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The COVID-19 pandemic as a game changer for public administration and leadership? The need for robust governance responses to turbulent problems

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ABSTRACT

The COVID-19 pandemic reveals that the public sector is not only facing simple and complex problem, but also turbulent problems characterized by the surprising emergence of inconsistent, unpredictable, and uncertain events. Turbulent problems call for robust governance solutions that are sufficiently adaptable, agile and pragmatic to upheld a particular goal or function in the face of continuous disruptions. The article defines the concepts of turbulence and robustness and provides examples of robust governance strategies that are illustrated by the current COVID-19 response. Finally, it draws the consequences of the new focus on robust governance for public administration and leadership.

Turbulent problems call for robust governance

The COVID-19 crisis has made clear that turbulent problems – characterized by surprising, inconsistent, unpredictable, and uncertain events – persistently disrupt our society and challenge the public sector. The public sector is being tested to its limits by the COVID-19 pandemic, which has swept away the standard repertoire of foresight, protection, and resilience strategies and brought society and the economy to a near halt. Yet this crisis is *in extremis* rather than *sui generis*. In the recent past, the public sector has encountered violent terror attacks, massive flooding and drought induced by global warming, a global financial crisis, anti-racism protests, large streams of refugees, and more. And in the future, turbulent events will return in a form we cannot yet imagine.

In the face of the social and economic disruption caused by turbulent problems, it is not enough for the public sector to activate a predefined emergency management plan, call in the bureaucratic troops to deal with the crisis, and let them do their professional work supervised by policy experts and a handful of executive political and administrative decisionmakers united in some form of adhocracy (Mintzberg and Alexandra 1985). Turbulent problems call for cross-boundary collaboration, public innovation, and, perhaps most importantly, the development of robust governance strategies that

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facilitate and support adaptive and flexible adjustment and entrepreneurial exploration and the exploitation of emerging options and opportunities (for an early anticipation of this argument, see Gray 1989).

This short piece claims that the COVID-19 crisis is a game changer for public administration and leadership, as it reveals the demand for robust governance strategies to deal with turbulent problems and demonstrates the need for public sector transformations to support the robust governance of turbulence. The essay proceeds as follows. First, we contextualize the focus on turbulent problems and define the concept of turbulence. We then argue that public administration research should pay more attention to the development of robust governance strategies, and we provide examples of such strategies. Finally, we draw out the consequences of the new focus on robust governance for public administration and leadership and conclude by setting out a new research agenda.

From complex problems to turbulence

Public bureaucracy is a child of the industrial age and historically organized like a mass production factory to routinely deliver standardized public services to citizens in fields such as health, education, social welfare, transport, and security. The combination of bureaucracy and professional rule secures the stable and timely delivery of good-quality services on a large scale. It also secures author-itative, rule-based regulation of society and the economy based on political decisions (Du Gay 2005).

Bureaucratic government has been praised for its ability to solve simple problems based on means‒end rationality, legal rules and the exploitation of scale economies. Since the 1970s, however, there has been mounting criticism of the inability of public bureaucracy to solve complex or so-called 'wicked problems' characterized by unclear problem definitions, complex causalities, conflicting goals and lack of stan-dard solutions (Rittel and Webber 1973; Head 2008; Peters 2017). In response, a growing number of governance scholars have argued that complex problems are best solved through multi-actor collaborations in networks and partnerships that help mobilize valuable resources, spur innovation and build common ownership over joint solutions (Gray 1989; Roberts 2000; Ansell and Gash 2008; Weber and Khademian 2008; Stephen 2010; Sørensen and Torfing 2011; Klijn and Koppenjan 2015; Torfing 2019; Wegrich 2019).

Today, in the face of COVID-19 and other disruptive problems such as climate chaos, globalized terrorism, the US opioid crisis and huge oil spills, it has becoming increasingly clear that the public sector is ill-equipped to address such issues. In addition to being complex, some problems are also characterized by being *turbulent* – that is, surprising, inconsistent, unpredictable, and uncertain. Such problems preclude the existence of ready-made solutions (Newland 2008; Asselt and Renn 2011; Ansell and Trondal 2018). When wicked problems were first 'discovered' and conceptualized in social science research, it was generally assumed that the context for solving these problems was relatively stable, or at least developed in predictable ways, thus allowing time for public authorities to mobilize and involve relevant and affected actors in governance processes. By contrast, the new research on *turbulence* asserts that globalization, new disruptive technologies, mediatized communication, processes of political disalignment, and

planetary limits to growth create an increasingly turbulent world in which events, demands, and support interact and change in highly variable, inconsistent, unexpected, and unpredictable ways (Boyne and Meier 2009; Ansell, Trondal, and Morten 2017; Ansell and Trondal 2018). Hence, the notion of turbulence aims to capture the increasingly volatile context for complex problem-solving, thus further shattering the old idea from the 1960s of bureaucracy as an organizational form for stability (see Tullock 1965; Downs 1967) that deploy a combination of means-end rationality and uncertainty reduction based on hierarchy, standard operational procedures and incremental decisionmaking to create order out of chaos (O'Toole and Meier 2003).

The turbulence concept originally developed in physics to describe chaotic fluid dynamics, such as stormy weather or complex river currents. In the social sciences, the idea began to appear in the mid-1960s, to describe the dynamic complexity of the conditions for governance at the organizational, national and international levels (Emery and Trist 1965; Easton 1965; Dwight 1971; Haas 1976; Radford 1978; Drucker 1993; Rosenau 1990, 1997). However, while this work has been fruitful, it has remained a distinctly marginal tradition of scholarship, mirroring the relative emphasis scholars have given to understanding routine over turbulent management. Although unfortunate and trying, turbulent events have been understood as limited in scope and scale and hence relegated to minor analytical importance. Yet the balance between the routine and the turbulent has shifted and we have been slow to catch up. The elaborate interdependence and speed of global digital society means that the task of managing surprising, inconsistent, unpredictable, and uncertain events is a far more central task for the public sector and far more is at stake in doing it well.

The global COVID-19 crisis offers a case in point (see Saxena 2020; Horton 2020; WHO 2020). We now know that national health experts denied the risk of a pandemic up to a few days before the virus spread across the globe. The virus was a mutated SARS virus that proved to be more contagious but less lethal than previous iterations. It was always expected to mutate again. It apparently affected those it infected very differently, but the pattern and reasons were unknown, and those who got seriously ill could not be offered effective treatment. The conventional government response to the pandemic was a near-total lockdown of society that disrupted the economy and forced poor people without welfare support to choose between hunger and infection. Other solutions, such as social distancing, were more experimental and there was little evidence that wearing a facemask would reduce the risk of infection. However, it was clear that public, private, and third-sector actors, including the citizens themselves, must mobilize in the effort to curb the health crisis and the resulting social and economic crisis. Finally, the massive public debt incurred during the COVID-19 crisis is likely to come at the cost of future health standards and lead to more deaths.

While there is abundant research on how public governance can cope with complex problems, there has been scant focus on the pressing issue of turbulence and the impact of turbulent problems on public governance. With regard to tackling turbulent problems, governance research may learn from the literature on crisis management (Bland 1995; Groh 2014; Ansell and Boin 2019) and emergency response (Drabek 1985; Perry and Lindell 2003; Manoj and Baker 2007; Aven and Renn 2010). However, these literatures tend to focus on specialized crisis response

agencies rather than public agencies more generally, and they are often more interested in questions about coordination and communication than in how to produce adequate governance solutions.

Robust governance strategies for tackling turbulent problems

As noted above, social science appreciation for turbulence is hardly new. What *is* new is that the traditional strategies for dealing with turbulence are no longer effective. Foresight is undermined by changing social, economic, and political dynamics and the constant emergence of new, disruptive technologies. Nor can we cannot protect ourselves against turbulent problems in a global world in which streams of people, information, and commodities cross borders at an increasing pace. Building resilience to enable communities to bounce back is also problematic, because a restoration of the old equilibrium may be neither feasible nor attractive. To put it bluntly, we cannot deal with turbulent problems simply by having dedicated, well-trained staff and warehouses full of emergency equipment ready when the next unknown, unpredictable, and uncertain problem hits the public sector. In turbulent situations, foresight, protection and resilience are not enough. Instead, the public sector must meet turbulence with robust strategies where creative and agile public organizations adapt to the emergence new disruptive problems by building networks and partnerships with the private sector and civil society.

Robust systems are able to realize their agenda, function, and value vis-à-vis particular challenges, stressors, and threats, some of which are surprising or unexpected (Anderies and Janssen 2013; Howlett, Capano, and Ramesh 2018). The disruptive challenges may either be external or internal to the system, and they prompt adaptive processes and/or proactive actions that deal with the challenges in ways that uphold a certain agenda, function, or value. The robustness concept has already been used for some time in biology (Kitano 2004), engineering (Carlson and Doyle 2002), and statistics (Huber 1981), and social scientists have become increasingly aware of how robustness may also be a key property of human behaviour and social systems (Anderies and Janssen 2013), economic systems (Leeson and Robert Subrick 2006), resilient water and disaster management (Simonovic and Arunkumar 2016) and policy design (Capano and Woo 2017).

As we develop the concept here, governance robustness is a property of political institutions, political and administrative processes, and policy instruments. As such, we define robust governance strategies as the ability of one or more decisionmakers to uphold or realize a public agenda, function, or value in the face of the challenge and stress from turbulent events and processes through the flexible adaptation, agile modification, and pragmatic redirection of governance solutions. This definition of robust governance strategies approaches the notion of dynamic resilience in which social and political actors abandon the idea of restoring a past equilibrium, instead engaging in an adaptive search for a new, emerging order (Simonovic and Arunkumar 2016; Ansell and Trondal 2018). Robust governance relies on adaptation and may change political and administrative institutions, regulatory processes, and policy instruments to meet new and emerging conditions. Hence, whereas a stable system can resist change, remain the same, or recover in the face of perturbations, a robust system aims to transform itself to achieve an agenda, function, or value.

Research addressing the problems pertaining to the robust governance of turbulence remains in its infancy, and the repertoire of governance strategies for ensuring

robustness requires further exploration. At this point, however, six types of strategies appear promising for more robust governance solutions. We shall look at each of these strategies in turn and provide brief illustration from the current attempts to deal with the COVID-19 crisis:

- *Scalability* aims to flexibly mobilize and de-mobilize resources across organizations, levels, and sectors to scale the provision of particular solutions to meet changing needs and demands (Ansell and Jacob 2018). During the current COVID-19 crisis, some countries created a public job bank where trainees and retired healthcare workers could sign up to assist public employees in carrying out healthcare work on a voluntary basis in the event of acute shortages.
- *Prototyping* aims to create new, adaptive solutions through iterative rounds of prototyping, testing, and revision based on prompt feedback (Brown and Wyatt 2010). For example, the novelty of the COVID-19 virus has forced governments to propose tentative solutions, test them in practice, evaluate the processes and results in the light of new developments, and then quickly adjust everything to achieve the overall objective of curbing infection rates, optimize testing and treatment, and minimize casualties.
- *Modularization* aims to create solutions that are divided into a series of modules that can be used flexibly in response to changes in the different aspects of the problem at hand (Ansell and Gash 2018). During the COVID-19 pandemic, for example, we have seen public strategies flexibly inventing, combining, and rearranging different modules pertaining to: a) testing, tracking, and quarantining; b) lockdown and social/physical distancing; c) compensatory economic packages; d) intensive care treatment; e) gradual (re-)opening of society, etc.
- *Bounded autonomy* aims to create a broad-based ownership and strategic commitment to an overall strategy by involving regional and local actors in the implementation of key tasks and regulations and encouraging them to adapt the overall governance strategy to the changing conditions on the ground (Ferraro, Etzioni, and Gehman 2015). To illustrate, there have been interesting cases of local municipalities, school principals, teachers, and parents collaborating to find safe and responsible ways of re-opening schools after the COVID-19 lockdown based on national health regulations that require interpretation and adjustment to fit local conditions.
- *Bricolage* aims to flexibly use and combine available ideas, tools, and resources to fashion a workable solution in the face of turbulence (Phillips and Tracey 2007; Chandra and Paras 2020). To illustrate, health authorities short on face masks and other protective measures rely on large companies to redirect their technological production capacities and exploit their trading connections and transportation systems in order to produce, purchase, and deliver what was needed. In the same vein, professional musicians, artists, and others who lost their livelihood when society shut down have used their skills and available digital tools to reach their audiences and partially make up for lost income.
- *Strategic polyvalence* aims to deliberately design solutions that can be taken in new directions and serve new purposes depending on situational analyses of demands, barriers, and emerging opportunities (Padgett and Ansell 1993). An

example of this is how the testing of citizens for virus infection was upheld during the pandemic but served different purposes, such as contact tracing, the screening of healthcare workers, estimating the number of infected persons, and enabling people to work safely together with colleagues and possibly contact elderly and weak family members without infecting them.

This list by no means exhausts the range of robust governance strategies that may be combined in different ways to achieve a public agenda, function, or value in the face of turbulent problems, events and developments, such as the COVID-19 crisis and its wide-ranging repercussions.

Implications for public administration

The COVID-19 pandemic reveals that the public sector is not only facing more or less complex problems that it must solve but also that it is confronting an increasingly turbulent societal environment in which public problems are themselves penetrated by turbulence. Enhancing the future capacity to respond to turbulent problems by means of designing, combining, and executing robust governance strategies requires administrative reform.

It is imperative that we make public institutions and programs more flexible and agile so that they can transform and adapt themselves in response to turbulence and scale their problem-solving efforts up and down (Overbeek, Klievink, and Janssen 2009; McCann and Selsky 2012). Flatter, modularized, and easily integrated organizations will tend to adapt to new and emerging demands than large, compartmentalized, and insulated hierarchies. In addition to new organizational designs, we need a new organizational vocabulary, mindset, and set of routines allowing managers and employees to shift from standardized service production to the creation of innovative, scalable solutions that provide robustness.

The zero-error culture that pervades public administration from top to bottom must be held at bay so that mistakes and errors resulting from experimentation with prototypes in turbulent environments are not seen as the end of the world and evidence of incompetence or lack of motivation, but instead as the first step towards learning and as the results of strategic miscalculations based on insufficient knowledge, inherent dilemmas, and unacknowledged conditions (Weinzimmer and Esken 2017; Osborne et al. 2020). The import of ideas associated with the new-design thinking may help transform the culture of public administration in ways that support robustness by encouraging teams to eempathize with users and target groups, explore and redefine problems, challenge assumptions, imagine and critically scrutinize new solutions, develop and test prototypes through experimentation and repeat the sequence over and over again to improve the solution in the face of persistent changes and disruptions (Bason 2017).

Control-fixated administrative steering systems must give way to trust-based systems that allow more room for decentralized flexibility, innovation, and adaptation, thereby preparing public organizations to deal with turbulence (Fraher and Grint 2018; Bentzen 2019). Trust makes communication across professional and organizational boundaries easier (Covey 2006) and thus facilitates rapid learning and collaborative efforts to adjust the course of action in response to new, unexpected developments.

Public organizations must build, cultivate, and strengthen their collaborative relations with relevant and affected actors (Ansell and Gash 2008; Parker et al. 2020). The development and application of robust governance strategies are conditioned by multi-actor collaboration that can help to flexibly mobilize relevant resources, enhance knowledge-sharing and coordination, stimulate innovation, and build common ownership to joint solutions and their subsequent adaptations (Ramus, Vaccaro, and Brusoni 2017). While collaboration must be purpose-built and established ad hoc, building relational trust and mutual understanding requires long-term investments. Hence, if public and private actors collaborate on everyday governance, it becomes considerably easier to collaborate during turbulent crises when stakes are high.

Finally, public administration must rethink its relationships with citizens. The citizens' trust in government, compliance with rules and regulations, and acceptance of new norms and values are critical to the creation and implementation of robust governance solutions, especially since government recommendations will often be subject to frequent reformulations that test the populations' understanding and patience. To build broad-based, popular support, governments must get in closer proximity to citizens by inviting them to participate in the co-creation of public governance as often as possible so that they better understand the complex challenges to public governance and see that government, for the most part, is populated with dedicated professionals who are doing their best to create public value for the citizens and society at large (Stoker 2006; Rosanvallon 2011).

Implications for public leadership

Public leaders must also reinvent themselves on several dimensions to enhance the capacity for designing robust solutions to turbulent problems. First of all, when dealing robustly with turbulence, public leaders can neither rely on transactional leadership (Jensen et al. 2019) aimed at ensuring compliance with predefined task descriptions nor on transformational leadership (Bass 1996) that seeks to formulate, communicate, and maintain a particular vision for how to solve public tasks and provide a detailed account of the mission. When confronting turbulent problems in a turbulent world, public leaders will know neither precisely what the problem is, what the goals are, what it takes to achieve them, nor how to describe the various tasks. Adaptation to emergent problems is likely to be facilitated where organizations have already built strong patterns of collective leadership (Ospina 2017). And in the midst of turbulence, public leaders must engage in a dialogue with employees and stakeholders to elicit their inputs and persuade them to test new strategies in practice and help accelerate the learning process; hence, leaders should act as stewards rather than principals (Schillemans 2013).

Second, public leaders at all levels will have to learn to operate in uncertain and unpredictable circumstances and attempt to solve problems under pressure and without sufficient knowledge about cause and effect. Leadership in turbulent times is not for control freaks or those with a strong preference for rational decision-making based on deep analyses and protracted studies (Fraher and Grint 2018). Leaders will have to trust their instincts, consult real-time data, seek expert advice, accept cognitive dissonance and imperfect solutions, build alliances, learn from experience, adapt to new circumstances, and look for next practice rather

than being seen to apply a non-existing best practice (Robert and Lajtha 2002; Moynihan 2008; Room 2011).

Third, public leaders must lead horizontal collaboration between professional groups, organizations, and sectors, allowing the problem or task to set the team rather than asking which part of the organization should run with it. Horizontal leadership (Pearce and Conger 2002) is challenging because you must lead people for whom you have no formal leadership responsibility. Horizontal leadership may be combined with distributional leadership (Bolden 2011) that encourages other actors to take local and situational responsibility for specific leadership tasks and gives more decision-making power to frontline personnel so that they can attend to the needs of the citizens based on professional judgement rather than bureaucratic rules.

Finally, public leaders must step up their communication skills. People look to public authorities for credible advice in turbulent times (Nolte, Bushnell, and Mews 2019). The communication of robust governance strategies requires clear communication about societal risks and what people can do to reduce them, careful explanation of changing public goals and efforts, openness about reasons for taking a particular action, the inherent dilemmas and the risk of failure, and celebration of the many actors who have helped to achieve successful outcomes (see Reynolds and Seeger 2005).

Further research addressing the robust governance of turbulence

The COVID-19 crisis has demonstrated the need to perceive of challenges to the public sector in a new way and is revealing the necessity, willingness, and capacity for changing the modus operandi of the public sector in the pursuit of robust solutions to turbulent problems. We hope that when looking back, we will see the current pandemic as an important game changer that stimulated research on turbulence and robustness within PA. We need a deeper understanding of the concepts of turbulence and robustness and how they challenge the traditional thinking about public governance. We must expand, describe, and assess a broad range of robustness strategies and we need to better understand the role of collaborative governance for crafting robust problem-solving strategies. Finally, we must think carefully about the types of institutional designs, platforms, and arenas that may help to spur robust governance in the face of turbulence and which forms of leadership are conducive to this. For all the personal loss, public strain, and economic disaster resulting from the COVID-19 crisis, let's hope it can inform the search for ways to ready public organizations for future turbulence and help redirect our research efforts by opening a new line of research on turbulent problems and robust solutions.

Disclosure statement

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Christopher Ansell is Professor of Political Science at the University of California, Berkeley. He received his B.A. in Environmental Science from the University of Virginia and his Ph.D. in Political Science from the University of Chicago. He is the author or editor of ten books, including

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