Locating the modernist state: on whether or not modernist principles govern contemporary policy practice

Dorren, L.

Routledge
Taylor & Francis Group

Administrative Theory & Praxis

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/madt20

Locating the modernist state. On whether or not modernist principles govern contemporary policy practice

Lars Dorren

To cite this article: Lars Dorren (2023): Locating the modernist state. On whether or not modernist principles govern contemporary policy practice, Administrative Theory & Praxis, DOI: 10.1080/10841806.2023.2176076

To link to this article: https://doi.org/10.1080/10841806.2023.2176076

Published online: 17 Feb 2023.

ADMINISTRATIVE THEORY & PRAXIS
https://doi.org/10.1080/10841806.2023.2176076

Locating the modernist state. On whether or not modernist principles govern contemporary policy practice

Lars Dorren

Institute of Public Administration, Leiden University, Leiden, The Netherlands

ABSTRACT

Modernism is the belief in a world that can be understood in objective terms and controlled as such. Even though it is commonly understood to be a naïve worldview, public administration theorists believe it to still aptly describe the modus operandi of modern states—albeit in more subtle forms. This raises the question whether that makes civil servants naïve modernists, or whether theories of the modernist state are oversimplifying government practice. This study explores this question by means of interviews with civil servants involved in decision making processes on infrastructure investments. It finds that modernist norms do not describe an actual practice, but reflect the language used to legitimize a practice in which policy makers are driven by a desire to act rather than objective knowledge about the world. Consequently, the study argues that the question we should be asking ourselves is not why states still operate according to modernist principles, but why civil servants legitimize their practice with a set of norms that does not seem to describe it.

KEYWORDS

Infrastructure policy; knowledge use; modernism; technocracy

> It is not in the thinking of new things to do
> It is in the counting of things that you have already done
> And it is not in the things you staple together
> It is in your desire to staple
>
> David Shrigley – The Jist

In critical policy studies, the state is often depicted as an archetypical rationalist or modernist institution (Bauman, 2000; Clarence, 2002; Frissen, 1999; Law, 1994; Scott, 1998; Triantafillou, 2015a; Trommel, 2009; Van den Brink, 2007, 2015; van Putten, 2015). The ontology of such institutions is built on two core assumptions. First, the world around us is objectively and completely knowable through scientific research. Through research, the modernist state will produce an objectively best policy solution. Second, we can, on the basis of our objective knowledge, meaningfully control and manipulate this world, having full control over the effect of our actions. Embedded in the accusation that states are modernist is the idea that the administrative division of such a state perceives itself as acting neutrally based on objective knowledge.

CONTACT Lars Dorren l.dorren@fgga.leidenuniv.nl Institute of Public Administration, Leiden University, Leiden, The Netherlands.

When considering the amount of insights into the fallibility of human reasoning and human action at both the individual and supra-individual level, it is difficult to imagine that modernist beliefs are upheld to a great extent in practice. The idea of acting neutrally based on objective knowledge is not only problematized in critical policy studies. Genre-defining studies in a variety of fields such as policy analysis, psychology and organization sciences paint a picture of government practice shaped by "bounded rationality," "satisficing," short-term goal chasing and pragmatism (Feitsma, 2018; Flyvbjerg, Bruzelius, & Rothengatter, 2003; March & Olsen, 1975; Simon, 1976; Tversky & Kahneman, 1974; Walgrave & Dejaeghere, 2017). The fact that these insights are not exactly obscure do not only make the principles of modernism appear naïve, they also make it difficult to imagine that anyone who is part of what has been called a "swamp" (Lindblom, 1979) or "garbage can" (Cohen, March & Olsen, 1972) that is the policy process actually upholds these beliefs.[1]

Studies that describe the state as a modernist institution only partially account for this supposed naivety. These studies have a tendency to talk about states as coherent wholes, talking about "the state" that acts based on modernist principles. Implied in the idea of the state acting on modernist principles is the assumption that principles that govern the practice of a state at the most abstract level also apply to practices at the individual level. However, institutions—such as the state—consist of a set of routines, rules, beliefs and practices which are ultimately enacted by individuals (Thornton & Ocasio, 2008). Institutions are known to be inherently hypocritical, meaning that a policy document might portray a state as acting one way, while its policy practice might look entirely different (Brunsson, 1986). Do the individuals operating in this context actually believe in the principles of modernism? And if so, do they also put them into practice? If we want to judge up to what extent modern states can indeed be understood as "modernist," we would need to see up to what extent modernist ideals are reflected in the practice of individuals operating within a state.

Refining our understanding of modernism by seeing if it exists as a set of principles and as a practice is first of all relevant for those studying modernism. If we know where exactly modernism resides, it will enable more empirically grounded and better contextualized analyses of it. As such, it also will show those trying to come up with alternatives to modernist modes of governing what exactly needs changing. Lastly, insight into the context in which modernism resides might offer an explanation for its repeated resurgence, despite continuous criticisms.

This paper presents the results of an attempt to locate the modernist state in the practice of policy making to answer a basic research question: are policy makers modernists? To do so, the paper first briefly outlines how existing theory argues that the contents of the two core beliefs that characterize modernist states—the idea that the world is objectively knowable and the idea that this world can be controlled—shape the practice of governments today. Then, it presents an analysis of reflective interviews with 17 policy makers who are all involved in decision making processes on infrastructure investments at the national level in the Netherlands. This analysis suggests that whilst in policy documents, archetypical modernism is present, civil servants do not so much occupy themselves with questions of objective knowledge or control. Instead, they are first and foremost driven by a "energy" or a desire to act—e.g. build infrastructure. This desire is

there regardless of their belief in their ability to objectively know and control. This raises the question whether modernism is an existing practice, or merely a language used to communicate a much more erratic practice to others. Should we understand modernism as a system of belief or primarily a narrative to legitimize acting?

Modernism in contemporary government practice

The term "modernism" has been used by theorists such as Bauman (2000) and Habermas (1987) when referring to a world view that has, according to these theorists, been on the rise since the late nineteenth century. They describe how society expects the modernist state to provide regularity and control through policies based on objective scientific knowledge (Bauman, 2000). In their synopsis of public administration theories of modernism, Callen and Austin (2016) define four key components of the modernist world view. First, a linear, teleological line of progress, meaning that the history of the human race shows a clear line of progress that we will be able to continue. We have it better than our forebearers, and our children will have it even better, seems to be the belief. Second, modernism beliefs in ontological stability, meaning that there are certain unshakeable laws explaining the world around us which exist beyond human interpretation. Third, epistemological certainty, meaning that through thorough study, we can uncover these laws. Fourth, there is the promise of enlightened human agency, which entails that people are able to meaningfully manipulate their environment. That is, supported by ontological and epistemological certainty, human beings are able to undertake ambitious projects that shape their future, and have control over and insight in the outcomes of these projects while doing so.

For policy processes, this means two things. First, it suggests a heavy reliance on scientific studies, which are seen as able to guide the state to a solution that is objectively right or best and fundamentally a-political (Miller & Fox, 2007; Nutley et al., 2007, p. 128; Weiss, 1979). Second, it implies that the state has meaningful control over the impact of their actions. Modernism is generally associated with large-scale policy projects, signaling states' confidence in their ability to steer society in the direction of progress. Famous examples of projects expressing modernist beliefs are the Brazilian capital Brasilia, which was constructed from scratch in the 1960s in the middle of the Brazilian jungle (Wright & Turkienicz, 1988), or the Sovjet Union's and People's Republic of China's so-called "planned economies," in which the state would dictate what the country would produce over a set period time, independent of free market forces of supply and demand (Scott, 1998). Described as such, the modern state sounds rather Wilsonian. It fits a conception of the state in which civil servants neutrally and rationally execute political decisions—a state in which they are led by what works best rather than what is politically desirable or acceptable (Wilson, 1968).

Opposite modernism, we find alternatives such as postmodernism and poststructuralism. The modernist perspective on the world has been problematized by a wide range of theorists in fields ranging from philosophy of science (Feyerabend, 2010; Foucault, 2011; Putnam, 2002) to political science and public administration (Parsons, 2002; Stone, 2012; Trommel, 2009; van Putten, 2015; Farmer, 1995; Miller & Fox, 2007) and from science and technology studies (Gieryn, 1995; Latour & Woolgar, 1986) to

complexity sciences (Rescher, 1998). Critics of modernism argue that contrary to what the archetypical modernist would suggest, research findings are not objective in the sense that they speak for themselves, nor do they provide us with meaningful control over our environment. The world is constructed through interpretation and social action, is the famous constructivist claim (Berger & Luckmann, 1966; Giddens, 1984), meaning that there is no such thing as an objectively observable world existing independent of peoples' interpretation of it. Even if we are not consciously aware of it, our interpretations of the world around us are governed by moral codes (Foucault, 2011). What modernists present as objective, does in fact depend on all sorts of value decisions (Putnam, 2002; Stone, 2012). For example, collecting data requires defining categories first. When do we speak of a "serious" traffic issue? What makes an income "low"? Then, understanding findings also requires making value decisions: what constitutes a high number of people with a low income? In other words: what comes out of a study, depends on who is making it. What study these study outcomes mean, differs per reader. That, according to critics of modernism, makes the modernist process a power game in which "objective" means that what fits dominant norms. Because modernism assumes that the objective does not need to be interpreted or debated, this makes decisions based on "objective" facts particularly hard to challenge (Stevens, 2007; Triantafillou, 2015a).

In addition, the modernist idea that scientific studies provide one with control over one's surroundings has been problematized in reference to reductionist nature of the modernist ontology (Rescher, 1998). Modernisms reductionism assumes that the complexity of the world can be reduced to certain core laws, which can then be used to predict the impact of policy choices. A study—which can only try to model reality and leaves things out by definition—will never fully encompass the real world and therefore will never provide guarantees about future developments. That notion is problematized by empirical and theoretical research. The world is too complex to reduce to a handful of variables, critics say (Rescher, 1998; Callen & Austin, 2016). Empirical studies show how government projects often take longer than expected, cost more than predicted or have unintended side-effects exactly because of unforeseen occurrences which were not taken into account by the studies preparing for these projects (Bovens & 't Hart, 1996; Hall, 1980; Leijten, 2017; Marks & Gerrits, 2017; Scott, 1998; Taleb, 2010).

In a policy context, adopting a postmodern attitude could mean that policy makers display a certain modisty about the state's abilities. Some authors call on administrators and their educators to display a more rebellious attitude toward the modernist norms governing modern states (Miller & Fox, 2007; Blessett et al., 2016) or an openness to the existence of different interpretations of dominant norms (Kensen, 2000), others call for a government that is more "modest" and reflexive of what it can an cannot do (van Putten, 2015) or a government that operates based on the principles of pragmatism rather than modernism (McSwite, 1997).

Even though the idea of a truly neutral administration has generally been accepted to be an oversimplification of state practice, those who characterize states as modernist institutions argue that modern trends in governing can be seen as a proliferation of modernist principles. Archetypical modernist principles supposedly remain the "background assumption" behind all that the state understakes (Miller & Fox, 2007,

p. 3). The continuos confrontation between the modernist state and its non-modern surroundings, it is argued, have lead to an increased reliance on the state to provide certainty (Bauman, 2000, pp. 55–70), causing states to adopt increasingly sophisticated procedures to attempt to force a situation in which the state is in control regardless (Bauman, 2000; Coser, 1974; Frissen, 1999; Scott, 1998; Trommel, 2009). As a result, modernist ideals would still govern government practice, albeit under a different guise. The modernist optimism apparent in mega projects such as the construction of a new capital city in the middle of the Brazilian rain forest (Wright & Turkienicz, 1988) can still be recognized in the neoliberal "what works" mentality that drives indicator based governance (Miller & Fox, 2007). Pluralist-seeming ideas such as network governance[2] can be interpreted as a reinvention of modernist principles where the state now attempts to find its truths through combining knowledge from different parties and exercise control through steering networks rather than governing top-down (Bevir, 2010; Bell & Hindmoor, 2009). Critics of the use of psychological insights in policy making describe this movement as a new and refined surge in technocractic policy making[3]—an attempt to refine modernist ways of control rather than move away from them (Feitsma, 2018).

Empirical work on the role of knowledge in decision making nuances this picture by showing that policy practice is different. For example, Boswell (2018) suggests that policy makers know the limitations of working evidence-based but embrace it because it is an effective ground for (short-term) compromise. Similarly, Stevens (2007, 2011) describes how people in government rely on knowledge not so much to find out truths about the world but to "reduce the role of uncertainty as a barrier to action" (Stevens, 2011, p. 234). Knowledge that gets used by policy makers is not neccesarily the knowledge that is the "truest," but the knowledge that best fits the context in which it is meant to be used and the agenda of key decision makers (Stevens, 2007). Work by Mouter (2017) suggests that politicians do not only use knowledge to inform themselves, but also as political ammunition and to make their decisions *appear* more rational. This leaves us with the following puzzle. If knowledge use is indeed this ecclectic, and civil servants and politicians seem to *consciously* engage in this use, what exactly are theories of modernism describing?

The idea that modernism can be recognized as a worldview in the discourses surrounding government practice is abundantly illustrated by the sources cited in the sections above. However, what else is it? The academic articles cited in this paper base themselves on a wide variety of sources, from interviews and policy documents to philosophical or sociological theories. Are the principles of modernism, as a symbolic interactionist might want to know, also a set of principles with which civil servants make sense of the world around them? (Blumer, 1969). And are they, as an ethnomethodologist might wonder, also a practice? (Garfinkel , 2002). Do civil servants act modernist, so to say?

Modernism in Dutch infrastructure decision making

To understand what exactly theories of modernism are describing, this paper analyses Dutch infrastructure policy processes and the civil servants involved in them. In several ways, these processes can be understood as a likely site to find archetypical modernists.

First, Dutch infrastructure policy processes are highly structured, suggesting a belief in the ability to exercise control through thorough planning. Projects are planned in the context of the MIRT or "Meerjarenprogramma Infrastructuur, Ruimte en Transport" (Multiannual Program for Infrastructure, Environment and Transport). The current MIRT contains all planned infrastructure investments by the national government until 2030. Procedural guidelines are documented in what is called the "rules of play" of the MIRT (Ministerie van Infrastructuur en Milieu, 2016).[4] These divide the infrastructure decision making process into four steps in which government works from a wide array of possible solutions to a traffic problem to a single preferred solution. For each of the four steps, a highly detailed "information profile" has been designed, containing all information that should be available before the government can proceed to the next step. These include different types of studies, but the rules of play also state when and where public consultation should take place, which organizations should be involved at what points, and at what stage of the process specific regulations come into play.

Second, Dutch infrastructure policy processes are full of all kinds of studies and analyses, echoing the idea that research can point you to an optimal solution. The contents of the MIRT are closely linked to a market- and capacity analysis (nationale markt- en capaciteitsanalyse or NMCA) produced by the Dutch Ministry of Infrastructure (Ministerie van Infrastructuur en Milieu, 2017). Based on different economic scenarios, this analysis predicts the ability of Dutch infrastructure networks to cope with mobility demands in 2030 and 2040. The analysis shows where the most severe congestion is to be expected, which forms the basis of the investment priorities of government (Dorren et al., 2018, pp. 47–49). The analyses used range from cost-benefit analyses and environmental impact assessments to compare different project alternatives to public-private comparators to predict which will be the most beneficial contract forms for the construction stage of the project.

When solely regarding procedures as written down in the rules of play, Dutch infrastructure policy processes do indeed seem to be set up in accordance with modernist beliefs. However, despite the procedures' apparent modernist layout, the rules of play of the MIRT also stipulate that studies are there to inform decisions, not dictate them. The minister of Infrastructure ultimately decides and have been known to not always follow study outcomes (Mouter, 2017). Even in these documents, then, modernism does not appear to be a set of rules that govern government decision making in an absolutist sense. The next section of this paper will outline how policy makers were interviewed in order to better grasp what role modernist norms play in practice.

Methods

This study maps how modernist ideals reflected in the practice of civil servants based on interviews with civil servants at different levels of government. This section describes how data was collected and subsequently analyzed.

Data collection

The type of source likely impacts the picture of government a researcher forms. Documents and oral accounts have different functions. What seems to be the case in

documents might look totally different in practice. The ideals that govern people's practice, might be different from the way that practice actually operates. To complement the documents-based description of policy processes included in Section "Modernism in Dutch infrastructure decision making" of this article, a total of 17 people were interviewed in 13 interviews. As the MIRT is presented as a cooperation between the national government and regional and local government, respondents from all these levels were included. In terms of regional governments, I selected respondents from contexts that differed in terms of the amount of investments they received. This means that I conducted interviews in provinces that received a large amount of investments during the past years and provinces that received little in comparison.

Respondents were located at five different types of organizations. Respondents at the regional or local level worked as policy makers for the administration of the provincial or municipal governments. At the national level, respondents worked at either the ministry of Infrastructure and Water Management, at one of the minister's executive agencies, or at the national court of audit.

Respondents had two main functions. The first group of respondents played an advisory role in the process of selecting and executing infrastructure investments. These respondents either advised on content or on processes. Content advisors conducted analyses or provided "expert judgements" on which options should be considered. Process advisors produced studies on how to optimize decision making processes or analysis processes. The second role respondents had was the role of strategist. Strategists were engaged in the process of negotiations between the national government and regional governments about funding for projects. Table 1 contains an overview of the distribution of respondents by organization type and function type.

The respondents were interviewed by means of a topic list. The interviews were divided into two parts. In the first half of the interview, respondents were asked to describe the way in which the processes of the MIRT lead to a list of concrete investments, and their role in that process. In the second half of the interview, this information was used to zoom in on the ideas of knowability and control. Respondents were invited to describe the process in general terms, so that I could get an idea of their ideal type process. They were then asked to specify their descriptions with concrete examples of the

Table 1. Distribution of respondents by function type and organization type.

Level	Organization type	Function	Number of respondents
National	Ministry	Advisory (content)	1
		Advisory (process)	0
		Strategist	4
	Executive agency	Advisory (content)	2
		Advisory (process)	2
		Strategist	0
	Court of audit	Advisory (content)	0
		Advisory (process)	2
		Strategist	0
Regional/local	Province	Advisory (content)	2
		Advisory (process)	0
		Strategist	3
	Municipality	Advisory (content)	1
		Advisory (process)	0
		Strategist	1

way they worked, as to allow me to reflect on the way in which modernist ideals where also put into practice.

Analysis

All interviews were transcribed verbatim. Coding was inspired by Boyatzis' (1998) principles for thematic analysis. Interviews were loaded into NVivo 12 and coded in two rounds. In the first round, "knowability" and "control" were used as codes to identify pieces of conversation that dealt with one or the other. As the theoretical framework of this study has demonstrated, knowability and control are two concepts which are very much linked together. As such, focus was put on the primary message of each statement. For example:

> Maybe this new way of working will mean the end of cost-benefit analyses.

was coded under "knowability" because it primarily focusses on the way in which a certain new way of working will impact an advisor's ability to conduct proper analyses. It impacts, in other words, their ability to know and predict even though this also implies that this knowable new reality will also mean that it is less controllable. A statement such as:

> Well, this captures the development of the area over the past decades, and now you have to decide with the best knowledge and the best intentions.

was coded under "control." In this statement, the focus is not so much on the studies themselves, but on what grounds for action they offer. This respondent suggests that you have to do the best you can, rather than to act based on known certainties.

In a second round of coding, all statements coded under "knowability" and "control" were reviewed and coded again under summarizing sentences that echoed the sentiment of a statement. In a last round of analysis, summarizing statements were grouped together based on the degree with which they were in agreement with modernism. Results were displayed in overview tables, describing the number of interviews in which each category of statements occurred. Of course, an analysis does not stop at the numbers, it exists in reading the stories behind the numbers. This is what has led to the set of conclusions that is presented in the next section of this article.

Results

The interviewed policy makers paint a complex picture of the role of modernist principles in government practice. Individual respondents made statements both signaling belief in and problematizing modernism's two core ideas. This section shows how knowability and control are seen as something that can be strived for, but that the ambition to act, or "energy" is what actually drives policy decisions.

Knowability

The idea of knowability in the modernist sense supposes that there is a world out there that is objectively knowable and can be discovered through rigorous study. The

Table 2. Number of interviews each sentiment related to "knowability" appeared in.

Sentiment	In number of interviews (out of 13)
The world is knowable	11
The world is knowable, under certain conditions	13
Studies do not provide objective, universal truths	5
People are not so much concerned with obtaining objective, universal truths about the world	11

workings of this world can be reduced to certain core principles, which can subsequently be employed in analyses to predict the impact of policy decisions.

The summarizing statements that have been collected in relation to the idea of knowability as described here have been divided in four groups of sentiments: "the world is knowable," "the world is knowable, under certain conditions," "studies do not provide objective, universal truths" and "people are not so much concerned with obtaining objective, universal truths about the world." The first three sentiments represent different levels of believe in the idea of an objectively knowable world, in order of decreasing certainty. The fourth sentiment covers statements that suggest that policy makers' prime concern is not to produce policies based on objective knowledge about the world. Going over each of the sets of statements, it appears that policy makers do certainly rehearse the modernist idea of a world which can be known objectively, yet simultaneously nuance this very idea by listing factors which complicate or problematize it. How exactly they connect these conflicting ideas, becomes apparent when going over each of the four categories of statements in detail (Table 2).

The statements connected to the sentiment that the world is knowable express an explicit belief in the objective knowability of the world. In half of the interviews, respondents explicitly state that they believe that the use of models and technical instruments make policy processes more objective. This very much corresponds with the modernist attitude to knowledge. A similarly sized group explicitly distinguishes between "objective" or "rational" and "emotional" or "political" grounds for making a certain decision, echoing the modernist sentiment that there is such a thing as value-free knowledge. When looking at what "knowing" means in the context of these statements, it seems that respondents mostly refer to facts and figures as produced by analyses. They talk of cost-calculations and estimating effects by means of economic models or "studying" in general. Take, for example, the following statement:

> On the basis of facts and figures, you can often prove that "you may want to [stop adding extra lanes to a highway], but you will never get all those people to use the railway or the bus" […] So on the basis of facts and figures, you can, well, maybe mediate political preferences a bit.

Their statements suggest a scientific outlook on policy processes: you study and then judge which projects are best on the basis of that.

Most of the statements expressing belief in objective knowledge were made in the beginning of each interview. Something interesting happens when respondents are questioned further on what exactly the functions of (model-based) studies are. Even though respondents seldomly stated that studying is fruitless, they did recognize that there are

limits to what one can find out through studies. Often, their remarks concerned practical limitations such as time and resources or the quality of the models used:

> It is very difficult to, in [the NMCA[5]], provide a place for cross-border traffic.[6] You can hardly make that work. So, what happens is: you have all these roads within the borders of the Netherlands and lot of them turn red[7]. Whilst all the roads to the border, […] they don't turn red! But they can be pretty busy too.

At the same time, respondents declared that the model discussed here is rather central to decision making. Policy makers from regions that, according to the NMCA, have a low number of bottlenecks, indicated that it was very difficult for them to get the attention of the national government. Policy makers from regions with many bottlenecks said that the NMCA is biased toward road infrastructure, which means it is difficult to get funding for the rail solutions some actually prefer. In short: the models used to obtain knowledge can also hinder one in processes of knowing.

It therefore makes sense that a second statement endorsed by the majority of the respondents is the idea that technical analyses should be complemented by "other forms of knowledge." It appears that what is meant by "knowledge" in this context does not necessarily refer to "knowledge" as something obtained through studies in the scientific sense of the word:

> Respondent: [Have people] help think from the beginning about what should be happening in the region, collect ideas, that helps enormously. […] You try to prevent that people get surprised, or that government gets surprised by things that matter to people from the region, so you can come up with the best plans.
>
> Interviewer: Doesn't that make the process less rational?
>
> Respondent: On the contrary, I would say. Because you make a better plan. So, you add more rationality, and more public support. […] Citizens can have all sorts of great ideas about how you should adapt something to the environment that engineers and all sorts of clever people at the ministry hadn't thought of yet. […] If you start that early in the process and keep creating space for it, then it leads to the best plan. In terms of support, but also in terms of content.

In fact, it seems that to "know" does not necessarily mean knowing as a result of studying, there are also things you "just know":

> Interviewer: But what if the study shows that it is a great idea?
>
> Respondent: Yes, well, that's what they're doing now, and we agreed that we'll discuss it in the next [meeting, …]. And then it is up to the [ministers and governors], I mean, I can already predict the reaction of the civil servants here. […] It is just very hard to find a rational argument for investing [in that project]

In this scene, the respondent describes a situation in which a study outcome does not really matter, as people in their department "just know" that the project being studied will not be a success. In other words, knowing can mean "finding out through rigorous study," but it can also mean that civil servants ask local people or people who have experience with similar projects whether they believe something is a good idea. Even though respondents still refer to a knowable reality in the statements in this section and only a minority of them seems to actively believe that objective knowledge does not exist, they indicate that not-scientific knowledge—knowledge that might be considered more subjective by modernist standards—is in fact sometimes essential knowledge.

The social dimension featured so prominently in the interviews that it justifies a fourth category of statements. These statements do not so much relate to the research process as a scientific enterprise, but to the social dimensions of knowledge use and -creation. In this set of statements, conveying the sentiment that people are not so much concerned with obtaining objective, universal truths about the world, three statements stand out. First, it is interesting that respondents do not appear to think of themselves as people who have the ability to actually read and map a "real world" and include all necessary knowledge. Instead, they "do their very best."

A second point of interest is that ambitions play a substantial role in processes of knowledge creation and use. This influence goes further than just determining whether a certain problem gets studied or not. It also shapes the entire study process and design. For instance, a study process often starts with the question what everyone wants out of the process. "You see where there's energy," one respondent called this process. This energy is not only important when starting a process of knowledge collection and creation, it also matters when it comes to the adoption of outcomes:

> There has been a study which dealt with the question 'up to what extent do the outcomes of cost-benefit analyses match with the final decision'. And then you see that many projects are being executed of which the cost-benefit analysis says you shouldn't. […] Especially with maritime transport and railway projects … they just generally don't do very well in a cost-benefit analysis. But we do build waterways, and we do build railway projects. It's just based on a different way of thinking. A different point of departure. [The idea seems to be that] railway projects are just good for society, and terms of costs-benefit analyses that is questionable, but … (mumbles).

The idea that energy decides what gets studied, does not necessarily goes against modernist conceptions of knowledge. After all, it does not mean that respondents do not believe in objective knowledge. However, the fact that respondents also indicate that decision makers do not always feel obliged to follow a study's outcomes does mean that they do not see these studies as pointing toward an objectively right solution. After all, if that were the case, why would people not simply adopt the outcome of a study?

The prominent influence of energy also means that power is a more important factor in policy processes than modernist theories suggest. Rather than deciding objectively based on knowledge, infrastructure policy is made based on the preferences of prominent actors. In the case of Dutch infrastructure, the national government funded large most projects, meaning that regional governments depended on it financially. As such, the national government could more often ignore studies when they did not match their agenda—like the civil servant indicating that a project had little chance of getting funding because it was "very hard to find a rational argument for investing" in it regardless of what study outcomes would say—whereas others had to use knowledge as ammunition to get their policy ideas on the agenda, as described by this civil servant working for regional government:

> If you're just telling them 'we should build a tunnel', the secretary of state is going to ask you 'says who?' But with just [a study indicating you should build a tunnel], you're also not going to get what you want. […] It is really a mix of both.

In general, it can be concluded that the idea of a knowable world in the archetypical modernist sense mainly is referred to as an abstract principle; it occurs when people

give general descriptions of the way processes run. When asked for more detail, they indicate that "knowing" something is not as straightforward as their initial statements suggest. Also, it is proceeded by "wanting," and a study's outcomes have to be in line with the ambitions of decision makers to actually be adopted. In addition, scientific knowledge is complemented by other forms of knowledge and the power balance in a process decides up to what extent studies play a role in decision-making.

Control

Control over the impact of policies is modernism's second promise to policy makers. When talking about the subject of control, the pattern that occurs is similar to that observed when discussing knowability. Respondents will initially paint a picture in which they appear to believe that knowledge provides control, and will nuance this picture when asked to specify their statements. Table 3 provides an overview of the summarizing statements made about control. The first three groups of statements ("control is possible," "control is possible, under certain conditions" and "control is very difficult to achieve") represent decreasing levels of belief in control. Just as was the case with knowability, respondents explained how governments oftentimes take action without the belief that they have full control over the outcomes. Here, that sentiment has been labeled "people are not so much concerned with control."

In most of the interviews, respondents seemed to endorse the idea that scientific knowledge enables control over the outcomes over one's actions. Nevertheless, civil servants seem more cautious about their ability to meaningfully manipulate the world with their actions than they are about the possibility of gathering objective knowledge about that world. The explanation given most often, is that the current procedures are not sophisticated enough enable the exercise of control:

> The program has to be flexible. Flexible in the sense that … we can no longer look ten years into the future, so we are trying to make an estimation of what projects will be needed, but in two or three years we might very well take some projects out, add some others.

Generally, respondents indicated that it is necessary to be adaptive and flexible in order to have some control over a generally uncontrollable situation. A similar sentiment is reflected by statements such as "the actions of others limit the amount of control we can exercise" and "control is possible, if we find the right connections with other policies." These statements all suggest that the impact of complexity can best be mediated by more sophisticated studies and procedures. That belief is in line with the modernist belief that control over policy outcomes is possible—civil servants just indicate this is hard to achieve.

Table 3. Number of interviews each sentiment related "control" appeared in.

Sentiment	In number of interviews (out of 13)
Control is possible	10
Control is possible, under certain conditions	13
Control is very difficult to achieve	10
People are not so much concerned with control	11

As was the case for knowability, many respondents later nuance their optimism about the ability to exercise control. A third category of statements suggests that whilst they are optimistic about the power of flexible procedures and knowledge, civil servants also experiences that achieving the desired effect is no sure thing. Unexpected things will impact your process regardless of what happens, as this statement conveys:

> That's the biggest danger of such a study, because the perspectives that are being studied are just models made for doing calculations. They are not realities that will actually materialize. You can be certain about that. And when it comes to the … to major uncertainties … of which we know they will have the biggest impact, about those uncertainties we actually have the least amount of knowledge. There are a number of technological developments and because we know so little about them, we cannot actually put them in models. Then you would get some kind of 'Back to the Future'-like image of the future.

A next category of statements suggest that, again, people primarily seem to be driven by a desire to act rather than a belief in modernist ideals. The statements connected to this sentiment suggest that people might simply not always want to or be able to take the necessary steps to exercise control. Quotes such as:

> It is also a matter of looking for the right political climate. With [the parties which are in government now], it is much easier to put transport on the agenda, compared to when [another party would be in power]. Then, you wouldn't even have to start about an extra lane on [a highway]. You just won't get it done. So, then you would have to focus on whether or not you can get people … public transport on the agenda. You have to look for momentum.

and:

> So you just see, I spend 20% of my time at the office, and 80% outside the door. Just to get an idea of [what's out there] and also to help projects move further together. Businesses here have united themselves in a [smart logistics centre]. 70 or 80 businesses […]. And those guys are important partners for us. If they say: we really need more capacity on the railway to Germany, that should really be a double track railway, well, those are the kinds of signals we'll take some serious action on.

illustrate that everyone involved in policy processes is dependent on the ambitions and willingness of others. When the ambitions of multiple parties coincide, a project has support and is more likely to get built. These two quotes also illustrate that it does not so much matter whether people believe they can reach a certain objective. What matters instead is that they want to do it. The question people seem to be asking is not "how can we, given the outcomes of our studies, meaningfully manipulate our environment to achieve our policy goals," but rather "what do we want to do" or "what can we get support for"?

The idea that people are driven by ambitions rather than a belief that their actions will impact their environment in the way they planned is strengthened by the observation that many respondents indicate that at some point, you "just need to make a decision":

> So [the project] is already running. So, the crux is that you are already so far in your decision-making process, that it is no longer realistic to stop these processes. And you can … there is something to say for being a predictable and trustworthy government which makes that you maybe shouldn't want to do that. […] Interests organize around the

> project. So, cancelling something, well, I think you would only do that if it is very far away in the future and you have not taken any significant steps from a legal perspective.

Another respondent adds:

> As a minister, you cannot say: 'I have been discussing [a certain trajectory] with the city for a few years, we are now going to just put it somewhere else.'

This need for certainty – or guarantees – runs quite deep, some respondents say:

> Respondent: If governors and ministers agree to make a financial contribution, they want to know what it is for. They want to be able to say that there should be a bike lane, and this and that. So actually, before you even start studying, an agreement gets drawn up which states what everyone pays, and then people want to be sure that those things actually get built.
>
> Interviewer: So then at the start of the process, you already have some sort of…
>
> Respondents: Preferential solution.
>
> Interviewer: A sol… that concrete?
>
> Respondent: That concrete. And of course, that clashes with the idea of studying things from a broad perspective.

Again, these statements complicate both the notion of exercising control based on studies and the idea that civil servants believe they have full control over the effects of their actions. Civil servants—and politicians, for that matter—are not certain of the effect of their actions, they "just have to decide" at some point. What is up for consideration in a policy process is impacted by studies, but it is also determined by guarantees people ask for in exchange for support. Regardless of what comes out of a study, people want to make sure the policy ends up matching their agenda. The interviews suggest that effectiveness is not the main criterium when making policy. Rather, ambitions and desires which pre-date the study process, are.

In addition, people do not seem very interested in whether or not they actually managed to exercise control. Presumably, people care about matters such as project delays or cost overruns. However, but once a project has been completed, the interest in its effects seems to fade. This is partially because of practical matters. Two respondents who specialize in process design stated that evaluation was made difficult because projects tend to take so long that most people who are involved in, for instance, conducting studies, tend to disappear from government before a project even gets finished. In addition, methods get updated and standards change, making evaluations based on studies that were conducted many years ago "not very interesting," as these respondents put it. This lack of interest caused by the fact that processes are "aimed at the build-up to a project, but afterwards it kind of stops," but also because of a broader societal disinterest:

> Well you just won't get called out on it, and that plays a big role. From the perspective of [developing] expertise in terms of content you should maybe want to evaluate more, but well, practice is as I just described it.

When it comes to control, then, civil servants seem to believe that studies and flexible procedures enable them to meaningfully manipulate their environment up to some extent. Policy makers see these procedures as aides to exercise some control over policy effects. Their practice, though, seems primarily governed by more pragmatic considerations. They

need to provide guaranties to all sorts of stakeholders. These guarantees often shape the process more than study outcomes. Additionally, they feel that there comes a point where you "just have to decide," regardless of what you know. Just as was the case with civil servant's belief in knowability, the statements civil servants make do not necessarily indicate they do not believe in the ability to exercise control. Rather, it just does not seem a very relevant consideration when making policies.

So, are civil servants modernists?

This study set out provide a practice-based reflection on theories of the state as a modernist institution by interviewing civil servants working in Dutch infrastructure policy processes about the two foundational principles of modernism: the idea that the world can (1) be known objectively and (2) controlled based on that knowledge. The aim was to see up to what extent modernism existed as a discourse, a set of beliefs held by civil servants, and as a practice.

As a discourse, modernism was definitely present in the conversations I had with civil servants. It was easy to connect their statements to the modernist promises of control and knowability. The general descriptions they gave of their practice almost univocally echoed a belief in the possibility of these two promises.

As a set of ideals held by civil servants, one could also argue that modernism exists, albeit that civil servants do have other ideals next the ones typically attributed to modernism. They also believe in the importance of public support, and do seem to believe that it is okay if policies are not in line with study outcomes if that is what the parties involved in the project can agree with.

As a practice, modernism was less clearly present. A government's practice seemed to be dominated by a desire to act that existed relatively independent of people's belief in modernist ideals. Civil servants indicated that study outcomes had little impact if they did not match the ambitions or "energy" of the people involved in the process. This energy comprised not only political ambitions, but also those of civil servants themselves or their department. Likewise, even though control seemed to be something that civil servants felt they should strive for through studying and updating procedures, it appeared government action was primarily motivated by a desire to act.

In the discourse of civil servants, then, knowing and controlling seem to be connected but not in the linear way theories of modernism suggest. "Knowing" is not a state that has to be reached before one can start to act but is rather something that comes between wanting to act and still wanting to act after studying—sometimes regardless of what has become "known" in that process. Neither modernist principle is a prerequisite for government action. Governments want to know and to control, but are primarily driven by ambitions rather than a science-based modernist agenda.

Concluding reflections

What does the importance of ambitions mean for theories describing the state as modernist? On the one hand, we have civil servants using modernist principles in descriptions of their practice. On the other, we have a practice in which these norms do not apply, and

civil servants know this. Modernism appears to be a set of norms floating in the air between actors: nobody believes or really practices them, everybody rehearses them when describing their practice. What appears to be the case, is that modernist-seeming behavior is in fact just a very basic human desire to do things which is legitimized by referring to modernist norms. Having the desire to expand a highway because you *believe* cars are essential to the economy and feel this will have an impact—which is different from expanding it because you *know* it will have an impact—is, at its core, not more or less modernist than conducting an academic study because you believe it will lead to interesting insights. Even though "believing" and "knowing" sound similar, the interviews featured in this study show that believing is not connected to the modernist beliefs in a knowable and controllable world. Rather, believing that something is or is not a good idea is based on factors such as an intuition based on years of experience working in government and the enthusiasm of other parties in a process.

The question that remains open is why modernist norms are used as a legitimization of a very basic function of human behavior. Their popularity suggests that there is something particularly attractive about these norms—a particular requirement that they seem to fulfill. A first potential explanation for this popularity is that they serve those in power maintain their positions (Triantafillou, 2015a, 2015b). Another potential explanation is that, like the work of Brunsson (1986) suggests, civil servants have to navigate different, contradictory demands such as a call for a-political decisions (Dorren & Van Dooren, 2021; Wolf & Van Dooren, 2017) in a context in which actions are primarily based on (political) ambitions and energy and which has been described as "messy" and a "swamp," (Lindblom, 1979; Parsons, 2002). Research on knowledge use has found that the neutral appearance and impersonal character of the model-based studies often used in infrastructure policy processes make them a good mediator between people with different positions (Dorren & Van Dooren, 2021; Triantafillou, 2015b), suggesting that this call for neutrality does indeed exist and has the practical function of overcoming policy deadlocks. In any case, the reflections on modernist theories informed by the empirical material in this paper suggest that regardless of the theoretical answers to this question that already exist, the question of the popularity of modernist norms as legitimation devices is a question needing an empirical answer.

Notes

1. Even though some of the studies referenced here are said to be based on a modernist ontology, one could at least expect the insights they provide to inspire modesty about the capabilities of a modernist state to put modernist principles into practice. For example, Simon (1976) does propagate the idea of rational government action, but also suggests that civil servants have limited capacity for such action (Miller & Fox, 1997).
2. A mode of governing in which decision-making is a joint venture between public and private parties. The state steers these processes, rather than making all the decisions herself (Rhodes, 1997).
3. A way of policy making in which bureaucrats decide on behalf of citizens, based on scientific evidence (Feitsma, 2018, based on Clarence (2002)).
4. Own translation. Original Dutch title: "Spelregels van het MIRT."
5. National Market and Capacity Analysis (Nationale Markt- en Capaciteitsanalyse, own translation).
6. Because of the limited availability of data for cross-border traffic.
7. In the maps generated by the model.

Acknowledgements

The author thanks 17 respondents for their invaluable cooperation, Robert van Putten, Joram Feitsma, Lennart van Loenen and Willem Trommel for their feedback on earlier drafts of this paper, and Naomi Peeters, Maud Pfeiffer and Julie Bosmans for transcribing the interviews.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This study was conducted as part of the Research Center Governance Innovation [2016–2020] and funded by the Flemish government.

Notes on contributor

Lars Dorren is an assistant professor at the Institute of Public Administration, Leiden University.

ORCID

Lars Dorren http://orcid.org/0000-0001-6069-7717

References

Bauman, Z. (2000). *Liquid modernity*. Polity Press.

Bell, S., & Hindmoor, A. (2009). *Rethinking governance: The centrality of the state in modern society*. Cambridge University Press. doi:10.1017/CBO9780511814617

Berger, P., & Luckmann, T. (1966). *The social construction of reality. A treatise in the sociology of knowledge*. Pinguin.

Bevir. (2010). *Democratic governance*. Princeton University Press.

Blessett, B., Gaynor, T. S., Witt, M., & Alkadry, M. G. (2016). Counternarratives as critical perspectives in public administration curricula. *Administrative Theory & Praxis*, *38*(4), 267–284. doi:10.1080/10841806.2016.1239397

Blumer, H. (1969). *Symbolic interactionism: Perspective and method*. Prentice-Hall.

Boswell, J. (2018). What makes evidence-based policy making such a useful myth? The case of NICE guidance on bariatric surgery in the United Kingdom. *Governance*, *31*(2), 199–214. doi:10.1111/gove.12285

Bovens, M., & 't Hart, P. (1996). *Understanding policy fiascoes*. Transaction Publishers.

Boyatzis, R. E. (1998). *Transforming qualitative information. Thematic analysis and code deveopment*. SAGE Publications.

Brunsson, N. (1986). Organizing for inconsistencies: On organizational conflict, depression and hypocrisy as substitutes for action. *Scandinavian Journal of Management Studies*, *2*(3–4), 165–185. doi:10.1016/0281-7527(86)90014-9

Callen, J. C., & Austin, E. K. (2016). Deterritorializing utopia: The possibility of techno-utopias in societies of control. *Administrative Theory & Praxis*, *38*(1), 19–36. doi:10.1080/10841806.2015.1128220

Clarence, E. (2002). Technocracy reinvented: The new evidence based policy movement. *Public Policy and Administration*, *17*(3), 1–11. doi:10.1177/095207670201700301

Cohen, M. D., March, J. G., & Olsen, J. P. (1972). A garbage can model of organizational choice. *Administrative Science Quarterly*, *17*(1), 1–25. doi:10.2307/2392088

Coser, L. (1974). *Greedy institutions. Patterns of undivided commitment*. Free Press.

Dorren, L., & Van Dooren, W. (2021). Chameleonic knowledge. A study of ex-ante analysis in large infrastructure policy processes. *Policy Sciences*, *54*(2), 289–312. doi:10.1007/s11077-021-09423-5

Dorren, L., Verhoest, K., van Dooren, W., & Wolf, E. E. A. (2018). *Plannen over Grenzen. De selectie en prioritering van infrastructuurprojecten*. Steunpunt Bestuurlijke Vernieuwing.

Farmer, D. J. (1995). *The language of public administration. Bureaucracy, modernity and postmodernity*. The University of Alabama Press.

Feitsma, J. N. P. (2018). The Behavioural State: Critical observations on technocracy and psychocracy. *Policy Sciences*, *51*(3), 387–410. doi:10.1007/s11077-018-9325-5

Feyerabend, P. (2010). *Against method* (4th ed.). Verso.

Flyvbjerg, B., Bruzelius, N., & Rothengatter, W. (2003). *Megaprojects and Risk*. Cambridge University Press.

Foucault, M. (2011). *Madness: The invention of an idea* (A. Sheridan, Ed.). Harper Perennial.

Frissen, P. H. A. (1999). *Politics, governance and technology. A postmodern narrative on the virtual state*. Edward Elgar.

Garfinkel, H. (2002). *Ethnomethodology's program: Working out Durkheim's aphorism*. (A. W. Rawls, Red.). Rowman & Littlefield.

Giddens, A. (1984). *The constitution of society*. University of California Press.

Gieryn, T. F. (1995). Boundaries of science. In S. Jasanoff, G. E. Markle, J. C. Petersen, & T. Pinch (Eds.), *Handbook of science and technology studies* (pp. 342–393). Sage Publications.

Habermas, J. (1987). *The philosophical discourse of modernity*. Polity Press.

Hall, P. (1980). *Great planning disasters*. Weidenfeld and Nicolson.

Kensen, S. (2000). The dialogue as basis for democratic governance. *Administrative Theory & Praxis*, *22*(1), 117–131. doi:10.1080/10841806.2000.11643430

Latour, B., & Woolgar, S. (1986). *Laboratory life. The construction of scientific facts* (2nd ed.). Princeton University Press. doi:10.1080/10841806.2000.11643430

Law, J. (1994). *Organizing modernity*. Blackwell.

Leijten, M. (2017). *What lies beneath. Bounded manageability in complex underground infrastructure projects*. Deflt University.

Lindblom, C. E. (1979). Still muddling, not yet through. *Public Administration Review*, *39*(6), 517. doi:10.2307/976178

March, J. G., & Olsen, J. P. (1975). The uncertainty of the past. Organizational learning under ambiguity. *European Journal of Political Research*, *3*(2), 147–171. doi:10.1111/j.1475-6765.1975.tb00521.x

Marks, P., & Gerrits, L. (2017). Evaluating technological progress in public policies.: The case of the high-speed railways in the Netherlands. *Complexity, Governance & Networks*, (1), 48–62. doi:10.20377/cgn-42

McSwite, O. C. (1997). *Legitimacy in public administration. A discourse analysis*. SAGE.

Miller, H. T., & Fox, C. J. (2007). *Postmodern public administration*. Routledge.

Minister van Infrastructuur en Waterstaat. (2018). *Rijksbegroting 2019. A - Infrastructuurfonds*. Minister van Infrastructuur en Waterstaat.

Ministerie van Infrastructuur en Milieu. (2016). *Spelregels van het Meerjarenprogramma Infrastructuur, Ruimte en Transport (MIRT)*. Ministerie van Infrastructuur en Milieu.

Ministerie van Infrastructuur en Milieu. (2017). *Nationale Markt- en Capaciteitsanalyse 2017*. Ministerie van Infrastructuur en Milieu.

Mouter, N. (2017). Dutch politicians' use of cost-benefit analysis. *Transportation*, *44*(5), 1127–1145. doi:10.1007/s11116-016-9697-3

Nutley, S. M., Walter, I., & Davies, H. T. O. (2007). *Using evidence. How research can inform public services*. Policy Press.

Parsons, W. (2002). From muddling through to muddling up. Evidence based policy making and the modernisation of British Government. *Public Policy and Administration*, *17*(3), 43–60. doi:10.1177/095207670201700304

Putnam, H. (2002). *The collapse of the fact/value dichotomy and other essays*. Harvard University Press.

Rescher, N. (1998). *Complexity. A philsophical overview*. Transaction Publishers.
Rhodes, R. A. W. (1997). *Understanding governance. Policy networks, governance, reflexivity and accountability*. Open University Press.
Scott, J. C. (1998). *Seeing like a state. How certain schemes to improve the human condition have failed*. Yale University Press.
Simon, H. A. (1976). *Administrative behavior. A study of decision-making processes in an administrative organization* (3rd ed.). The Free Press.
Stevens, A. (2007). Survival of the ideas that fit. An evolutionary analogy for the use of evidence in policy. *Social Policy and Society*, *6*(1), 25–35. doi:10.1017/S1474746406003319
Stevens, A. (2011). Telling policy stories. An ethnographic study of the use of evidence in policymaking in the UK. *Journal of Social Policy*, *40*(2), 237–255. doi:10.1017/S0047279410000723
Stone, D. (2012). *Policy Paradox. The art of political decision making* (3rd ed.). W.W. Norton & Co.
Taleb, N. N. (2010). *The Black Swan. The impact of the highly improbable* (2nd ed.). Random House.
Thornton, P. H., & Ocasio, W. (2008). Institutional logics. In K. Sahlin-Andersson, R. Suddaby, C. Oliver, & R. Greenwood (Eds.), *The SAGE handbook of organizational institutionalism* (pp. 99–129). SAGE Publications Ltd.
Triantafillou, P. (2015a). The political implications of performance management and evidence-based policymaking. *The American Review of Public Administration*, *45*(2), 167–181. doi:10.1177/0275074013483872
Triantafillou, P. (2015b). The politics of neutrality and the changing role of expertise in public administration. *Administrative Theory & Praxis*, *37*(3), 174–187. doi:10.1080/10841806.2015.1053362
Trommel, W. (2009). *Gulzig bestuur*. Lemma.
Tversky, A., & Kahneman, D. (1974). Judgement under uncertainty: Heuristics and biases. *Science (New York, N.Y.)*, *185*(4157), 1124–1131. doi:10.1126/science.185.4157.1124
van den Brink, G. (2007). *Moderniteit als opgave. Een antwoord aan relativisme en constervatisme*. Sun.
van den Brink, G. (2015). *Hoe wij beter over kennis kunnen nadenken* (Vol. 1). Boom bestuurskunde.
van Nispen, F., & Scholten, P. (2015). Policy analysis in the Netherlands: An introduction. In F. van Nispen & P. Scholten (Eds.), *Policy analysis in the Netherlands* (pp. 1–9). Policy Press.
van Putten, R. (2015). Bestuurskunde voorbij het maakbaarheidsdenken? *Bestuurskunde*, *24*(2), 74–84. doi:10.5553/Bk/092733872015024002008
Walgrave, S., & Dejaeghere, Y. (2017). Surviving information overload: How elite politicians select information. *Governance*, *30*(2), 229–244. doi:10.1111/gove.12209
Weiss, C. H. (1979). The many meanings of research utilization. *Public Administration Review*, *39*(5), 426–431. doi:10.2307/3109916
Wilson, W. (1968). The study of administration. In A. S. Link (Red.), *The papers of Woodrow Wilson* (Vol. 5, pp. 359–380). Princeton University Press.
Wolf, E. E. A., & Van Dooren, W. (2017). How policies become contested. A spiral of imagination and evidence in a large infrastructure project. *Policy Sciences*, *50*(3), 449–468. doi:10.1007/s11077-017-9275-3
Wright, C. L., & Turkienicz, B. (1988). Brasília and the ageing of modernism. *Cities*, *5*(4), 347–364. doi:10.1016/0264-2751(88)90025-X