




RESEARCH ARTICLE

# Coping with the unforeseen: bounded rationality and bureaucratic responses to the COVID-19 crisis

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## Abstract

The outbreak of COVID-19 unleashed a severe crisis in society. The suddenness and speed with which the disease spread into a global pandemic makes it an outstanding case for showing how bureaucracy acts in response to a crisis marked by uncertainty and urgency. This article focuses on the role played by the central government bureaucracy in preparing and enacting the Danish government's response to the COVID-19 crisis. It is based on full access to internal government files related to crisis management during the winter and spring of 2020. These files include memos, e-mails, decision notes, and draft decisions from key civil servants. The article demonstrates the strength of the theory of bounded rationality when it comes to analyzing the interaction between top civil servants and political executives. Moreover, it shows how administrative and political executives can mold a governmental organization to overcome the inertia inherent in bureaucratic organization and procedures.

**Keywords:** Bureaucracy; bounded rationality; politics; public organizations

Bureaucracy is indispensable to the implementation of public policy and to assisting political executives with the enactment of their policies. Bureaucracy's defining characteristics are hierarchy and specialization, formal procedures, and standardized routines. These qualities make bureaucratic action predictable and reliable and contribute to the relative effectiveness of political decision-making. However, the very same characteristics endow public bureaucracies with an inertia that risks narrowing their focus to immediate experience and established procedures. They also tend to reduce the bureaucracy's responsiveness to the politically defined needs of a situation. This tension raises the question of how public bureaucracy reacts to the unforeseen.

In analyzing this question, this article contributes to behavioral public administration research, which is a research field that in recent years has revitalized scholarly interest in the bounded rationality approach to politics and administration (see Grimmelikhuijsen et al. 2017). One set of actors, however, has been missing from behavioral public administration research, namely political executives and top-level bureaucrats. Instead, the majority of studies have focused on citizens and to some extent frontline public employees (Battaglio et al. 2019, p. 10). In this article, we contribute to behavioral public administration research by studying the behavior and decisions of those actors who occupy the stages where the most significant and far-reaching decisions are made.

In particular, we use the bounded rationality approach to guide our analysis of how top-level bureaucrats react to the unforeseen. Being unforeseen is a key characteristic of a societal crisis, where “a social system – a community, an organization, a policy sector, a country, or an entire region – experiences an urgent threat to its basic structures or fundamental values, which harbors many ‘unknowns’ and appears to require a far-reaching response” (Boin et al. 2017, p. 5).

The outbreak of COVID-19 in the winter of 2020 was such an event. The suddenness, speed, and seriousness with which the disease spread make it an outstanding case for showing how the bureaucracy acts in response to crisis. Can the bureaucracy escape tunnel vision (Posavac et al. 2010) and standard procedures to develop new and adequate solutions to crisis-generated challenges, and what is the role of politicians in this process?

The article covers the response of Danish central authorities to COVID-19 in the winter and spring of 2020, when the disease spurred a societal crisis. Normally, high-level policy advice and coordination are exempted from public scrutiny. Here we take advantage of our unrestricted access to all government documents related to the management of COVID-19 from January to March 2020. These documents include memos, e-mails, decision notes, and draft decisions that top civil servants produced to prepare and enact the government’s response during the early months of the COVID-19 crisis (Folketinget 2021a, 2021b).

We concentrate on the period from January 2020, with the spread of information on an unknown disease, to March 2020, with the unprecedented interventions to manage this threat to public health and their wide-ranging social and economic implications. For this short period, it makes sense to speak of a crisis. From the time the crisis was acknowledged, it raised deep concerns about how to cope with the imminent threat to public health and how to manage collateral damage to socio-economic stability. By studying this period, we learn how specialist agencies responded to the crisis and to their unaccustomed involvement in interactions with the political executive level. The analysis offers unique insight into the political moldability of established bureaucratic modes of operation and thus sheds new light on the relationship between politicians and bureaucrats. We demonstrate that the theory of bounded rationality (BR) is also a powerful tool to understand how top-level bureaucrats cope with the unforeseen. This adds an analytical tool to behavioral public administration research to better understand how bureaucracy interacts with a political executive that is sensitive to politico-strategic concerns.

### COVID-19 as a politico-administrative crisis

The rapid development of COVID-19 into a pandemic has spurred a vast amount of research within political science. One field analyzes citizens' reactions to the disease and their interactions with the authorities and the government. These are mostly survey-based studies of compliance and trust and also include studies of government communication with citizens (Rubin and de Vries 2020; Belle and Cantarelli 2021; Jennings et al. 2021; Mizrahi et al. 2021; Robinson et al. 2021; Anderson and Hobolt 2022; Bauhr and Charron 2023). Other studies analyze the policies enacted to combat the new disease. They focus on the differential timing of governmental interventions and their relative stringency (Capano et al. 2020; Lee et al. 2020). They also grapple with the institutional and political aspects of the crisis. Many questions center on the importance of centralization and decentralization in managing the crisis (Capano 2020; Rocco et al. 2020; Freiburghaus et al. 2023). Other analyses ask whether governments' responses to COVID-19 are explained by their diverging institutional and administrative capabilities (Capano 2020; Capano et al. 2020; Cronert 2022).

The COVID-19 studies concur that fighting the pandemic was a high political issue, involving the political executive, parties in parliament, government departments, and expert health authorities. This directs attention to political and administrative decision-making. One pertinent question regards the role played by the health authorities vis-à-vis the political executive. Another surrounds the role played by the departmental bureaucracy, serving as advisors to the government and intermediaries between specialist authorities and political decision-makers. Realizing that deciding how to react to COVID-19 was a political issue of utmost concern, a third question is whether and how political strategies entered into government decision-making (Maor 2020; Maor and Howlett 2020; Maor et al. 2020).

The outbreak of COVID-19 immediately raised questions as to the biological and epidemiological characteristics of the new disease, where considerable uncertainties were involved (Christakis 2020; Rabadan 2020). Still, the health authorities were called upon to come up with an informed opinion on the disease and how to deal with it. As COVID-19 entered the governmental agenda, new questions arose. What information could the health authorities provide to political and administrative decision-makers, and how would they react to it given the uncertainties involved? How did the advice and information provided by the health authorities fit with deliberations within the cabinet?

Existing COVID-19 research also taps into the broader field of crisis management studies, whose starting point is the uncertainty and urgency of events that threaten the social order. Crisis scholarship has shown us that even though crises share these general traits, they come in different shapes. There is the sudden outbreak of natural disasters like Hurricane Katrina (Moynihan 2008), which, once acknowledged, leaves little doubt of either its causes or its containment. Terrorist attacks like 9/11 in 2001 and the Utøya attack in 2011 spur completely different reactions within the public and from the authorities (Hammond 2007; Christensen et al. 2013). COVID-19, meanwhile, is best conceived as “a creeping, protracted, up-and-down-and-up-again crisis” (Boin et al. 2021, p. 37).

These different crises end up figuring highly on the political agenda. Policymakers see themselves brought into a situation where they have to weigh up expert advice, based on what may turn out to be fragile evidence and by definition on narrowly defined professional competence, against wider social concerns, including the strategic consideration of political consequences for their own positions. The 1976–1977 swine flu affair illuminates the complexities involved, as then-USA Secretary of Health Joseph Califano admitted: “I had frequently faced situations with little or no initial knowledge of the complex substance of the events or subject matter involved. This swine flu situation surprised and bedeviled me, because I knew so little that it was difficult even to determine the *questions to ask* in an attempt to reach an intelligent decision” (Neustadt and Fineberg 1978, p. IV). This was also the case for the political executives managing COVID-19. The crisis literature draws attention to the fact that most countries had health emergency plans, but asks whether and when such plans are just “fantasy documents” (Boin et al. 2021, pp. 32, 44). It also has consistently reminded us that crisis management is dependent on bureaucratic processes where procedure, bureau politics, and turf considerations may get in the way of designing initiatives that are up to the challenges of situational contingencies (Rosenthal et al. 1991; Brändström and Kuipers 2003; Hindmoor and McConnell 2013).

Crisis management is decision-making under very special circumstances. Extreme uncertainties tempt administrative and political decision-makers to adopt a wait-and-see attitude, but the high stakes involved prompt them to act. In the next section, we introduce bounded rationality as pioneered by Herbert Simon as a theoretical framework well suited to improving our understanding of high-level decision-making in response to the COVID-19 pandemic.

### Simon’s scissors and crisis decision-making

Bounded rationality is a human condition. Individual decision-makers have limited cognitive capacity, with consequences for their ability to solve complex problems. Still, the strength of this constraint varies. It is in the meeting between the individual decision-maker and the task environment that it becomes clear how serious the constraint on decision-makers’ problem-solving capacity is. Herbert Simon (1990, p. 7) phrased it this way: “Human rational behavior . . . is shaped by a scissor whose two blades are the structure of task environments and the computational capabilities of the actor.” The implication is that individual cognitive constraints and computational capacity vary in importance. As Bendor (2010, p. 2) argues, “theories of BR have cutting power – especially when compared to theories of (fully) rational choice – only when both blades operate.” The outbreak of COVID-19 and the ensuing pandemic was such a situation.

Political and administrative decisions are highly institutionalized. Formal procedures regulate decision-making. Here, the public bureaucracy is particularly important. It has a professional staff and a specialized organization that widens its capacity for preparing and taking decisions. This was an essential insight established by Herbert Simon in *Administrative Behavior* (Simon 1976 [1945], pp. 79–80), and it finds resonance in later scholarship (Wilson 1989; Jones 2001; Bendor 2010; Bendor 2018; Mintz et al. 2022).

Thus, administrative decisions are preprogrammed through rules, procedures, and routines (March and Simon 1958; Kaufman 1960; Kaufman 1981; Cyert and March 1992, pp. 91–115; Mintz et al. 2022, pp. 95–96). These decisions deal with situations where the problem to be solved is predefined, and where criteria for making the right decision are laid down in a legal act or a budget.

The fascinating aspect of a crisis like COVID-19 is that all these normal decision-making characteristics are completely absent. There is no relevant expertise that can offer a valid solution to the problem with which the bureaucracy is confronted. In fact, bureaucracy can even present an obstacle to policymakers' ability to find appropriate responses in situations marked by surprise and urgency. One source of this problem is created by design. Bureaucracies' internal specialization, formal lines of communication, and command-and-control hierarchy are set up to prioritize a particular perspective on the tasks allocated to the authority at hand (Hammond 1993; Hammond et al. 2007). An emergent crisis stirs up this view of the world because suddenly the task environment changes in a way that questions its relevance. Organizational blindness is the result (Boin et al. 2021, p. 109). As a consequence, decision-makers and organizations engage in disproportional information processing, where they tend to stick to the same views and decisions too long – and if they change, they change rather suddenly instead of in a way proportional to the information signals they receive (Jones 2001; Jones and Baumgartner 2005).

However, according to Simon (1962), complex organizations of the kind described above are also “nearly decomposable systems in which the interactions among the subsystems are weak, but not negligible.” His argument then is that “in their dynamics, hierarchies have a property, near-decomposability, that greatly simplifies their behavior.” Confronted with severe crisis, this near-decomposability allows policymakers to split up problems and allocate them to organizational entities that are designed to operate in partial, but not full, independence from each other. This opens for parallel decision-making where policymakers renounce full hierarchical control in order to expand problem-solving capacity.

The main observable implications from this discussion of insights generated by the bounded rationality approach are summarized in the following hypotheses. The hypotheses will guide and help structure our empirical analysis, but our main interest is not to corroborate or falsify them. The ambition is to apply bounded rationality theory to the rich empirical data material to explore the insights that can be gained about bureaucratic responses in times of extreme uncertainty and urgency. That approach, as we will demonstrate in the analysis, also reveals important aspects of crisis decision-making that are not well understood by the bounded rationality framework. In the concluding part of the article, we return to these broader theoretical questions.

**Hypothesis 1a:** Bureaucratic inertia resulted in a delayed response to the emergent crisis.

**Hypothesis 1b:** Bureaucratic inertia produced reactions to the crisis that did not appreciate the actual changes in the task environment.

**Hypothesis 2:** Over time, central decision-makers reacted to the crisis by disproportionately updating their analysis of the task environment, moving from under- to overreaction.

**Hypothesis 3a:** Facing bureaucratic inertia and problem overload, the political executive resorted to alternative sources of information and advice beyond default institutions.

**Hypothesis 3b:** Facing bureaucratic inertia and problem overload, the political executive enacted procedural and organizational changes that prioritized their preferred strategy for crisis management.

**Hypothesis 3c:** Facing bureaucratic inertia and problem overload, the political executive expanded organizational capacity by setting up parallel tracks for handling public health and social-economic issues.

We can only account for the behavior of top civil servants if the analysis includes the interaction between these individual actors and the political-institutional context within which they operate (Bertelli and Riccucci 2020). We rarely have the opportunity to observe this interaction behind the veil (Mintz et al. 2022, p. 150), and this might be the reason why the recent advances in behavioral public administration have largely ignored the elite level. This study is an exception (see below) as we had unprecedented access to files normally not accessible to outsiders on how the authorities – that is, the prime minister’s office and the health authorities as well as the departments of business, employment, finance, and justice – responded to a major and unforeseen crisis.

## Data

In June 2020, the Standing Orders Committee of the Danish parliament agreed to launch an independent inquiry into Denmark’s management of the COVID-19 crisis. One of the authors of this article chaired the committee, while the other author was employed full time in the secretariat of the committee (see [https://www.ft.dk/da/aktuelt/nyheder/2021/01/udredning-om-COVID\\_19](https://www.ft.dk/da/aktuelt/nyheder/2021/01/udredning-om-COVID_19)). The terms of reference asked for an analysis of the way in which the authorities managed the crisis in its initial stage, from January to April 2020. The purpose was to evaluate the experience so that lessons relevant to future health crises could be drawn.

The terms of reference also stipulated that the committee appointed to conduct the inquiry “gets access to any relevant files and documents, including the materials and information that reached the prime minister’s office at the early stage from other departments and their agencies” (Folketinget 2020a). As a follow-up, the prime minister and the president of parliament agreed on guidelines for the committee’s access to materials from the authorities related to the management of the COVID-19 crisis (Folketinget 2020b).

**Table 1.** List of abbreviations

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- AC group: Coordination forum of high-level civil servants from all ministries involved in COVID-19 management
  - DHA: The Danish Health Authority (*Sundhedsstyrelsen*)
  - DoB: Department of Business
  - DoE: Department of Employment
  - DoF: Department of Finance
  - DoH: Department of Health
  - DoJ: Department of Justice
  - ECDC: European Centre for Disease Prevention and Control
  - E-SIK: A high-level civil servants' committee charged with preparing meetings in the Cabinet Security Committee
  - IOS: The International Operative Staff
  - MoF: Ministry of Foreign Affairs
  - NOST: The National Operative Staff
  - NOST+: A superstructure of the NOST
  - PMO: Prime Minister's Office
  - SSI: The national disease control unit (*Statens Serum Institut*)
  - WHO: World Health Organization
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These conditions for an inquiry into an ongoing and politically high-profile case are unprecedented. The committee's report is built on rich information regarding both the basis for the decisions made by the government and the interaction between the government, the ministerial departments, and the health authorities. Its sources are the authentic files that figured in the actual decision-making processes. Hence, the analysis is subject to neither the deficient memories of actors nor the risk of post hoc rationalizations that mar analyses based on interviews. However, even with full document access, there are gaps not covered by documents, primarily because minutes were not taken from many of the hundreds of informal, hastily arranged, and often virtual meetings that took place during these hectic weeks. Similarly, minutes are never taken from meetings in the cabinet committees. However, e-mail correspondence from before and after central meetings does in most cases provide solid insight into the decisions and actions initiated in such meetings.

Several departments, agencies, and other institutions were involved in managing the crisis. Table 1 lists them together with the abbreviations we use in the reporting of the analysis. Altogether, the sources contain more than two million pages. The Appendix describes our documentary sources in detail.

### Responding to a new disease

In major crises, governmental authorities typically have very uncertain information about the scope and character of the crisis, but they immediately need to communicate and make sense of it to the public. Moreover, policymakers have little time to prepare and make decisions (see also Boin et al. 2017, 2021). In early January 2020, when they first learned about the new coronavirus, this challenge was very real for health authorities across the world. When boundedly rational decision-makers, according to Simon's scissors, face such a challenge, they will respond in ways

framed by prior experience in order to simplify and to reduce the complexity and uncertainty of the situation.

That was what the Danish health authorities did. As early as mid-January 2020, they sent out guidelines to health personnel asking them to follow the same recommendations for COVID-19 as those applied for MERS and SARS ten to twenty years earlier. Such guidelines were already in place, and the relevant specialist hospital wards had gone through drills directed at handling rare but deadly infectious diseases like SARS and Ebola. Thus, the handling of the new disease was almost immediately channeled into well-known procedures and action programs. Given that it was already known at this point that the coronavirus's genetic code was 80% identical to that of SARS, it was not a random or irrational decision to categorize it similarly; but it certainly was a boundedly rational decision based on incomplete information, cf. Hypothesis 1a.

Around February 5, 2020, the Danish health authorities communicated that the COVID-19 outbreak was more comparable to a flu. They thereby moved the understanding of the new disease into another category, which can be seen as a response to the growing accumulation of information indicating a mismatch between reality and the initial categorizations of the new disease. Yet the health authorities did not invent a new category for COVID-19. Once more, they placed the new disease within a familiar category for which emergency and preparedness plans were already in place. Thus, as stated in Hypothesis 1a, bureaucratic decision-makers in the early phases chose their responses from a limited set of alternatives structured by default programs.

The early responses reveal another characteristic of boundedly rational bureaucratic decision-making. Once the decision-makers had settled on an understanding of the new problem, they stuck to it despite new information challenging their earlier decisions (H1b). Up until February 24, 2020, in their daily reports to the DoH and the PMO, the DHA insisted that the COVID-19 outbreak was likely to be contained to China. Until that point, their daily reports still held it plausible that "... the outbreak can be confined to mainland China, given the initiatives that the Chinese authorities have already implemented." The DHA also maintained that there was no strong data indicating transmission of COVID-19 before the onset of symptoms.

This was not an adequate dissemination of the information that the DHA had received from SSI, the national disease control unit. As early as January 31, the SSI passed an internal update to the DHA stating that "person-to-person transmission from asymptomatic cases plays a role in the spread of the disease" (Folketinget 2021a, p. 161), and on February 3, the SSI relayed a message from the WHO and the ECDC stating that countries should begin to prepare for a new phase characterized by person-to-person transmission. If not ignoring it, DHA's recommendations to the government severely downplayed this information.

The SSI was more open than the DHA to new information challenging its initial understandings of the new disease. Yet the SSI's bi-weekly risk assessments in January and February 2020 did not contain clear recommendations for action, and in late February, the SSI still didn't expect that a COVID-19 outbreak would hit Denmark until the fall of 2020. Thus, the DHA was not the only organization



characterized by limited updating of information, even though there was new and more accurate information available on the disease.

The hesitant attitude of the DHA was reinforced through the organization of the national health administration, with the DHA being responsible for the coordination of health emergencies. This role is enshrined in the 2013 plan for managing a pandemic flu, which remained central to the DHA's analysis throughout the winter of 2020. This analysis also informed the position taken by the DoH. The result was that the minister and his department backed up the hesitant approach of the DHA in the early phases of the disease response.

So far, this behavior is consistent with Hypotheses 1a and 1b. However, the permanent secretary of the PMO was increasingly skeptical of the advice provided by the DHA. As early as January 21, 2020, she ordered a status update from the DoH. This marked the beginning of a series of orders from the PMO to the DoH over the next many weeks. Most of these orders were answered by the DHA, but the PMO was not assured by DHA's responses. The permanent secretary of the PMO wanted the DHA to make plans based on worst-case scenarios, and in an e-mail from February 11, 2020, her concluding salvo sounded: "Hope is not a strategy."

The retrieval of Danish citizens from Wuhan around February 1, 2020, illustrates how at that point the PMO already wanted to be informed about every detail of the Danish health authorities' COVID-19 handling. For instance, they asked follow-up questions about where information stands and hand sanitizers were to be placed in Copenhagen Airport. This step is partly consistent with Hypothesis 2, stating that actors will disproportionately update their information in a changing task environment. During the early weeks of February 2020, updating was remarkably cautious, and it is noteworthy that the update that did come was triggered by the permanent secretary of the PMO. Formally, the PMO is placed at a long arm's length from the health authorities, but its permanent secretary skipped formalities and from the latter half of February took the lead. Thus, the inertia at this early point in time was only broken because the core executive intervened, relying on its *de facto* coordinating authority. Still, it took another few weeks before this intervention materialized into political action informed by a principle of "extreme caution" as stated by the prime minister.

### **A dedicated COVID-19 organization**

On February 27, 2020, the first Dane tested positive for COVID-19. In the hectic days following, the PMO set up a dedicated COVID-19 organization. The decision involved three major steps to manage the crisis triggered by COVID-19. First, central coordination from the PMO was installed to an extent never seen before. Second, measures were taken to link the executive core with operational emergency management. Third, deck-stacking (Bendor et al. 1987) came to play an important role in mobilizing both organizational capacity and political support for the measures to be taken.

These steps taken by the PMO hold important lessons for the analytical strengths and weaknesses of BR theory, which Hypotheses 3a and 3b capture concisely. BR

**Table 2.** The management of the COVID-19 crisis, January–April 2020

Phases and strategies	Key actors	Organization	Coordination	Task environment
Phase 1 January 1–February 26	DHA SSI DoH	Default organization and coordination procedures	PMO DHA	Limited global spread of the virus Not expected to affect Denmark
Surveillance				
Phase 2 February 27–March 10	PMO DoJ DoB DoF MoF DHA SSI	Dedicated COVID-19 organization set up and operative in the day following February 26	PMO/Prime Minister Public health track: DoJ AC group NOST+ IOS Economic aid packages: DoB	Virus reaches Europe General agreement that the situation demands action, but some disagreement as to proper steps
Phase 3 March 11–mid-April	PMO DoJ DoB DoF DoF MoF DHA SSI	Dedicated COVID-19 organization remains in place	PMO/Prime Minister Public health track: DoJ AC group NOST+ IOS Economic aid packages: DoB and the coronavirus task force	With the partial lockdown infections decrease, and a gradual reopening is prepared
Mitigation with partial lockdown and economic aid packages				

theory emphasizes the importance of formal bureaucracy. It is an indispensable instrument for overcoming some of the constraints on individual actors confronted with an uncertain and complex task environment, and simultaneously a source of distortion and inertia when this task environment takes a sudden and surprising turn. Here, the COVID-19 case lays bare the extent to which the organization is moldable. However, it also makes apparent how a bureaucratic organization reshaped to circumvent the inherent inertia develops dysfunctions of its own. This is precisely what BR theory makes us expect.

Table 2 gives an overview of Denmark's crisis management as the situation changed from phase to phase. It shows how decision-makers adapted to these changes by setting up a dedicated COVID-19 organization. It also shows the principal characteristics of this complex organization, which both served the political executive and established a link between it and the operational crisis organization.

The PMO's creation of a dedicated COVID-19 organization within the central government also points to areas where BR theory is found wanting. It pays scant attention to public bureaucracy being embedded in a highly politicized environment. One implication is that the authority vested in the political executive has the potential to reset the rules of the game, for example through an immediate reorganization of central government (Scharpf 1997, pp. 171–174, 198–200). Another implication is the resort to extensive use of deck-stacking involving

political stakeholders affected by the emergency measures to be launched. Such deck-stacking placed ministerial departments in a vital role, getting momentum from the very fact that it was performed in the shadow of the political executive (Bendor et al. 1987; Scharpf 1997; cf. Pressman and Wildavsky 1973, p. 109).

Constitutionally, Danish ministers enjoy wide autonomy. However, throughout the crisis departmental ministers and their ministries operated in the long shadow of a strong prime minister, lending authority to a vigilant PMO (Scharpf 1997, p. 197). This is at the core of Hypothesis 3, which moves us beyond classical BR theory. This became clear at the transition from Phase 1 to Phase 2 (see Table 2). In a long e-mail to her peers on March 9, 2020, the permanent secretary urged that “the risk is not doing too much too fast – it is doing too little too slowly, including too incrementally. That is unaccustomed to us as civil servants.” After informing them in passing that from now on the DoJ would act as the lead department, she concluded “now it is time for all of you to lean in . . . We need to get all of you, men and women, on deck to think and act.”

### ***Coordination at the apex***

Over a few days at the end of February 2020, the government created a temporary organization to handle the imminent crisis. The decisions and procedures were designed and orchestrated by the PMO. The procedures were request-driven, with the PMO positioned as the unit responsible for serving the prime minister and the key ministers surrounding her and for the retrieval of inputs for decision-making at the cabinet level.

The PMO has limited staff capacity. The same applies to the DoH, the department most affected by COVID-19. To cope with this challenge, the PMO took two steps: appointing the DoJ as the unit responsible for general coordination, and deciding that the DoJ should join forces with the DoH when it came to drafting measures to protect public health. Both departments allocated practically their entire staffs to the handling of COVID-19.

With the acknowledgment of COVID-19 as a societal threat that reached beyond the health sector, the next step was to call in contributions from other departments and their agencies. The PMO thus set up the so-called AC group, chaired by a deputy permanent secretary from the DoJ and consisting of peers from many different departments.

The AC group was modeled after an ad hoc group created in 2009 when an outbreak of swine flu was perceived to be a threat to public health for a time. Then, a group of civil servants was commissioned to coordinate and supervise the development of the situation. As a young civil servant, the permanent secretary of the PMO had been a member of that group. Thus, the permanent secretary was no less affected by past experiences than the senior staff at the health authorities. Her approach to the new threat was shaped by her time in the DoJ and her former engagement with both the swine flu outbreak and the terrorist attack on Copenhagen in February 2015, a few days after she had taken over as permanent secretary of the DoJ. In an e-mail from January 21, 2020, to her colleagues in the DoH and the DoJ, she had already referred to her experience from the 2009 swine flu.

The mandate of the AC group was “to ensure interdepartmental coordination and stringent communication of the potential consequences for society of COVID-19” (Folketinget 2021a, p. 135). During the crisis, the group served as the hub for managing an enormous administrative operation working within extremely tight time schedules. Its main instrument was a dynamic schedule listing incoming requests and receiving and consolidating departmental responses to them before their transmission back to the PMO. Importantly, in this course of events the DHA was bypassed.

Within the resting emergency organization, the NOST is responsible for the coordination of all operational activities in Denmark. It is designed to handle transient and local emergencies, with members who are liaison officers from central government agencies with generalist skills. It is not designed for a prolonged national operation calling upon very specialized expertise. With COVID-19, the government was confronted with a crisis of utmost national concern that called for immediate action. This was a challenge stretching beyond policymaking. The general policy laid out by the political executive had to be translated into operational strategies that again had to be implemented by the authorities.

At the end of February 2020, the PMO recognized these challenges and stressed the need for a staff structure tailored to a situation that reached beyond a narrow public health concern to set up a “strengthened, coordinated handling of any collateral challenges and problems ensuing from the situation” (Folketinget 2021a, p. 137). Consequently, a small staff group informally named NOST+ was installed. It was inserted between the NOST and the E-SIK, the high-level civil servants’ committee preparing meetings in the Cabinet Security Committee.

The NOST+ turned out to play a double role in the management of COVID-19. One was the national coordination of activities at the level of local and regional health and police authorities. The other was to act as liaison between practical implementation and central government bodies, especially the DoJ, the AC group, and the PMO. In this capacity, the NOST+ also became involved in policymaking because on some occasions, the PMO sent requests directly to the NOST+ parallel to sending requests to, for example, the DHA through the DoH. The NOST+ came to play a vital role in coordinating operations with regional police and health and emergency agencies and in mobilizing resources within the private sector.

### ***Differential deck-stacking***

By setting up a dedicated COVID-19 organization, the PMO overcame obstacles inherent in the permanent organization of central government. Standard operating procedures were suspended, and departmental boundaries were broken down and replaced by interdepartmental patterns of cooperation, while centralized control from the PMO curbed departmental autonomy.

This was no trivial issue. Early on, severe tensions between the DHA and the PMO erupted. The tensions involved the three critical tasks in handling a crisis of the scope of the COVID-19 outbreak: crisis understanding, decision-making, and communication to the public. As a result, the PMO moved in the SSI as the primary adviser on health matters. It did not stop there, however. The PMO also set up an alternative channel for the retrieval of information on the development of the pandemic in other countries and on the measures taken against COVID-19 there.

This made the MoF an important provider of crisis information. From March 5, 2020, several Danish embassies were required to give daily reports to the PMO about how their host countries were handling the COVID-19 crisis. These reports were systematized into different topics such as “closing of cities,” “closing of schools and other institutions,” “limits on gatherings,” “rationing,” “industrial support,” etc.

All of these steps were taken in a strictly demand-driven process where the PMO specified policy briefs and drafts to be prepared by other departments and sub-departmental authorities. To keep control over the process, the PMO developed a procedure where external communication from the authorities presumed prior clearance with the PMO. Initially, on February 28, 2020, the head of the DHA refused to comply with this procedure, referencing the need for quick and immediate communication with the public. Later the same day, he was rebuked by the permanent secretary of the DoH. He had been on the phone with the PMO for an hour and concluded his e-mail to the head of the DHA by saying, “We need to comply with this. We can get shot for this. Everything is everything. We need to give them [the PMO] everything” (Folketinget 2021a, p. 188).

On March 6, 2020, the prime minister announced, “The strategy chosen by the Danish authorities basically aims at delaying the spread of the virus as much as possible . . . But this is also a strategy designed to counter the negative consequences for society – that is, all of us. . . . to an increasing extent the entire economy.” This announcement foreshadowed the launching of economic aid packages. While the dedicated COVID-19 organization was conceived as the all-encompassing and centralized framework for preparing and coordinating a COVID-19 strategy, one conspicuous exemption was made here. The development of a series of economic aid packages was left to the DoB, singled out as the lead department in a partnership with the DoF and the DoE. The development of the economic aid packages started simultaneously with the preparation of measures to be taken against COVID-19. From the very outset, it was made clear that private businesses and the unions should be closely involved in drafting the economic aid packages. Therefore, the joint Coronavirus Task Force, chaired by the DoB and with members from the DoE and the DoF as well as representatives from the two main business associations and the unions, became the forum that within a few days drafted the aid packages.

The centralization of decision-making authority placed an enormous burden on the limited capacity of the PMO, but by setting up a separate organization for preparing and negotiating the aid packages, the government could expand its effective capacity, as implied by Hypothesis 3c.

The different handling of the economic risk assessment is noteworthy. The uncertainty as to its scope was similar to that involved in assessing the impact of COVID-19 on public health. But the course of events was very different. The assessment of the health risk relied on information and analysis provided by specialized health authorities claiming a commitment to evidence-based advice. The economic risk assessment followed another standard procedure, and the DoF was charged with the task. But the DoF had not begun to focus on the prospects of collateral damages before it was met with a demand for an analysis by the PMO. The PMO asked for the department’s assessment on February 27, 2020, the same day the decision was made to move from surveillance to containment and mitigation. This decision reflected the parallel preparation of health and economic measures.

However, the DoF did not complete a comprehensive analysis of the economic impact of the pandemic until April 5, 2020, weeks after the partial lockdown was enacted on March 11. In a memo presented to the Cabinet Coordination Committee, the DoF emphasized “the exceptional size of the uncertainty on the economic prospects” (Folketinget 2021a, p. 354).

Just like the health authorities, the government economists referred to prior experience with crises suddenly hitting the economy. Yet their reference points were limited to the credit crunch of 2008 and the effect of a volcanic eruption in Iceland in 2010 together with a literature review of the economic history of epidemic outbreaks. The department therefore also added that any estimate of consequences for government expenditure was uncertain. Note here that decisions on the launch of massive aid packages had already been made a month earlier.

From a BR perspective, the difference between the handling of public health risk and the parallel handling of collateral damage to the economy is striking. To cope with the health risks of the pandemic, there was an explicit demand for evidence-based inputs for decision-makers. By requesting such evidence, the PMO replaced default procedures with inputs from alternative sources when the advice received from the DHA did not cohere with its own evaluation of the situation.

When it came to drafting the economic aid packages, the request for immediate intervention implied a willingness to leap directly to the negotiation of an economic crisis strategy. There was neither a demand for prior analysis nor a perceived need to legitimize the crisis strategy with economic analysis. As noted, an analysis conducted by government economists emphasizing the uncertainties involved was not presented to the government until several weeks after the launch of the first aid packages. When the analytic basis of the packages was questioned in April 2020, the reaction was to set up a small group of university economists to evaluate the government’s crisis policy. Their report was not published until early May 2020 and concluded that given the uncertainties involved, the measures taken had been adequate (Andersen et al. 2020).

Early in the COVID-19 crisis, the Danish prime minister made clear that the government was pursuing a crisis strategy marked by “extreme precaution” and the principle that “one life lost was one too many.” In emphasizing the protection of public health as its chief concern, the government made social and economic stability a subsidiary strategy. This had several implications, all of them pointing to the relevance of BR theory and the need for explicitly linking it with the politics of governmental decision-making.

First, by setting priorities in this way, the government could expand decision-making capacity by separating the public health track from the parallel but subordinate economic policy track. Second, it was important to the government’s success that it was able to neutralize political opposition and mobilize political support for its crisis strategy. Here again it chose a differential strategy. The public health measures were prepared and launched without prior consultation with local and regional health authorities or representatives from the healthcare professions. Moreover, as noted above, its deck-stacking strategy made it push aside the DHA in favor of the SSI. The economic aid packages, by contrast, were prepared by inviting the most important economic interest organizations to negotiate their content. This latter strategy conforms to inherited neo-corporatist practices within Danish

democracy. The former strategy is contrary to the normal course of business, but in Kaufman's words, normal institutional and political bonds between administrative bureaus and their professional clienteles should never be taken for granted (Kaufman 1981, pp. 68–69). As the COVID-19 case shows, this goes both ways.

With Hypothesis 3 we moved beyond BR theory and its emphasis on organizational inertia born out of predefined roles and procedures and capacity constraints. The claim is that far from being entrapped by the bureaucracy, the political executive is able to install alternative sources of information and advice (H3a), to enact procedural and organizational changes prioritizing its preferred strategy for crisis management (H3b), and to expand capacity by separating policy problems into parallel tracks (H3c). But our case analysis also demonstrates how the politics of crisis management unleashes new sources of bounded rationality in the form of biased attention, reliance on rickety sources of information, and, as claimed by Hypothesis 2, possibly disproportionate updating of information.

## Conclusion and discussion

Central aspects of bureaucratic decision-making are rarely demonstrated empirically, given the secretiveness that typically shrouds activities in central government (Mintz et al. 2022, p. 150). As a consequence, as laid out at the beginning of this article, the recent wave of behavioral public administration research has had remarkably little to say about the behavior and decisions of top civil servants and political executives. Due to our unique access to the Danish central government's management of the COVID-19 pandemic, we have overcome this barrier. This access to otherwise confidential information has allowed us to delve into features of the interactions between individual actors, the organizations within which they sit, and the inter-organizational interactions in which they are engaged. By focusing on the early response of the Danish government to COVID-19, the case study also adds to a burgeoning literature on how national governments have strived to cope with COVID-19 and to our general understanding of the interaction between political executives and the bureaucracy in crisis management.

The analysis shows that bounded rationality theory has considerable strength when analyzing the early phase of events, when decision-makers gradually realized that they were confronted with a threat to public health that also threatened socio-economic stability. First, it lays out the enormous uncertainties involved when a crisis upsets the task environment within which decision-makers routinely operate. This sets their computational capacity under stress, inducing them to narrow their focus to what they define as the central concern of the crisis.

Second, it reveals how civil servants charged with advising the political executive are prone to follow standard operating procedures set up in reaction to past crises. Their reliance on these procedures is strengthened by their inclination to evade uncertainties by drawing analogies to previous epidemics, in which public health had been at risk but where the risk never materialized. Central decision-makers approach a new problem from where they sit, and none of them come close to making decisions characterized by a comprehensive investigation of all relevant

alternatives, all consequences of the chosen alternatives, or a continuous update in light of new information.

Similar constraints characterized the actions of the permanent secretary of the PMO, but her experiences and frames of reference were different from those of the leaders of the DHA. As argued by Bendor (2003), search for information will always be limited, but it need not be local, and given the permanent secretary's crisis understanding, she searched for information and policies different from those proposed by the DHA. Her solution was to intervene in the existing organization of health advice and unilaterally create a dedicated COVID-19 organization.

This COVID-19 organization mobilized considerable bureaucratic resources. It happened through the assignment of the DoJ as the lead department and through the addition of its considerable staff resources to those of primarily the DoH. It also happened through the creation of the NOST+ as a flexible and targeted operational coordination body.

Third, with the separation of the public health intervention from the economic aid packages, the PMO exploited the decomposability of the problems policymakers were facing. This added further to organizational capacity, as the drafting and negotiation of the crisis policy in this way for all practical purposes was conducted in separate tracks.

Fourth, with the PMO stepping in as the coordinator of last resort, an agile organization was created that facilitated fast decision-making, suspending departmental boundaries. In accordance with BR theory, crisis management crystallized how formal organization is a source of inertia when it comes to adapting to a new situation and how organizational change affected by executive fiat overcomes some of the inherent inertia.

The analysis of the Danish central administration's COVID-19 management also highlights some of the blind spots of the bounded rationality approach. The entire COVID-19 process was infused with politics, an aspect of decision-making where bounded rationality theory is remarkably quiet (Moe 2012; Bertelli and Riccucci 2020). Neither the differential demand for scientific evidence to legitimize different parts of the crisis strategy nor the strife over the distribution of power within the executive core between the departmental and the agency levels is sufficiently covered by BR analysis. This was also the case with the differential deck-stacking strategy applied in launching the COVID-19 measures and the economic aid packages, respectively. Bureaucracy played an indisputable role in both, but the scene was set in the shadow of the political executive hierarchy (Scharpf 1997).

The permanent secretary of the PMO took control and within a few days instigated a radical breach with standing procedures. This move not only paved the way for a swift response to situational contingencies, but it also had two important political implications. First, by suspending standing procedures, the permanent secretary effectively removed the DHA from the advisory process, replacing it with the SSI, the national agency for disease control. The SSI provided information that matched the gravity of the situation as perceived by the permanent secretary of the PMO and the prime minister. Second, this move constituted an act of institutional deck-stacking where the permanent secretary was able to shuffle the cards in a way that, at least for a while, endowed the government's strategy with rationalized legitimacy. This was apparent when the prime minister announced a partial



lockdown at a press conference on March 11 by conspicuously stating that “therefore, it is the recommendation from the authorities that for a while we lock down any discretionary activity” (Folketinget 2021a, p. 592). The internal documents clearly show that this was not the recommendation from a broad range of health and emergency authorities, but communication from the SSI gave the statement some legitimacy.

Another important observation is that the political need for rationalized legitimation appears to vary with the policy involved. The political legitimization of the aid packages was based on a negotiated consensus with politico-economic actors rather than any reference to prior analysis of the potential impact of COVID-19 on the economy.

There is another aspect of Denmark’s COVID-19 management that is not easily explained by the bounded rationality perspective. BR analysis is actor-centered and situational. Its focus is on actors’ perceptions of and reactions to changes in the task environment given their selective attention, informational constraints, and computational capacity. The Simonian focus is on the interaction between individual actors who have clearly specified organizational roles and the task environment. However, our analysis demonstrates that the formal organization is surprisingly moldable and that a reshaped organization allows the executive to escape the constraints set by a recalcitrant bureaucracy to a considerable extent. The standard interpretation is that bureaucracy constitutes a fixed constraint on the choices made by both civil servants and political executives. Yet the analysis demonstrates the strength of the governmental hierarchy, including when it comes to stacking the deck in a way that suits the incumbent government.

**Data availability statement.** This study does not employ statistical methods, and no replication materials are available.

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## Appendix

### Overview of empirical material

The analysis rests on the full body of documents that the independent inquiry received from ministerial departments and agencies involved in preparing and enacting the response to the COVID-19 crisis in early 2020. The documents were retrieved from electronic files in the digital case processing system used in central government. The retrieval of documents followed upon an official request sent to the ministerial departments and governmental agencies most involved in preparing and executing the steps taken by the government to handle the crisis in early 2020. As a follow-up on this request, the chair of and secretariat to the expert committee had meetings with civil servants from these departments and agencies in order to define precisely the types of documents from each body that were relevant to the inquiry.

Altogether, the documents received consisted of more than 2 million document pages. They consist of all sorts of documents normally produced as integral parts of bureaucratic case processing. They include letters and (mostly) e-mails to and from each department and agency, memos, and cover notes in both their draft and final forms. Ideally, they are also the minutes from meetings, be they physical or virtual. However, it is important to note that minutes were not taken during cabinet committee meetings and ad hoc meetings at the cabinet level. This is normal procedure, but as a consequence such minutes cannot be referenced along with the other inquiry documents. However, due to the lockdown from early March 2020, much of the communication was conducted via e-mail, transmitting documents, and exchanging information among civil servants working from home. As a result, the expert committee had at its disposal long and generally unbroken chains of e-mails and e-mail attachments. These make it possible to document the preparation and drafting of decisions in unprecedented detail. This body of documents is without exception the byproduct of the administrative and political preparation and enactment of decisions made at the level of central government. Here, it is important to add that in the absence of minutes from negotiations within the cabinet or among key ministers, neither the inquiry nor we are able to document the deliberations that took place here.

The departments and agencies involved in the inquiry were as follows:

- the Department of Business (DoB)
- the Department of Finance (DoF)
- the Department of Health (DoH) along with the Danish Health Authority (DHA), the Danish Medicines Agency, the Danish Patient Safety Authority, and Statens Serum Institut (SSI)
- the Department of Justice (DoJ) with the Danish Court Administration and the Danish National Police
- the Ministry of Foreign Affairs
- the Prime Minister's Office