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Why we need bricoleurs to foster robust governance solutions in turbulent times

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Abstract

The public sector frequently confronts a heightened societal turbulence triggered by an increasing number of unpredictable and disruptive economic, political, and environmental crises. How can the public sector respond to this challenge? This article argues, first, that to continue to provide relevant solutions, public governance must be robust in the sense of adapting and innovating policies, programs, and services in ways that facilitate the achievement of basic public ambitions, functions, and values in the face of challenges, stressors, and threats. Second, to build robust governance, public managers must engage in bricolage and become bricoleurs in order to flexibly combine elements from competing and co-existent public governance paradigms. Doing so necessitates the construction of institutions conducive to bricolage, that is, institutions that are characterized by a high degree of flexibility that allows for experimentation; institutions that foster inclusive deliberation, knowledge sharing and joint learning; and institutions that balance centralization with distributed agency.

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1 | INTRODUCTION

We seem to be living in times of frequent, intensified and overlapping crises. The list of disruptive and potentially threatening crisis events seems never-ending, including financial crises leading to increasing poverty, the worldwide refugee crisis, security threats related to terrorism, and cyber-attacks, global warming generating climate chaos, and recently the COVID-19 pandemic. This article explores what it takes to create an agile public sector (see NAPA, 2020) capable of providing robust answers to the crisis-induced turbulence defined as situations where events, demands, and support interact and change in highly variable, inconsistent, unexpected, or unpredictable ways (Ansell & Trondal, 2018). We argue that to build robust governance responses, elected officials, public managers, and street-level bureaucrats must engage in bricolage and become bricoleurs in order to flexibly combine elements from competing and co-existent public governance paradigms.

Rapid social, economic, and technological change in tandem with global streams of money, ideas, and people seems to trigger a constant transformation of public governance and administration. According to Pollitt and Hupe (2011), “magic concepts” tend to play a pivotal role in the ongoing transformation of public organizations and the way that they are governing society and the economy. Politicians, public managers, consultants, mass media, and researchers regularly produce and circulate magic concepts such as “contracting,” “performance management,” and “public value creation” characterized by a high degree of abstraction, a positive normative charge and an apparent ability to solve existing problems. These buzzwords pave the way for the adoption of new fashionable ideas, templates, and practices that are often introduced more in the pursuit of public legitimacy than in the search for organizational efficiency (DiMaggio & Powell, 1983).

The changing fad and fashion in the public sector has been conceptualized in terms of public governance paradigms, defined as more or less coherent sets of ideas about how public organizations are organized, governed, and managed that are more or less explicitly derived from a few basic values and axioms (Torfing et al., 2020). The paradigm concept comes from Kuhn (1970), who claimed that scientific revolutions replacing one paradigm with another are extremely rare, leaving us with centuries of stable normal science. Hall (1993) has since used the notion of paradigms to characterize the relatively stable ideas and discourses informing public policy-making. In line with historical institutionalism, however, he believes that policy paradigms change at a much faster rate than do the Kuhnian scientific paradigms. Nevertheless, much like Kuhn, he views policy paradigms as being relatively stable and claims that new paradigms tend to replace old ones. More recently, it has been argued that new public governance paradigms emerge at shorter and shorter intervals and that the increasing numbers of paradigms are not only competing, but also co-existing in changing relations of dominance, depending on political whims and institutional conditions (Carstensen & Matthijs, 2018; Torfing et al., 2020).

This article aims to take the latter argument one step further, claiming that multiparadigmatic governance, that mixes and matches different governance practices, has become a basic condition in the contemporary public sector, and that it helps to provide the conditions for a robust public governance in turbulent times. Confronted with unpredictable, complex, changing, uncertain, and inconsistent problems and threats, elected officials, public managers, and other key governance actors may need to draw upon elements from different governance paradigms, thereby creating hybrid forms of governance based on pragmatic choices (Koppenjan et al., 2019; Koppenjan & Koliba, 2013). Turbulent problems are multifaceted and subject to constant change. Hence, the attempt to create robust solutions requires a flexible combination of different ideas, tools, and practices in order to cope with change. Our claim is that this insight tends to recast public managers as bricoleurs who use different available governance and policy tools pragmatically and in new and changing combinations to “build back better” when the public sector is hit by heightened turbulence triggered by crises or disruptive problems. Doing so requires the development of institutions that allow for the flexible deployment of tools across sectors and boundaries; deliberative institutions that include relevant actors in an open exploration of what the problem is and could become and which resources may be useful in addressing it; and institutions that allow for swift action, whether from the center or in the periphery.

The article proceeds as follows. First, after explaining the concept of turbulence, which we think captures the present predicament of modern society, we explore and define what it means to find robust governance solutions to turbulent problems, proceeding to then show how robust solutions may draw on elements from competing and co-existing governance paradigms. This discussion paves the way for our claim that public managers must become bricoleurs and engage in bricolage in order to flexibly combine elements from different governance paradigms to deal with problems and challenges in turbulent times. The final discussion aims to identify the kind of institutions that may support effective bricolage, and the conclusion summarizes the argument, highlights the limitations of bricolage as a mode of agency in dealing with turbulence, and calls for further research on turbulence, robustness, and bricolage.

2 | TURBULENCE AS A KEY GOVERNANCE CHALLENGE

Public bureaucracy grew at a rapid pace in the post-war era, gradually assuming responsibility for an abundance of relatively simple problems relating to social assistance, healthcare, education, transport, sanitation, and the provision of physical infrastructures. Most of these problems could be solved efficiently and effectively by public bureaucracies based on centralized, hierarchical, and rule-based efforts to exploit economies of scale in delivering standardized but incrementally improved public regulation and services (Pinchot & Pinchot, 1994). The bureaucratic governance of industrial societies was founded on liberal norms and values such as legality, transparency, and accountability, thus making it compatible with representative democracy (Du Gay, 2005; Rose, 1974).

In the 1970s, it was “discovered” that, in addition to relatively simple and manageable problems, the public sector also faced numerous hard-to-define and hard-to-solve so-called “wicked problems” in the field of planning, poverty alleviation and environmental regulation (Rittel & Webber, 1973). These problems prompted the involvement of relevant and affected actors in collaborative efforts to design and implement innovative solutions (Hartley, 2005; Head, 2008; Roberts, 2000). After a lengthy period of stable economic growth and bureaucratic governance in the post-war era, it was also recognized that social, economic, and political systems were bound to be hit by occasional crises that undermined the legitimacy of the state and called for systemic reforms (Habermas, 1975; Offe, 1984). Finally, modern societies were also seen to be vulnerable to natural or man-made disasters that called for resilience strategies aiming to maintain or restore the societal equilibrium (Holling, 1973; Meadows, 1972; Timmerman, 1981).

Today, the COVID-19 pandemic is serving as a magnifying glass, revealing how many societal problems are not only complex in the cognitive sense of being rooted in causal factors that interact in ways that are difficult to comprehend and model, but also unpredictable, unknown, uncertain, inconsistent, ambiguous, and changing. As such, new research is talking about turbulence as a new and urgent challenge for public governance (Ansell et al., 2017, 2020; Ansell & Trondal, 2018).

The turbulence concept was originally developed in physics to describe chaotic fluid dynamics, such as stormy weather or complex river currents. In the social sciences, references to turbulence first appeared in the mid-1960s in descriptions of the dynamic complexity of the conditions for governance at the organizational, national, and international levels (Drucker, 1993; Easton, 1965; Emery & Trist, 1965; Haas, 1976; Radford, 1978; Rosenau, 1997; Waldo, 1971). This work remained a distinctly marginal tradition of scholarship, however, mirroring the relative emphasis social science scholars have given to understanding routine administration over the management of turbulence. Turbulent events and problems have been understood as rare, limited in scope and scale, and, hence, relegated to minor analytical importance. Nonetheless, as turbulent problems become more frequent, widespread and intense, the balance between governance driven by routine problems and governance responding to turbulence has shifted.

Turbulence is defined as “a situation where events, demands, and support interact and change in highly variable, inconsistent, unexpected, or unpredictable ways” (Ansell & Trondal, 2018, pp. 2–3). A basic level of turbulence is created by ongoing globalization processes, new disruptive technologies, high-speed communication, processes of cultural and political disalignment, and planetary limits to growth. Surprising and disruptive crisis events, such as a

financial meltdown, sudden influxes of large numbers of refugees, massive flooding, or the outbreak of a lethal virus, may heighten the level of turbulence, thus putting pressure on the public governance of society and the economy. As we seem to be hit by a growing number of crises, heightened turbulence appear to become the new normal, thus begging the question of how public governance can maintain basic ambitions, functions, and values in increasingly volatile and unpredictable contexts.

3 | THE NEED FOR ROBUST GOVERNANCE SOLUTIONS

Heightened turbulence triggered by emerging problems and disruptive crises poses a massive challenge to public governance, as it tends to render a number of traditional crisis management strategies obsolete. The uncertainty and unpredictability inherent to turbulence prevents foresight, although not preparation and contingency planning as such. Protection in the sense of a ready-made, standard response that can effectively eliminate or mitigate the problem is precluded by the newness, variability and inconsistency of the problem. Incrementalism seeking to change existing solutions marginally is undermined by the disruptive force of turbulence. Finally, resilience strategies aiming to restore the old equilibrium by enhancing the societal, social and individual capacity for “bouncing back” are insufficient, since a return to the old equilibrium may be neither feasible nor attractive in the light of the turbulent events.

We claim that turbulent problems call for governance strategies aiming to produce robust solutions and enhance societal robustness. Robust systems can achieve their basic ambition, function, or value in turbulent problem environments where they face particular challenges, stressors, and threats, some of which are surprising or unexpected (Anderies & Janssen, 2013; Howlett et al., 2018). Robust answers to turbulence aim to spur adaptive processes that transform existing solutions in the light of changing problems and contexts while proactively searching for innovative solutions to maintain a core goal or purpose in changing and challenging circumstances. Hence, robustness is a kind of a “dynamic conservatism” aimed at changing to preserve (Farjoun et al., 2015), although even the core purpose of a political and administrative organization or social community is likely to change in the course of pragmatic adaptation and innovation.

The robustness concept has already been used for some time in biology (Kitano, 2004), engineering (Carlson & Doyle, 2002), statistics (Hampel, 1971), and philosophy (Weisberg, 2006). In the social sciences, researchers have become increasingly aware of how robustness may also be a key property of decision-making (Cogley et al., 2008), social systems (Anderies & Janssen, 2013), economic systems (Leeson & Subrick, 2006), water and disaster management (Simonovic & Arunkumar, 2016), and policy design (Capano & Woo, 2018). As we develop the concept here, governance robustness is a property of public institutions, political and administrative processes, and policy instruments. As such, we define robust governance strategies as the ability of public and private decision-makers to uphold a public ambition, function or value in the face of the stress and disruption stemming from turbulent events and problems through the flexible adaptation, creative design, and pragmatic redirection of governance solutions (Ansell et al., 2020). This definition of robust governance strategies brings us close to the notion of “dynamic resilience” in which social and political actors abandon the idea of restoring a past equilibrium in favor of an adaptive and creative search for a new, emerging order (Ansell & Trondal, 2018; Simonovic & Arunkumar, 2016). Robust governance relies on adaptation and creative problem-solving to effectively and legitimately maintain a particular core purpose. Hence, whereas a stable political or socioeconomic system may either resist change or swiftly recover in the face of perturbations, a robust governance system aims to transform itself to achieve its purpose.

Decision-makers aiming to provide a robust response to turbulence may choose between and combine a number of different robustness strategies:

- *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 & Torfing, 2018).

- *Prototyping* aims to evaluate new, creative, and adaptive solutions through iterative rounds of prototyping, testing, and revision based on prompt feedback and fast learning (Brown & Wyatt, 2010).
- *Modularization* aims to create solutions that are divided into a series of separate modules that can be used and combined flexibly in response to changes in the different aspects of the problem at hand or the emergence of new, related problems (Ansell & Gash, 2018).
- *Bounded autonomy* aims to instill 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 needs and conditions on the ground (Ferraro et al., 2015).
- *Recombinant innovation* aims to take something from somewhere else and to use it in a different way to fulfill a particular purpose (Hargadon, 2003).
- *Strategic polyvalence* aims to deliberately use tools and design solutions that can be taken in new directions and serve new purposes, depending on situational analyses of demands, barriers, and emerging opportunities (Padgett & Ansell, 1993).

While this list of robust governance strategies is by no means complete and exhaustive, it at least provides a concrete understanding of what decision-makers engaged in public governance might do to find robust solutions to turbulent problems (Ansell et al., 2020).

4 | SUPPORTING ROBUSTNESS BY COMBINING PUBLIC GOVERNANCE PARADIGMS

If turbulence is the problem and robustness the answer, we must know how public organizations can deliver robust solutions that are provisional, learning-based, and adaptable, and how decision-makers can explore and exploit old and new ideas and opportunities to redirect solutions and use creative combinations of various tools to deal with uncertain and unpredictable problems. Since robustness is all about pragmatic adaptability and proactive innovation, it is important to avoid dogmatic adherence to a particular public governance creed, since that would limit the ability to flexibly choose, combine, and adapt governance strategies, tools, and actions. In contrast, the organizational agility needed to produce robust governance solutions in the face of crisis-induced turbulence is supported and nurtured by heterogeneous, polyphonic, compound organizations (Greenwood & Hinings, 1996; Hazen, 1993). As such, we hypothesize that the presence of competing and co-existing governance paradigms provides an important condition for fostering robust solutions in the face of turbulence.

The post-war era saw the rise of public bureaucracy based on hierarchy, centralized control, organizational specialization, rule-based decision-making, and the meritocratic recruitment of civil servants (Du Gay, 2005). The primary policy tool was laws and regulations, often packed into large policy programs specifying the provision of public services and regulatory designs. In some countries, bureaucracy was combined with professional rule, giving professionally trained frontline personnel extended autonomy in carrying out their tasks in exchange for their commitment to use their competences to deliver high-quality welfare services (Noordegraaf, 2016).

This combination of bureaucracy and professional rule was criticized in the 1970s for leading to rigid and inefficient solutions, prioritizing rule-compliance over results, paternalistic treatment of citizens, and the opportunistic behavior of self-serving public agents. Bureaucracy and public professionals were no longer seen as the solution, but the problem. In response to this criticism, New Public Management (NPM) emerged as an alternative governance paradigm recommending the replacement of control-fixated hierarchical governance with competitive markets based on privatization, outsourcing, and free service choices for users. To cope with the competition for contracts and customers, public managers should engage in performance management seeking to measure, document, and assess outputs and use sticks, carrots, and sermons to motivate public employees to deliver results (Hood, 1991). This organizational recipe was complemented by the recommendation of a set of policy tools aiming to incentivize the

actions of citizens and stakeholders, sometimes using competition, contracts, and conditional rewards and punishment. NPM swept the world, leaving only minor pockets of resistance, such as the Scandinavian countries, which prioritized public management over marketization (Pollitt & Bouckaert, 2011).

In some places, NPM enhanced the efficiency of public service production, strengthened the focus on needs and results, augmented public sector transparency, and recruited and trained competent professional and entrepreneurial managers capable of transforming public organizations and making them more flexible (Torfing et al., 2020). Recently, however, there has been mounting criticism of how the marketization of the public sector enhanced fragmentation, leading to a race to the bottom, and how performance management demotivated public employees and crowded out their intrinsic task motivation and public service motivation. The most devastating criticism came from Hood and Dixon (2015), who demonstrated how the cost of public service production and the number of service complaints had increased after 30 years of NPM in Britain.

The responses to the growing criticism have aimed to take the public sector in different directions. Public Value Management criticizes the underlying assumptions of NPM, whereby the public sector is viewed as a parasite squandering value produced in the private sector. Instead, it insists that the public sector produces its own distinct public value that is promoted by entrepreneurial public managers and authorized by elected politicians and relevant stakeholders (Moore, 1995) and subsequently boosted by other actors, including user groups, further down the value chain (Benington & Moore, 2011). The favorite policy tool remains bureaucratic regulation and service production, but public value management recommends that frontline organizations use public value scorecards to measure outcomes (Meynhardt et al., 2014) and opens up for the co-production of services with users (Brandson et al., 2018) and co-creation of public solutions in networks and partnerships (Stoker, 2006).

Digital Era Governance views new digital technologies as a disruptive force enabling the public sector to overcome the NPM-created fragmentation by providing holistic and integrated service production based on real-time data (Dunleavy et al., 2006). It also pays attention to the increasing provision of online services, the use of big data and the outsourcing of ICT systems to private tech companies (Margetts & Dunleavy, 2013). In short, smart digital solutions are the preferred policy tool.

Finally, New Public Governance argues that networks, partnerships and other collaborative arrangements can help to overcome fragmentation and to mobilize societal resources (Osborne, 2006, 2010), and that trust-based management may help to better motivate public employees to use their professional competences to spur service innovation (Torfing & Triantafyllou, 2013). New policy tools such as co-creation and the use of voluntary standards, norms and agreements are recommended (see Salamon, 2002).

While the different public governance paradigms all have competing visions and views on how to organize, govern, and lead the public sector and they are all developed in opposition to past governance paradigms, it is striking how the new paradigms do not seem to replace the old ones, which continue to play a pivotal role, even as new paradigms are layered atop of them (Torfing et al., 2020). Hence, public governance paradigms are both competing and co-existing, and there are many examples of hybridization, where elements from two or more paradigms are articulated and merged with each other (Koppenjan et al., 2019). The EU Horizon program that provides funding for scientific research on grand solutions provides a good example of interparadigmatic hybridity. Here applicants must comply with strict bureaucratic rules to obtain funding while forming collaborative networks of researchers and practitioners, which compete with each other to score points on pre-determined performance criteria. Another example is the promotion of circular economy that frequently combines national regulation, the formation of collaborative networks and partnerships and competitive commercialization of new sustainable solutions (Niesten et al., 2017). The flexible use and combination of dissimilar elements from the various public governance paradigms is a key condition for organizational agility and helps to provide the robust responses to crisis-induced turbulence. At the same time, however, the demand for constructive hybridization and pragmatic eclecticism challenges elected politicians, public managers, and field workers, who are steeped in bureaucratic administration, but must engage in bricolage and become bricoleurs who actively search for ways of creatively combining ideas and tools proffered by different public governance paradigms.

5 | THE ROLE OF BRICOLAGE AND BRICOLEURS IN ROBUST GOVERNANCE

This section explores the usefulness of the bricolage concept for analyzing how public managers may pragmatically combine ideas and institutions from different governance paradigms in order to enhance the agility and adaptive capacity of the public sector in turbulent times. It compares the bricoleur with other types of agency and seeks to identify how institutions can be designed in ways that support public managers in becoming bricoleurs and engage in bricolage to create robust solutions to societal turbulence.

5.1 | Conceptualizing bricolage

Building on the seminal work of Levi-Strauss (1966), bricolage is commonly conceived as “making do by applying combinations of the resources at hand to new problems and opportunities” (Baker & Nelson, 2005, p. 331). Applied as an analogy for how humans acquire knowledge and relate to the world (Duymedjian & Rüling, 2010), Levi-Strauss (1966) contrasted bricolage to the rational and scientific “engineering.” While the engineer decides on which instruments to use based on calculations of how to address the problem at hand most effectively, the bricoleur instead “works with his hands and uses devious means” (Levi-Strauss, 1966, pp. 16–17). This involves applying existing means—leftovers from earlier events—to new, unexpected problems. The bricoleur faces a situation similar to the one faced by public managers operating under turbulent circumstances. With the support of robust governance institutions, the public sector bricoleur articulates dissimilar elements belonging to different governance paradigms in ways that transform their identity, thereby creating new, emerging functionalities that are revealed and tested in practice. Recent history offers many examples of this. In the COVID-19 pandemic, health authorities redirected existing technological production capacities to gain access to remedies that particularly in the first part of the crisis were in short supply (Ansell et al., 2020). But also outside crises, in more everyday, mundane practices, we find examples of bricolage. As shown by Freeman (2007), to craft effective public health programs, officials must successfully act as knowledge brokers that combine different kinds of knowing in their learning processes, including scientific and data driven and “lay views.”

To understand bricolage as practice and mind-set, it is useful to present it in terms of: (1) the contingent repertoire of the disparate ideas, tools and actions available to the bricoleur; (2) the situated dialogue taking place when defining and addressing problems; and (3) the outcomes produced through that very process (Duymedjian & Rüling, 2010). First, to devise solutions, the bricoleur turns to a heterogeneous *repertoire* of existing resources assembled over time and perhaps used in previous situations and projects, then discarded or forgotten, and ultimately rediscovered and reinvented. Being the “contingent result of all the occasions there have been to renew or enrich the stock,” the bricoleur has no other option than making do with “whatever is at hand” (Levi-Strauss, 1966, p. 17). The repertoire and the bricolage that they are employed to create consist of different materials and social and cognitive resources (Bechky & Okhuysen, 2011; Campbell, 2004; Perkmann & Spicer, 2014). These resources are leftovers and debris from past events. They are collected independently of any particular project or utilization, “following the principle that it might come in handy at some point” (Levi-Strauss, 1966, p. 18), and their meaning is shaped by how they have previously been put to use. Later, they are put to use in a new and wholly different context, suggesting that despite its extensiveness and usefulness, the bricoleur's repertoire also exhibits significant limitations as problem-solving resources. Once used, the elements are returned to the bricoleur's stock and maintained there for future use. In the toolbox of the bricoleur, we thus find ideational and institutional elements from different governance paradigms, but also remnants of how they have been combined and applied in earlier and potentially significantly different contexts.

The particular history of the tools naturally matters for the quality of the solutions that may be devised from them. Take as an example crisis management during the financial crisis of 2008–2009. Faced with a crisis with an

unprecedented level of complexity, policy makers were under extreme time pressure to craft solutions with the potential to strain the public purse for decades to come. Under such circumstances, policymakers looked to what ideas and institutions for managing banking crises that were available in their national context. In the case of Denmark, this meant that the redeployment of problem definitions about a lack of professionalism in the smaller Danish banks as the root of the crisis and principles about the obligation of the Danish banking sector to collectively foot the bill for bailing out individual institutions—both developed in wake of the Nordic banking crisis of the 1990s—formed the backbone of Danish crisis management. The successful redeployment of existing institutions for crisis management in a new context—notably privately funded but publically regulated Private Contingency Association (Indskydergarantifonden) that already in 1994 had been enabled to offer guarantees to help smooth transition of ownership in cases of bank collapse—resulted in the Danish state *making money on the crisis* (Carstensen, 2017). Compare this to Ireland, where the refashioning of existing practices of dealing with institutions on an individual basis had as a consequence that the sector as a whole did not take responsibility for crisis management (Campbell & Hall, 2017). We thus see that both sets of actors worked as bricoleurs in managing the financial crisis, the quality of institutions and ideas available to them mattered hugely for the output of these processes.

Second, to make elements from competing governance paradigms work together in new and changing contexts, requires an exploration of what meaning emerges from the combination of dissimilar elements. That is, once the bricoleur comes across a problem, *dialogue* is initiated about which instruments to use and how. Levi-Strauss (1966) paints the picture of a bricoleur excited by his project:

“His first practical step is retrospective. He has to turn back to an already existent set made up of tools and materials, to consider or reconsider what it contains, and, finally and above all, to engage in a sort of dialogue with it and, before choosing between them, to index the possible answers which the whole set can offer to his problem.” (Levi-Strauss, 1966, p. 18).

Although the elements available to the bricoleur are overdetermined with meaning from their many past uses, their specific meaning and role in this new context remains to be discovered. Given the origins of the elements in different paradigms, the dialogue must take place across epistemological domains and involve the participants in “‘piecing together’ what they know from different sources in different ways” (Freeman, 2007, p. 485). In contrast to the rational engineering actor who identifies tools based on their universal relevance and known impact vis-à-vis a particular problem or challenge, the meaning of the bricoleur's instruments emerges from the effort to make them work in the specific context (Ansell & Boin, 2019, p. 1085). Instruments are chosen and arranged according to their capacity to be associated within a functionally performing structure; and following extensive experimentation and testing, the process ends once the solution satisfactorily “holds” in the sense of being promising and feasible (Duymedjian & Rüling, 2010, pp. 138–140).

Despite its creative and pragmatic nature and focus on emerging solutions, the bricolage process is not without constraints. These include the physical limitations of the objects put to use; the particular history of how each element has been applied beforehand; the conservative inclination of bricoleurs to continually (re)order rather than transgress their universe and to reuse existing resources rather than finding new ones; the institutional capacity afforded to some actors at the expense of others to impose certain definitions of problems and agendas; and how such power disparities play into upholding the dominance of certain interpretive practices (Duymedjian & Rüling, 2010; Hannah, 2020; Levi-Strauss, 1966; Perkmann & Spicer, 2014; Wilder & Howlett, 2014). Returning to the above mentioned relative success of Danish policymakers' management of the financial crisis, the bricolage devised was certainly also saturated with power. The narrative that dominated was thus one of how a lack of professionalism on part of small banks led to the Danish financial sector being particularly hard hit, pointing to the long-term solution of supporting the creation of bigger banks. This interpretation conspicuously overlooked how the financial institution that posed that biggest threat to financial stability was in fact Denmark's largest bank, Danske Bank (Carstensen, 2013).

Third, the *outcome* of bricolage is typically unforeseen and unexpected, but also limited to gradual change that may involve twists and turns but few real breakthroughs. While the result of bricolage is the assembly of different objects (Duymedjian & Rüling, 2010), it can still produce “brilliant unforeseen results on the intellectual plane” (Levi-Strauss, 1966, p. 17). Because the bricoleur does not enjoy the benefit of deciding on the tools and options inherent to the project, instead having to make do with an inherited repertoire of left-over tools, it is impossible to know what the chosen combination of available resources will come to mean, and so “the project will therefore inevitably be at a remove from the initial aim” (Levi-Strauss, 1966, p. 21). The necessity of agile action breeds change, and the openness of the bricoleur to trying out new constellations of existing elements increases the chances of turbulence driving robust change (Duymedjian & Rüling, 2010, p. 134).

5.2 | Bricolage and robust governance

The capacity of the bricoleur to continually (re-)construct solutions from the same materials comes to good use in efforts to govern in times of turbulence. There are at least three reasons for this. First, in contrast to the engineer's *a priori* prioritization of what matters and what does not according to the structure of a single paradigm, everything can potentially be important in the bricoleur's ordering of the world; a specific tool may be discarded at one point in time but later be celebrated as the key problem-solving device (Levi-Strauss, 1966, p. 9; Duymedjian & Rüling, 2010, p. 139). In an uncertain situation with an imperative to act promptly, this *openness* is vital, not least because it acknowledges (rather than reduces) the complexity actors face (Ansell & Boin, 2019; Van de Walle, 2014). The openness relates to questions such as: What is the problem? Who are the relevant actors to include in the process? And how should the process be organized and solutions designed and communicated to the public? The answers to these and other relevant questions will almost inevitably change over time, and that requires significant flexibility on the part of the actors involved, which is not normally granted to actors who operate mono-paradigmatically (Carstensen, 2011).

Second, maintaining agility in crisis situations requires social and political agents who are able to act swiftly and intuitively as opposed to becoming bogged down by the lack of available information or time-consuming attempts at constructing a rational plan for moving ahead. Rather than being an optimizer, the bricoleur's ability to work as a *satisficer*, combined with a curiosity toward which results could arise, drives an experimentation process that seeks to develop adequate solutions based on past experience and experiential learning (if not objective data). The pragmatism of the bricoleur engaged in robust governance also displays itself in a willingness to push through decisions that may not be preferred by all actors but are promising and carry sufficient coalitional support to be implementable. In other words, bricolage in no way precludes power; to the contrary, building coalitions and strategically presenting the bricolage in the most persuasive terms available (potentially even making the process look more rational than it was, see Boxenbaum & Rouleau, 2011) is often key to maintaining the agility of governance institutions and producing robust solutions to turbulent problems (Carstensen, 2011; Hannah, 2020; Koppenjan & de Jong, 2018).

Third, using the materials at hand not only helps to deal with resource and time constraints, it may also help building *legitimacy* in public institutions and around public solutions (Cleaver, 2002). Despite the openness to change that helps to maintain some basic ambitions, functionalities and values, the bricoleur above all focuses on re-establishing order in the face of disruption and potential chaos. Doing so with the aim of giving all available ideas and tools from different paradigms a “fair hearing” can be helpful for recognizing, balancing, and potentially protecting the different interests and concerns at stake when responding to turbulence. Similarly, it enables the bricoleur to potentially bridge different kinds of legitimacy originating in both expertise, interest representation and adherence to democratic governance principles. Moreover, in efforts to strengthen common perceptions of legitimacy, bricolage is also helpful for communicating to the public, since it helps to frame creative problem-solving in ways that resonate with the concerns of “an aroused public” while building on “existing conceptions, explanations, reputations, and symbols” (Ansell & Boin, 2019, p. 1099; see also Campbell, 2004).

In sum, the openness to contingency and complexity, the search for adequate solutions based on multiple governance paradigms, and the attempt to carefully consider and balance different concerns supports the bricoleur's ability to produce robust governance based on an agile and pragmatic articulation of tentative, adaptive, and potentially novel solutions.

5.3 | The bricoleur as postmodern hero?

Postmodernity is often associated with the idea that “anything goes,” but it involves the recognition of the limits of modernity and the contingency of its values, principles, and organizational forms (Rorty, 1989), thus opening up for a pragmatic combination of different ideas, ploys, and tools. In this light, we may see the bricoleur as a postmodern hero using different resources to solve turbulent problems without supporting the endeavor with a totalizing story about why this is the only or best solution.

More than that, we argue that the bricoleur is a more useful and promising persona than other available images of public managers. Hence, whereas the “creative destructor,” praised by Schumpeter (1942), creates entirely new solutions and destroys the old ones, the bricoleur knows to store past solutions as part of the future repertoire, because we cannot be sure about the resources we will need when the next turbulent problem emerges. Whereas “design thinkers” are questioning assumptions, leveraging empathy, stewarding divergence, navigating the unknown, making the future concrete, and insisting on public value (Bason, 2017), bricoleurs are less interested in lengthy processes aiming to construct innovative designs for the future and more focused on using available materials in new and creative ways to swiftly solve a pressing problem. Whereas the “boundary spanner,” promoted by collaborative governance researchers, aims to connect people across organizational boundaries by bringing them together, translating idioms and discourses from one context to another, and coordinating activities (Edelenbos & Van Meerkerk, 2018), the bricoleur is focusing less on connecting people and more on articulating different ideas, tools, and practices that are available to different groups of actors who are engaged in creative problem-solving. Finally, whereas the “metagovernor” invented by governance network theorists is using institutional design and leadership to frame, mobilize, support and facilitate networked collaboration between interdependent actors, bricoleurs are not spending much time and energy on arranging processes of joint problem-solving; instead, they are directly involved in the process of putting dissimilar elements together to form feasible solutions.

While the other available personas may also be useful, we believe the bricoleur to be a crucial figure who may play a pivotal role in solving turbulent problems by creatively combining elements from a shared toolbox, thus producing interparadigmatic governance hybrids that expand the number of tools available for the next round of problem-solving.

6 | INSTITUTIONS FOR EFFECTIVE BRICOLAGE

The literature has employed the bricolage concept to understand change processes as both individual and collective practices. The literature on the bricoleur as policy entrepreneur (Campbell, 2004; Carstensen, 2011; Kingdon, 1984) is helpful for understanding how agents are able to break policy deadlocks or escape path dependencies. Focusing on bricoleurs as individual entrepreneurs, however, runs the risk of overemphasizing the importance of their specific traits or human qualities rather than recognizing bricolage as a pattern of action that all social and political actors may participate in under specific circumstances (Capano & Galanti, 2021). It also runs the risk of underestimating the broader relevance of bricolage in public governance processes. Analyzing the conditions for robust governance requires appreciation of the potential for collective bricolage. For collective bricolage to take place, two or more actors must reach agreement on the repertoire of available resources (potentially sharing resources to which they have unique access), engage in a joint dialogue about their potential meaning and potential use, and jointly develop

and test a prototypical solution. Hence, collective bricolage shares much in common with collaborative governance and co-creation, as the actors undergo a collaborative learning process in which they seek to establish common ground for joint problem-solving and engage in mutual learning processes (Duymedjian & Rüling, 2010, p. 143).

Following Duymedjian and Rüling (2010), we further differentiate between familiar vs. convention-based bricolage. The former takes place in groups where members belong to a close-knit community or have undergone similar kinds of socialization (e.g., in the workplace or a relatively small organization). This kind of bricolage has a prominent position in existing scholarship, with pivotal studies conducted on innovation and entrepreneurship within relatively small groups (see Garud & Karnøe, 2003; 2005; Bechky & Okhuysen, 2011). In contrast, convention-based bricolage relies on the existence of particular institutions that can facilitate negotiation and sort out the conflicts and disagreements between the social and political actors involved in bricolage. Such institutions are much more likely to emerge in environments where the actors are distributed across organizations, levels, and sectors and the development of closeness and trust is difficult. In most contexts of robust governance, we are likely to find instances of both familiar and convention-based bricolage. However, as noted by Duymedjian and Rüling (2010, p. 142), the more impersonal, distributed and distant the interaction and the bigger the stakes, the more important the conventions supporting collective bricolage become. The implication is that if bricolage is to be a key driver of robust governance, convention-based bricolage must be the predominant form.

This argument raises serious governance challenges, which essentially relate to how actors who do not share long-term socialization or physical proximity can obtain the necessary level of agreement on what constitutes the relevant stock of tools and how to engage in a collective dialogue regarding the combined use of different tools. As argued by Bechky and Okhuysen (2011) in relation to familiar collective bricolage, key processes for nurturing the improvisation so central to bricolage include establishing a common understanding of which problems and tasks are to be solved, in what order and how. This enables actors to react quickly and creatively when faced with unforeseen developments. In the convention-based bricolage context, the effectiveness of bricolage hinges on the quality of institutions available for actors engaged in the robust governance of turbulence.

With the institutions in place to help build a common understanding of the problem and task at hand and the available tools for their solution, bricolage holds significant potential to foster robust governance under conditions of turbulence. We therefore ask: What are the main kinds of institutions necessary to obtain collaboration, stimulate mutual learning, and foster a collective capacity to engage in creative problem-solving? Here, we want to highlight three kinds of institutional features that are particularly important for collective bricolage. First, bricolage requires institutions flexible enough to allow for experimentation within and across units, levels, sectors, and governance paradigms. The effective deployment of bricolage may thus lie in tension with dominant governance models (e.g., bureaucracy, NPM) that favor centralized control over specialized decentral agencies aiming to produce their respective solutions that are carefully monitored through elaborate performance management systems. Neither centralized control nor specialized agencies are helpful for providing necessary openness in terms of policy goals and the set of viable solutions (Duymedjian & Rüling, 2010, p. 146). In contrast, a platform organization functioning as a meta-organizational facilitator of collaboration is better placed to support the bricoleur “through its flexibility, movement, and transformation obtained from intersecting, penetrating, and collating different organizational arrangements, such as the network, the matrix, and even the hierarchy” (Ciborra, 1996, p. 104; see also Ansell & Miura, 2020). Consider as an example the shift of the Federal Emergency Management Agency (FEMA) from a top-down, bureaucracy to an involving and learning organization. Key to the success of this transformation was to create room for experimenting with new formats and combinations of governance solutions that draw on ideas, tools and practices from many different organizational actors that may subscribe to different constellations of public governance regimes. The transformation for example involved the creation of online communities that managed to engage thousands of volunteers (Porcelli, 2013), as well as the establishing of federal interagency partnerships (Ward et al., 2018).

Second, to establish a common dialogue, maintain a common storyline as they build from different paradigms, and to strengthen the legitimacy of the process, bricoleurs need strong institutions for inclusive deliberation,

knowledge sharing, and joint learning. Effective bricolage necessitates the creation of a common stock of tools and instruments. As noted by Duymedjian and Rüling (2010, p. 136), what is needed is to transform “all kinds of signs into a common format, allowing for infinite collage.” In times of turbulence and crisis, this requires effective deliberation. The initial reaction of providing a provisional account of reality must be followed by high-intensity communication and inclusive deliberation about every step in the process from risk assessment, development of creative solutions, testing of prototypes, subsequent adaptations, and flexible readjustment of the course of action (Ansell & Boin, 2019, p. 1093). To do so requires well-developed institutions, the use of which impacts the quality of solutions actors are able to come up with. Consider once again the cases of Denmark and Ireland. Not only did the Danish authorities enjoy the advantage of having at hand institutions and ideas crafted in an earlier banking crisis, they also employed a set of well-developed institutions for cooperation between the state and the banking sector. Having a banking sector organized through the interest organization Finance Denmark (*Finans Danmark*), for example, meant that the state and the banks could easily access data about assets and liabilities in the banks to establish how to best set up the state guarantee. Further institutions were developed through the crisis, most importantly the asset management company Financial Stability (*Fiansiel Stabilitet*)—tasked with winding down bankrupt financial institutions—that was publically regulated but had strong representation from the banking sector in its board (Carstensen, 2013). In contrast, Irish policymakers—although too forced to work as bricoleurs in a moment of intense crisis—had no institutions for dialogue and negotiation, and instead ended up dealing with individual banks on a more ad hoc basis, in the process struggling with getting the necessary overview of a rapidly deteriorating banking sector (Campbell & Hall, 2017).

Our emphasis on deliberation should not be taken to indicate that we envisage unanimous consent to the telos and success criteria of governance institutions aiming to enhance robustness. Indeed, disagreement and conflict can help clarify ideas and arguments and spur innovation, as long as they do not get out of hand and become destructive (Culpepper, 2008; Mansbridge et al., 2010; Torfing, 2016; Young, 2002). All that is necessary for bricolage processes to flourish despite disagreement and conflict is to find common ground for problem-solving (Gray, 1989); or that which Dryzek and Niemeyer (2010, chapter 5) refer to as meta-consensus. This includes agreement on the legitimacy of a value despite disagreement concerning its relative weight in a choice situation; agreement on the credibility of disputed beliefs; and agreement regarding the nature of disputed choices across alternatives. Deliberative institutions based on meta-consensus thus provide vital scaffolding for managing normative, epistemic and preference conflicts that are bound to emerge in bricolage processes (cf. Sørensen & Torfing, 2009).

Finally, the institutional setup must afford agents with the capacity for effective action. To harness the benefits of solutions emerging dynamically through learning-based deliberation and adaptation, agents must be able to act swiftly and effectively. However, we are certainly not calling here for a centralization of power in the institutions performing the bricolage. The task is more complex than that. On one hand, upstream actors must have the authority and legitimacy to realize the solutions that they produce through bricolage by widely communicating the content of the solutions and expecting other actors to do their best to implement them. On the other hand, downstream actors must be granted enough autonomy to try out what makes sense in their specific context and to produce situated knowledge about what works in practice (Ansell et al., 2020, p. 5). The latter aims to create a broad-based ownership and strategic commitment to the overall approach by involving downstream actors, allowing them the freedom to make adjustments to changing conditions. Key to the success of the local-level adaptive learning is that insights from local experiments are communicated to the central level, which may use the new knowledge to expand the repertoire of tools and solutions.

7 | CONCLUSION AND THE NEED FOR FURTHER RESEARCH

The main contribution of this article is an insistence on the pivotal role that bricolage and bricoleurs can play with respect to flexibly combining ideas, tools, and practices from competing and co-existing governance paradigms in

proactive, flexible efforts to provide robust solutions to turbulent problems. Since the bricolage concept emerged more than 50 years ago, ideas have been discussed and elaborated, thus allowing us to show how the bricolage and bricoleur concepts complement the recent debates about turbulence and robustness that are triggered by the current COVID-19 pandemic.

We have shown how the public sector is not only facing simple and complex problems, but also waves of turbulence that beg the question of how to respond robustly to unpredictable, uncertain, and changing problems. We have also argued that what appears to be a messy co-existence of competing public governance paradigms, each with their own organizational recipe and policy tools, provides favorable conditions for enhancing the agility of the public sector in the face of turbulent problems and the need for robust solutions combining learning-based adaptations with innovative twists and turns. This insight leaves us with the problem of explaining who is designing robust solutions by means of articulating a diverse set of ideas, tools, and practices. The answer revives and repurposes the notion of bricolage and the role of bricoleurs in the public governance context. Our discussion highlights key dimensions of the activities of bricoleurs and compares the bricoleur with other fashionable personas before finally identifying the institutional conditions for effective collective bricolage.

Unfortunately, despite the promises to build institutions that may support bricolage in governance processes, bricolage offers no panacea for policy-makers or public managers. Here, we want to highlight what we consider three potential pitfalls of using bricolage as an approach to robust governance. First, taking the repertoire of available tools and resources as the starting point for the search for a response to pressing problems and demands may prevent critical and transformative learning aimed at problematizing tacit assumptions and venturing into the land of the unknown to find yet undiscovered solutions (Smith, 2013). In other words, there seems to be a conservative bias in bricolage, since innovation is merely found when novel combinations generate new, emerging functionalities—rather than aimed for using a proactive combination of divergent and convergent thought.

Second and following from this, one may be skeptical of the capacity of bricolage to foster the kind of systemic innovations that are needed to address the grand challenges of our time (see Bugge & Bloch, 2016). This limitation owes to both the conservative bias of the bricoleur and the inherent focus on acting swiftly and taking pragmatic action. Is the serendipity of the bricoleur a match for the enormity of the large and disruptive challenges facing modern societies? Or do we need a more comprehensive and ambitious change strategy aiming to address the underlying mechanisms causing the problem in new and innovative ways? Although the jury is still out when it comes to the public sector, new private sector research shows that under high technological turbulence, bricolage has an enhanced positive association with product innovation. Hence, bricolage and innovation may not be antithetical.

Finally, it is reasonable to question the legitimacy of bricolage. The focus of the bricoleur(s) is to make things “work” to re-establish order, although not necessarily the old one. The legitimacy of the bricoleur thus hinges very much on the outcome—whether the solutions “hold up”—with much less emphasis on who gets to provide input or whether policy processes follow laws and regulations (see Schmidt, 2013). Taken together, these potential pitfalls invite policy-makers to not turn their commitment to a bricolage approach into a neglect of the problems that it may generate. Indeed, bricolage may enhance the agility of the public sector and allow it to exploit all of the available means to fight a crisis, but it may have to be balanced with other change strategies.

The research on turbulence, robustness, organizational agility, and the role of bricoleurs remains in its infancy and must be further refined and tested through empirical case studies that can explore the relevance of the turbulence and robustness concepts, analyze the prospects for combining ideas, tools, and practices from different public governance paradigms to provide agile responses to disruptive events, and shed light on the bricolage practices and who is acting as a bricoleur. Institutional theory researchers may also further investigate the institutional conditions for bricolage and the role of institutional design in enhancing the capacity for constructing robust solutions to turbulent problems. Finally, future research may test the effectiveness of robust solutions designed through bricolage and critically compare the results with governance responses, giving more weight to comprehensive search strategies and attempts at producing innovation.

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