms of how affected the organization is by crisis, there is a nine percentage point increase in how much clinical directors involve physicians in operational organizational decision-making.

Model 2 shows the results of the test of the expectation that the more affected the organization is by crisis, the more frontline managers will involve frontline professionals in strategic organizational decisions. As the model shows, the expectation is not supported because there is no linear statistically significant relationship between how affected the organization is by crisis and the involvement of frontline professionals in strategic organizational decision-making.

However, as a supplementary and exploratory analysis in Paper B, the relationships are also estimated with a squared term to test whether the relationships have another functional form. These exploratory tests reveal an apparent convex relationship between the impact of crisis on the organization and employee involvement in strategic organizational decision-making. This relationship is depicted in Figure 5, which is a reprint from Paper B.

Figure 5. Relationship between how affected the organization is by crisis and the involvement of frontline professionals in strategic organizational decisions



Note: Reprint from Paper B.

The relationship indicates that in response to crisis, frontline managers may do the opposite of involving frontline professionals in strategic organizational decisions, as it seems that they centralize strategic organizational decision-

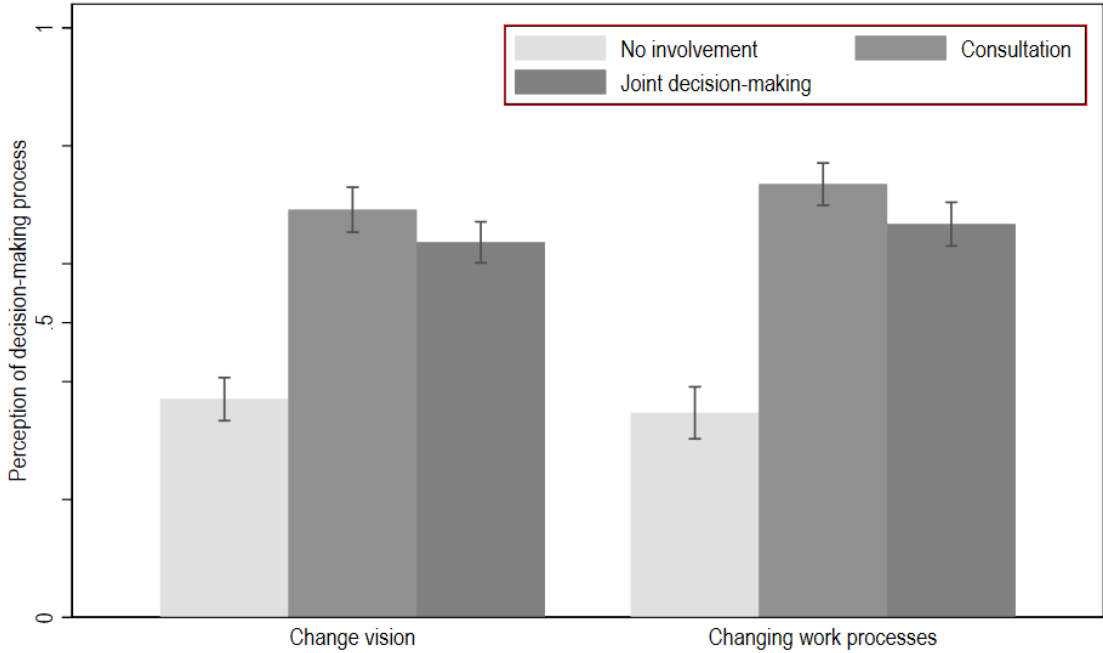
making authority up to a certain point. However, it seems that at a certain point of impact, they no longer centralize, which indicates that the uncertainty in relation to strategic decisions may also reach a point where centralizing decision-making is no longer an option. It should be noted that they do not seem to involve more in strategic decisions when they are heavily affected by crisis. Considering the explorative nature of these findings, future studies should try to replicate them, as discussed in Paper B.

In sum, the dissertation finds support for the theoretical expectation that frontline managers will involve frontline professionals more in operational organizational decision-making in response to the uncertainty introduced to the organization by crisis. However, it does not find evidence that frontline managers will involve frontline professionals more in strategic organizational decision-making. Instead, an exploratory analysis indicates that frontline managers might centralize strategic organizational decisions in response to crisis, up to a certain point of impact (Paper B).

The effect of influence on frontline professionals' perception of the involvement process

The second expectation in the dissertation is that the type of influence frontline professionals are offered in relation to proximal and distal organizational decisions affects the extent to which they perceive the involvement process to be beneficial. More specifically, the dissertation expects frontline professionals to perceive some level of direct influence (consultation and joint decision-making) to be more beneficial than no influence, no matter the type of organizational decision. Furthermore, it expects that frontline professionals perceive consultation to be more beneficial than joint decision-making when the organizational decision is distal to their daily work tasks. Finally, the dissertation expects that frontline professionals perceive joint decision-making to be more beneficial than consultation when the organizational decision is proximal to their daily work tasks (Paper C). These expectations are tested in Paper C with a vignette survey experiment as explained in Chapter 4. The main findings from this experiment are illustrated in Figure 6, which is a reprint from Paper C.

Figure 6: Effect of type of influence on perception of the involvement process for proximal decisions and distal decisions



Note: Spikes are 95% confidence intervals. Reprint from Paper C.

First, and in line with the theoretical expectations, the figure shows that front-line professionals perceive both consultation and joint decision-making to be more beneficial than having no influence on organizational decisions regardless of whether the organizational decision is a distal strategic decision (change vision) or a proximal operational decision (changing work processes). Second, and in line with the theoretical expectations, frontline professionals perceive consultation to be more beneficial than joint decision-making when it comes to distal strategic organizational decisions (change vision). Third and finally, and in contrast to expectations, frontline professionals perceive consultation to be more beneficial than joint decision-making when it comes to proximal strategic organizational decisions (changing work processes) (Paper C). As discussed more in depth in Paper C, this might indicate that frontline professionals treat proximal and distal organizational decisions the same when balancing costs and benefits of more influence.

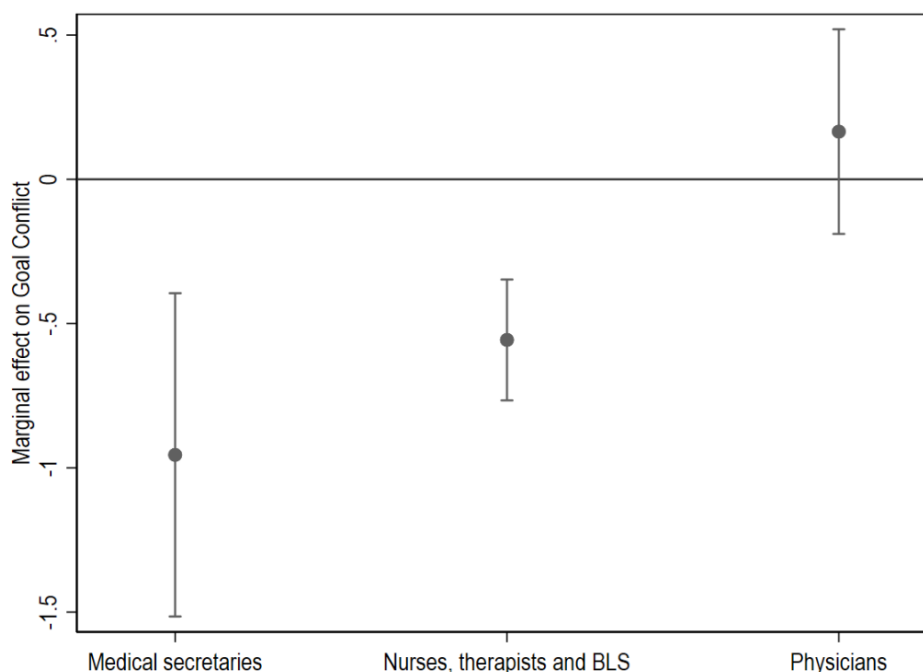
In sum, the dissertation finds that no matter the type of organizational decision, frontline professionals perceive consultation to be the most beneficial decision-making process, compared to no influence and joint decision-making. Thus, the empirical evidence suggests that researchers and managers should consider the transaction costs for frontline professionals tied to having more influence in organizational decision-making. After all, it seems that they do not perceive more influence as more beneficial, and if involving frontline professionals in organizational decision-making aims to yield positive results,

there are arguments that they must see the benefits of the involvement process (Paper C).

The moderating role of discretion from different professions in relation to employee outcomes of involving frontline professionals in organizational goal prioritization

The third theoretical argument of the dissertation is that frontline professionals who are part of a profession with lower levels of discretion will benefit more from increased levels of influence on organizational goal prioritization when it comes to increasing job satisfaction and decreasing perceived goal conflict, than frontline professionals who are part of a profession with higher levels of discretion (Paper D). These expectations are tested in Paper D. Figure 7 below, which is a reprint from Paper D, shows the marginal effects of involvement of frontline professionals in the strategic decision-making process of organizational goal prioritization on perceived goal conflict, contingent on the profession of the frontline professionals.

Figure 7. Marginal effects of involvement in goal prioritization on goal conflict contingent on profession type



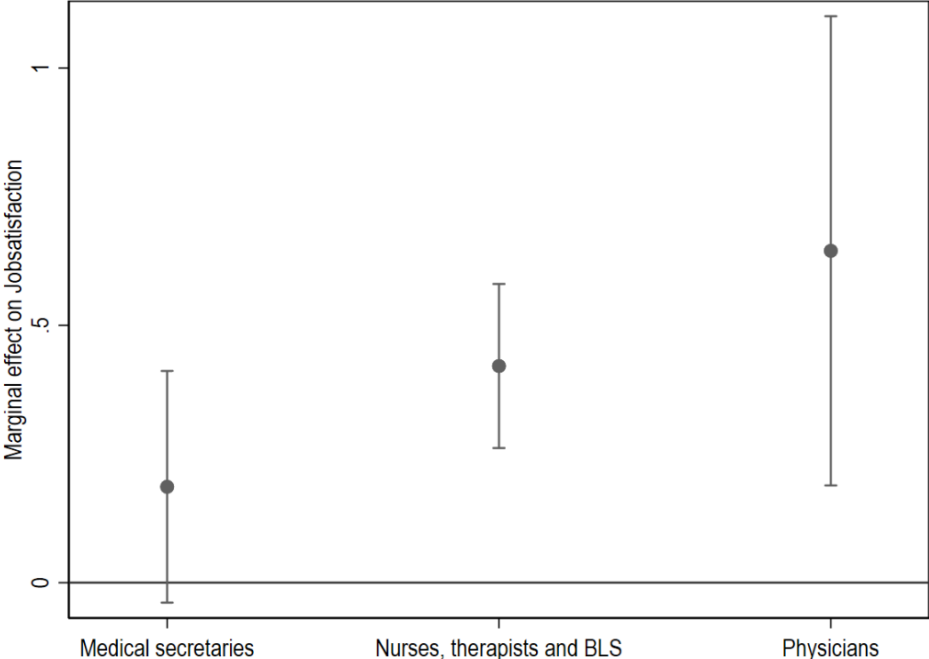
Note: Reprint from Paper D.

The figure shows a statistically significant negative marginal effect from involvement in organizational goal prioritization on perceived organizational goal conflict for frontline professionals in a profession with low levels of discretion (medical secretaries) and for frontline professionals in a profession

with medium levels of discretion (nurses, therapists, and biomedical laboratory scientists). However, there is no statistically significant marginal effect for frontline professionals in a profession with high levels of discretion (physicians). Furthermore, the difference in the marginal effect between professions with low and high levels of discretion is statistically significant. This is also the case when it comes to the difference between professions with medium and high levels of discretion. However, there is no statistically significant difference between professions with low and medium levels of discretion. All in all, there is support to the expectation that frontline professionals in a profession with less discretion will benefit more from being involved in organizational goal prioritization when it comes to reducing perceived organizational goal conflict, compared to frontline professionals in a profession with higher levels of discretion.

Figure 8 below, also reprinted from Paper D, shows the marginal effects of involving frontline professionals in organizational goal prioritization on job satisfaction, contingent on the profession of the frontline professionals.

Figure 8. Marginal effects of involvement in goal prioritization on job satisfaction contingent on profession



Note: Reprint from Paper D.

Overall, the figure shows that there is no support for the expectation that frontline professionals in a profession with lower levels of discretion benefit more from being involved in organizational goal prioritization when it comes

to job satisfaction than frontline professionals in a profession with higher levels of discretion. Instead, there are some indications that the opposite might be true. It seems that there is no statistically significant positive marginal effect for frontline professionals in a profession with low levels of discretion, while it seems that there is a statistically significant positive marginal effect for frontline professionals in professions with medium and high levels of discretion. However, the difference between the group of frontline professionals with low levels of discretion and the two other groups is only statistically significant at the 0.1 level. These results might indicate that the relationship between involving frontline professionals in organizational decision-making and job satisfaction is more consistent across professions compared to for instance perceived goal conflict.

In sum, the dissertation finds that frontline professionals in professions with low or medium levels of discretion benefit more from being involved in organizational goal prioritization when it comes to lowering perceived organizational goal conflict than frontline professionals in professions with higher levels of discretion. Furthermore, the dissertation finds some indication, albeit only at a 0.1 significance level, that the opposite is true when it comes to job satisfaction, so that frontline professionals in professions with medium and high levels of discretion benefit more from being involved in organizational goal prioritization than frontline professionals in professions with low levels of discretion (Paper D).

The next chapter summarizes the contributions of the dissertation and discusses limitations, suggestions for future research and practical implications.

Chapter 6. Concluding discussion

Answering the research question and summarizing the contributions

The outset of this dissertation was the observation that the emergence of new governance models such as New Public Governance (Torfing et al. 2020) and Internal Learning Regimes (Jakobsen et al. 2018) has renewed the focus on employee involvement in organizational decision-making in the public sector, in the shape of involvement of frontline professionals. Involvement of key stakeholders such as frontline professionals in organizational decision-making is argued to be a key component in these governance models. In theory, utilizing the frontline professionals' knowledge and information via involvement in organizational decision-making is expected to improve a number of employee outcomes and ultimately organizational decisions and performance (e.g., Andrews et al. 2007, Ansell, Sørensen & Torfing 2017; 2021; Jakobsen et al. 2018). However, there are at least two aspects that until now have been overlooked regarding how involvement of frontline professionals in organizational decision-making unfolds in the public sector. First, it is assumed that frontline managers will involve frontline professionals in organizational decision-making in response to conditions of uncertainty. However, we do not know whether that is the case. Second, frontline professionals in public organizations have professional norms and a certain level of discretion, which may affect how they perceive the involvement process and the extent to which they benefit from it. To increase our knowledge regarding these two circumstances, this dissertation has sought to answer the research question: *To what extent do conditions of uncertainty affect public frontline managers' direct involvement of frontline professionals in organizational decision-making, and how does the fact that many public employees are professionals affect how they perceive and benefit from having more influence on organizational decisions?*

Based on the theoretical framework of bounded rationality combined with insights from other strains of literature on, for instance, performance feedback, crisis management and professions, and by applying methods that aim to maximize the possibility of making causal claims, the dissertation provides several contributions in its endeavor to answer the research question. In relation to the first part of the question, "*to what extent do conditions of uncertainty affect public frontline managers' involvement of frontline professionals in organizational decision-making*", the dissertation demonstrates that

frontline managers involve frontline professionals in organizational decision-making when they face internal and external conditions of uncertainty (Paper A & Paper B). In terms of internal conditions of uncertainty, the dissertation contributes theoretically by combining insights from the literature on employee involvement in organizational decision-making and the performance feedback literature, and empirically by showing that public frontline managers are inclined to involve frontline professionals in organizational decision-making in response to conditions of uncertainty from performance feedback. More specifically, frontline managers are more inclined to involve frontline professionals in organizational decision-making when they receive feedback indicating that they fail to reach organizational goals, compared to when they receive feedback that they reach or exceed their goals. Furthermore, frontline managers are more inclined to involve frontline professionals in decision-making when the organizational goal on which they receive feedback is tied to social aspirations compared to historical aspirations regardless of the type of feedback (Paper A).

In terms of the external situation of uncertainty, the dissertation focuses on crises, which creates uncertainty as well as urgency for organizational decision-making. By combining literature on crisis management and employee involvement in decision-making, it argues that frontline managers will involve frontline professionals in operational and strategic organizational decisions in response to crises to reduce uncertainty. The argument thus challenges the centralization thesis which expects decision-makers to centralize decision-making authority in response to crises, to be able to increase the speed of the decision-making process by reducing complexity and transaction costs. The dissertation contributes by showing that the more affected the organization is by crisis, the more the managers involve frontline professionals in operational organizational decision-making. However, they do not seem to involve frontline professionals more in strategic organizational decision-making in response to crisis. Furthermore, exploratory results indicate that when it comes to strategic decisions, frontline managers who are only somewhat affected by crisis will instead choose to centralize decision-making authority, but when the impact of a crisis is greater, they will not. Thus, the results suggest a positive linear relationship between the impact of crisis and how much frontline managers involve frontline professionals in operational organizational decision-making, and a convex relationship between the impact of crisis and how much frontline managers involve frontline professionals in strategic decisions (Paper B).

In relation to the second part of the research question, “how does the fact that many public employees are professionals affect how they perceive the in-

involvement process and the extent to which they benefit from it”, the dissertation makes at least two theoretical contributions. First, it offers a theoretical model by combining insights from bounded rationality and how individuals use heuristics in decision-making with theories of benefits and transaction costs in relation to employee involvement in decision-making. This model explains how frontline professionals’ perception of the involvement process is shaped by their cost-benefit analysis of having influence on organizational decisions. The key insight from the model and the empirical results is that frontline professionals do not automatically perceive more influence as beneficial but perceive consultation as more beneficial than joint decision-making, regardless of whether the organizational decision is proximal or distal to their daily work tasks (Paper C).

Second, the dissertation contributes by combining theory of employee involvement in decision-making with literature on professions to argue that the profession of the frontline professionals matters for how involvement of frontline professionals in the specific strategic organizational decision-making process of goal prioritization affects job satisfaction and perceived organizational goal conflict. The findings show that the negative association between involvement in organizational goal prioritization and perceived goal conflict is moderated by profession. That is, frontline professions in a profession with low or medium levels of discretion benefit more from being involved in organizational goal prioritization when it comes to decreasing organizational goal conflict, than frontline professionals in professions with high levels of discretion. In terms of the positive association between involvement in organizational goal prioritization and job satisfaction, the dissertation finds some indications that frontline professionals with high and medium levels of discretion benefit more than frontline professionals with low levels of discretion, which is opposite of the relationship with perceived organizational goal conflict (Paper D).

Given the causal nature of the research question and expectations the dissertation uses survey-based experiments and unit and time fixed effects analyses of survey panel data, that aim to maximize the possibility of making causal claims to investigate the theoretical expectations. Most public administration and public management studies of employee involvement in decision-making rely on designs that do not allow for causal identification (see Pedersen & Stritch 2018a and Petersen 2020 for exceptions). Naturally, the survey-based experiments used here are strongest when it comes to making causal claims; however, the other designs have a higher degree of ecological validity.

Answering the research question contributes to the broader debate about emergent governance models such as New Public Governance and Internal Learning Regimes, by investigating how one of the key components of these

models functions in the public sector. In many ways, the results are good news for these models. It seems that frontline managers are inclined to involve frontline professionals when facing conditions of uncertainty, that frontline professionals perceive organizational decisions to be better when they have influence on them than when they do not, and that frontline professionals generally seem to benefit from having influence on the organizational decision of goal prioritization when it comes to employee outcomes.

Limitations and future remedies

As argued above, the dissertation provides several contributions. However, all research comes with limitations, and in the individual papers, I discuss in detail the limitations of the designs used. Here, I will discuss some of the more general limitations of the dissertation as well as potential future remedies.

A first limitation pertains to the generalizability of the results, and there are at least two aspects to consider. First, Danish public hospital departments are chosen as research setting because they are deemed suitable to test the theoretical expectations. However, the question is how far the results travel. On the one hand, the results might travel to public organizations where frontline managers face situations of uncertainty, and where professionalized employees solve complex tasks. On the other hand, due to the focus on physicians, a highly professionalized type of public employee, and because healthcare in many ways is the most complex and professionalized public service, employees and managers in public healthcare organizations may behave differently than employees and managers in other types of public organizations (Ackroyd et al., 2007). After all, an insight from the dissertation is that when it comes to the effects of involving frontline professionals in organizational decision-making, employees from different professions might benefit differently, dependent on the type of profession they belong to, at least in relation to some employee outcomes (Paper D).

Second, in Denmark, employees are required by law to be indirectly and formally involved in some organizational decisions through their union representative (e.g., Bjørnholt et al. 2021; Hansen 2015). That is, there is some formalized indirect employee involvement besides the direct employee involvement investigated in this dissertation. This may affect how the results would travel to contexts where employees are not formally involved to the same extent. For instance, employees' interest in being directly involved might be greater in such contexts. However, trade-offs between finding a case that is suitable to test the different theoretical expectations and the generalizability of the results is needed, and these potential limitations can (of course) be remedied by trying to replicate the findings in other public organizational contexts

than Danish public hospital departments in the future. Indeed, there is a general call for more replication studies within public administration research (e.g., Pedersen & Stritch 2018b; Walker et al. 2019), and the findings of this dissertation should and could be replicated in different settings. For instance, the theoretical model proposed in Paper C is tested with a survey experiment among physicians, but the model pertains to all frontline professionals, and it could be tested in other contexts and across different professions like teachers, police officers and caseworkers, with the same experiment.

A second limitation is that in the study of how the employees' profession moderates the effect of employee involvement in organizational decision-making, the dissertation only focuses on the specific decision-making process of organizational goal prioritization (Paper D). This may be a limitation in the sense that organizational goal prioritization is only one type of organizational decision that can be categorized as a distal strategic type of organizational decision (Chapter 3). Other results in the dissertation indicate that frontline managers might involve in different ways in response to crisis, depending on whether the decision is strategic or operational (Paper B). However, it does not seem that employees perceive the involvement process differently, whether it is a distal strategic decision or a proximal operational decision (Paper C). Future research could try to remedy this limitation by explicitly investigating how involvement in strategic decisions and operational decisions respectively affect different employee outcomes.

A third limitation is that the dissertation does not directly investigate the moderating effect of employees' perception of the involvement process on the relationship between employee involvement in organizational decision-making and its outcomes (see Figure 1). Instead, it focuses on explaining what shapes the employees' perception of the involvement process with the assumption that perception matters for the relationship (Paper C). Future research could explicitly investigate how employees' perception of the involvement process moderates the effect of employee involvement in organizational decision-making on different outcomes, and thereby build on the insights provided by this dissertation.

A fourth and final limitation concerns the use of survey experiments, which, as discussed, imply a trade-off in terms of internal and ecological validity. Another point to keep in mind, which is somewhat related to the discussion of ecological validity, is that the dependent variables measure intentions (Paper C) and inclinations (Paper A) and not the actual behavior of the respondents. Even though we know that intention is rather strongly related to actual behavior, future studies could aim to test the expectations using behavioral data from organizations. Studying actual behavior is, however, tricky.

One potential way of investigating whether, for instance, performance feedback drives frontline managers' actual involvement of frontline professionals in organizational decision-making, could be to construct a dataset with actual performance for many public organizations over time, coupled with the frequency and length of staff meetings, as a proxy for involvement, in these organizations over time. It would then be possible to estimate whether changes in performance is associated with the frequency and length of staff meetings. However, getting such information is not straight forward, if even possible, and some of the direct involvement of frontline professionals could be more informal than staff meetings. Even so, it could be along those lines one should think, if one were to get closer to actual behavior in relation to involvement of frontline professionals in organizational decision-making.

Suggestions for future research

As seen above, limitations in a research project such as this one naturally point towards future research ideas. However, and perhaps more interesting, findings can also point towards future research. Here some potential new avenues for research that might be inspired by the results of this dissertation will be highlighted.

First, a key finding in the dissertation is that frontline managers will involve frontline professionals when facing conditions of uncertainty. This, however, gives rise to the question how motivated frontline professionals are to be involved in organizational decision-making under conditions of uncertainty. Paper C investigates the level of influence frontline professionals perceive to be most beneficial in decision-making processes when the treatment is sought to be as neutral as possible in terms of the reason for involving the frontline employees. That is, they are told that they are to be involved "to support the continued development of your unit". Future research could investigate whether a more explicit reason for involving frontline professionals in organizational decision-making, for instance crisis or negative performance feedback, might affect their motivation to be involved and the level of influence they perceive as beneficial. Research suggests that frontline professionals are less likely to take responsibility for negative performance feedback (Petersen, Laumann & Jakobsen 2019), and that employees are more likely to accept a manager's authority when the organization fails to reach its organizational goals (Nielsen & Jacobsen 2018). The reason the manager gives employees for involving them in organizational decision-making may therefore be key in determining their motivation to be involved. Thus, future research could investigate the extent to which frontline professionals are motivated to be involved in organizational decision-making in response to conditions of uncertainty,

such as negative performance feedback and crisis, and test whether the reason the managers give for involving them plays a role.

Second, and in relation to the above, it seems that the type of influence affects employees' perception of the decision-making process. A natural next step would be to investigate the extent to which the type of influence matters directly for the effect of employee involvement. Here it might be interesting to distinguish between employee outcomes such as job satisfaction and perceived conflict, and organizational outcomes such as organizational performance. We can speculate that even though employees might perceive higher transaction costs from higher levels of influence, such as joint decision-making, organizational performance may be more positively affected by joint decision-making than by consultation. After all, joint decision-making allows more individuals to be part of the decision-making process than consultation, which focuses more on sharing information. Thus, joint decision-making utilizes the information and knowledge the frontline professionals have as well as the increased processing capabilities when more individuals are part of the decision-making process. In decision-making processes, some level of disagreement and divergent views might be a good thing to overcome problems such as group think and ultimately result in better organizational decisions (Janis 1982; 1989; see also Kelman et al. 2016). We could potentially have a situation where joint decision-making increases conflict in the organization but improves organizational performance if the conflict does not escalate. We could also see a situation where consultation decreases conflict but does not increase organizational performance. Future research could investigate whether that is the case.

This leads to a third suggestion for future research. Involving frontline professionals in organizational decision-making is, as mentioned, ultimately expected to improve organizational performance, at least on dimensions that are aligned with professional norms (e.g., Jakobsen et al. 2018), but previous empirical studies find conflicting evidence of whether it has a positive effect on organizational performance (e.g. Andrews et al. 2007; Favero et al. 2016; Pasha 2018). An insight from the generic management literature is that it can have a positive effect under the "right" conditions (e.g., Wagner & Gooding 1987). This dissertation offers important insights regarding the conditions under which we would expect employee involvement in organizational decision-making to improve organizational performance, and future research could draw on these to investigate how involvement of frontline professionals in organizational decision-making affects organizational performance on different dimensions.

Practical implications

As a final point, the findings have some practical implications for policy makers and public managers, which should be read keeping in mind the limitations discussed above and the context in which policy makers, top bureaucrats, and public managers find themselves. First, the finding that public managers seem to involve frontline professionals in organizational decision-making in response to conditions of uncertainty, such as crisis and performance feedback, is, all things equal, good news for politicians and top bureaucrats who work towards implementing governance models that emphasize the involvement of frontline professionals in organizational decision-making. As argued, frontline managers function as gatekeepers who decide the degree to which frontline professionals are involved in organizational decision-making. That they involve frontline professionals in response to uncertainty is a necessary condition for them to produce the positive effects and findings mean that policy makers and top bureaucrats does not need to worry that frontline managers are a barrier to the involvement of frontline professionals.

However, and leading to the second implication, it does seem that there can be positive effects on employee outcomes from involving frontline professionals in organizational decision-making. The evidence that involving frontline professionals in organizational goal prioritization has a positive association with job satisfaction and a negative association with perceived organizational goal conflict is good news for policy makers and top bureaucrats who work towards implementing governance models that emphasize involvement of frontline professionals in organizational decision-making and frontline managers who choose to involve frontline professionals in organizational goal prioritization. However, frontline managers should consider the profession of their employees when deciding whether to involve them in organizational decision-making, as they might benefit differently dependent on their profession.

Finally, the finding that frontline professionals do not automatically perceive more influence as more beneficial when involved in organizational decision-making can have important practical implications for public managers. Public managers may consider offering frontline professionals influence corresponding to joint decision-making and merely consult them to obtain information and knowledge from them before making a decision. After all, joint decision-making requires that frontline professionals shift time and attention away from delivering public services. However, the trade-off of consulting them and not engaging in joint decision-making with them is that managers only get information from them and miss the benefit of multiple minds working on a decision.

In sum, the hope is that besides improving our understanding of the involvement of frontline professionals in organizational decision-making in the public sector from a scholarly point of view, the dissertation can shed some light on the potential practical implications of such involvement.

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Summary

Employee involvement in decision-making has gained renewed attention in recent years with the emergence of new governance models such as New Public Governance and Internal Learning Regimes. One component of these models is direct involvement of frontline professionals in organizational decision-making. The argument is that if these employees are involved in organizational decision-making, their knowledge can be utilized to overcome some of the complexity and uncertainty that is often associated with organizational decision-making in the public sector. However, the literature on employee involvement in organizational decision-making finds that creating better results via employee involvement is not straightforward.

This dissertation examines potential barriers to creating better results via employee involvement in the public sector. This is done by combining the theoretical framework of bounded rationality with theories about, for example, crises and professions and by using research designs that seek to maximize the possibility of drawing causal conclusions. The studies in the dissertation were all carried out among healthcare professionals in Denmark and include, among others, clinical directors, chief physicians, junior physicians, nurses and medical secretaries.

More specifically, the dissertation first examines the implicit assumption that frontline managers involve frontline professionals in decision-making when they face organizational decisions where there is uncertainty about the range of possible decisions and the potential consequences of these decisions. The dissertation focuses on two such situations. The first requires organizational decisions in response to performance feedback, and the second requires organizational decisions in response to crisis. The dissertation finds that clinical directors are more likely to involve their employees when they receive performance feedback that indicates that the department is failing to meet its goals, than when they receive feedback that the department is reaching or exceeding its goals. Furthermore, clinical directors are more likely to involve employees in decision-making when they receive feedback that compares their own department's results with other comparable departments' results, than when they receive feedback that compares their department's current and previous results. The thesis also finds that the more the hospital departments were affected by the COVID-19 crisis, the more the chief physicians involved physicians without management responsibility in operational decisions but not in strategic decisions. These results indicate that frontline managers are inclined to involve their employees when they face organizational decisions

where there is uncertainty about the range of possible decisions and the potential consequences of these decisions.

Second, the dissertation examines whether the degree of influence on organizational decisions affects whether junior physicians find that being involved in organizational decisions is beneficial. The dissertation finds that junior physicians always perceive that it is better to be consulted and/or to enter in joint decision-making with management than having no influence on organizational decisions, no matter whether the organizational decisions are about formulating the department's vision or changing work processes. Furthermore, junior physicians prefer to be consulted rather than to enter in joint decision-making with management, no matter whether the organizational decision is about formulating the department's vision or changing the work processes. The results indicate that frontline employees see it as beneficial to be involved in organizational decisions, but that they see consultation as more beneficial than participating in joint decision-making with management.

Third and finally, the dissertation examines the relationship between employee involvement in organizational goal prioritization and the employees' experience of organizational goal conflict and job satisfaction, dependent on whether the employees belong to a profession with a low, medium, or high degree of discretion. Here, the dissertation finds a negative relationship between employee involvement in organizational goal prioritization and the employees' perceived organizational goal conflict, so that higher levels of employee involvement are associated with lower degrees of perceived organizational goal conflict. Furthermore, the dissertation finds a positive relationship between employee involvement in organizational goal prioritization and job satisfaction. Most importantly, the negative association between employee involvement in organizational goal prioritization and perceived organizational goal conflict is stronger for employees in professions with low (medical secretaries) or medium (nurses, therapists and biomedical laboratory scientists) discretion than for employees in professions with high discretion (physicians).

The dissertation also discusses the advantages and disadvantages of the research designs used and how far the results of the dissertation travels. In addition to this summary, the dissertation consists of four research papers, three single-authored and one co-authored, all with the aim of publication in international scientific journals.

Dansk resumé

Medarbejderinvolvering i beslutningstagning er igen kommet i fokus de senere år med fremkomsten af nye styringsmodeller såsom New Public Governance og Interne Læringsregimer. En komponent i begge styringsmodeller er direkte involvering af frontlinjemedarbejdere i organisatorisk beslutningstagning. Argumentet er, at hvis frontlinjemedarbejdere såsom sygeplejersker, læger, lærere, politibetjente og socialrådgivere involveres i organisatoriske beslutninger, kan deres viden udnyttes til at få bugt med noget af den kompleksitet og usikkerhed, der ofte er forbundet med organisatorisk beslutningstagning i den offentlige sektor. Litteraturen om involvering af medarbejdere i beslutningstagning finder dog, at det ikke er så ligetil at skabe bedre resultater via medarbejderinvolvering.

Formålet med denne afhandling er at undersøge nogle af de potentielle barrierer for at skabe bedre resultater via medarbejderinvolvering i den offentlige sektor. Dette gøres ved at kombinere teori om begrænset rationalitet med teorier om eksempelvis kriser og professioner og ved at benytte forskningsdesigns, der søger at maksimere muligheden for at drage kausale konklusioner. Undersøgelserne i afhandlingen er alle foretaget blandt sundhedspersonale i Danmark og inkluderer blandt andet ledende overlæger, overlæger, yngre læger, sygeplejersker og lægesekretærer.

Mere konkret undersøger afhandlingen for det første den implicite antagelse, at frontlinjeledere involverer frontlinjemedarbejdere i organisatoriske beslutninger, hvor der er usikkerhed om, hvilke beslutninger der kan tages og deres konsekvenser. Afhandlingen fokuserer på to sådanne situationer: organisatoriske beslutninger i respons til resultatinformation og organisatoriske beslutninger i respons til krise. Afhandlingen finder, at ledende overlæger er mere tilbøjelige til at involvere deres medarbejdere, når de modtager resultatinformation, som tilsiger, at afdelingen ikke når sine målsætninger, end når de modtager resultatinformation, som tilsiger, at afdelingen når eller overstiger sine målsætninger. Endvidere finder afhandlingen, at ledende overlæger er mere tilbøjelige til at involvere medarbejderne, når de modtager information, der sammenligner deres egen afdelings resultater med andre sammenlignelige afdelings resultater, end når de modtager information, der sammenligner deres afdelings nuværende og tidligere resultater. Endvidere finder afhandlingen, at jo mere hospitalsafdelingerne var påvirket af coronakrisen, jo mere involverede de ledende overlæger læger uden ledelsesansvar i operationelle beslutninger, men ikke i strategiske beslutninger. Samlet set peger

disse resultater på, at frontlinjeledere er tilbøjelige til at involvere deres medarbejdere, når de står overfor organisatoriske beslutninger, hvor der er usikkerhed om, hvilke beslutninger der kan tages og deres konsekvenser.

For det andet undersøger afhandlingen, hvorvidt graden af indflydelse på organisatoriske beslutninger betyder noget for, hvorvidt yngre læger oplever det som gavnligt at blive involveret i organisatoriske beslutninger. Afhandlingen finder, at yngre læger altid oplever, at det er bedre at blive konsulteret og/eller at indgå i fælles beslutninger med ledelsen end ikke at have nogen indflydelse på organisatoriske beslutninger, uanset om beslutningerne knytter sig til at formulere afdelingens vision eller at ændre arbejdsgangene. Endvidere finder afhandlingen, at yngre læger foretrækker at blive konsulteret frem for at indgå i fælles beslutning med ledelsen, uanset om det er organisatoriske beslutninger, der knytter sig til at formulere afdelingens vision eller at ændre arbejdsgangene. Resultaterne peger altså på, at frontlinjemedarbejdere ser det som gavnligt at blive inddraget i organisatoriske beslutninger, men at de ser konsultation som mere gavnligt end at indgå i fælles beslutningstagning med ledelsen.

For det tredje, undersøger afhandlingen, om sammenhængen mellem medarbejderinvolvering i prioriteringen af organisatoriske målsætninger og medarbejdernes oplevelse af organisatorisk målkonflikt og jobtilfredshed afhænger af, om medarbejderne tilhører en profession med lav, mellem eller høj grad af diskretion. Her finder afhandlingen for det første, at der er en negativ sammenhæng mellem medarbejderinvolvering i prioriteringen af organisatoriske målsætninger og medarbejdernes oplevelse af organisatorisk målkonflikt, således at højere niveauer af medarbejderinvolvering er forbundet med lavere grad af oplevet organisatorisk målkonflikt. For det andet er der en positiv sammenhæng mellem medarbejderinvolvering i prioriteringen af organisatoriske målsætninger og jobtilfredshed. For det tredje, og mest centralt, er den negative sammenhæng mellem medarbejderinvolvering i prioriteringen af organisatoriske målsætninger og medarbejdernes oplevelse af organisatorisk målkonflikt større for medarbejdere, der tilhører en profession med lav (lægesekretærer) eller mellem (sygeplejersker, terapeuter og bioanalytikere) grad af diskretion sammenlignet med medarbejdere fra en profession med høj diskretion (læger).

Endelig diskuterer afhandlingen fordele og ulemper ved de benyttede forskningsdesigns samt hvor langt konklusionerne i studierne kan strækkes. Afhandlingen består, udover denne sammenfatning, af fire forskningsartikler, tre skrevet alene og en skrevet med en medforfatter, alle med det formål at opnå publicering i internationale videnskabelige tidsskrifter.