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Citation
Dorren, L. (2026). The therapeutic function of evidence-based policy making: a study of ex ante analysis in infrastructure policy processes. *Critical Policy Studies*, 1-18. doi:10.1080/19460171.2026.2645809

Version:	Publisher's Version
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Downloaded from:	https://hdl.handle.net/1887/4308030

Note: To cite this publication please use the final published version (if applicable).

Critical Policy Studies

ISSN: 1946-0171 (Print) 1946-018X (Online) Journal homepage: www.tandfonline.com/journals/rcps20

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To cite this article: Lars Dorren (19 Mar 2026): The therapeutic function of evidence-based policy making: a Study of ex ante analysis in infrastructure policy processes, Critical Policy Studies, DOI: 10.1080/19460171.2026.2645809

To link to this article: https://doi.org/10.1080/19460171.2026.2645809

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Published online: 19 Mar 2026.

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CRITICAL POLICY STUDIES
https://doi.org/10.1080/19460171.2026.2645809

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The therapeutic function of evidence-based policy making: a Study of ex ante analysis in infrastructure policy processes

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ABSTRACT

Predictive or ex ante analyses are widespread and a considerable amount of government resources goes into making them. At the same time, it is widely recognized that their outcomes often have little impact on the actual outcome of a decision-making process. To explain their persistent popularity, this article presents an ethnographic study on three infrastructure policy processes. It shows that the primary function of ex ante analysis in policy processes is therapeutic. People in policy processes constantly find themselves in situations where all they have to rely on are their personal experiences and intuition. At the same time, other process participants view these two things as undesirable and irrational influences. Even though ex ante analyses are often produced by the very people participating in the policy process in question, their results are seen as something that comes about without any human interference. As such, ex ante analyses possess a certain agency that provides people with a seemingly neutral way to validate their preferences and the confidence to act on them. This therapeutic function comes at a cost: it forces people to replace their original arguments with analysis-based arguments, which has a negative impact on the democratic quality of policy processes.

KEYWORDS

Ethnography; actor-network theory; infrastructure policy; evidence-based policy

1. Introduction

In technically complex policy processes, governments spend considerable amounts of resources on predicting the impact of technical policy choices via *ex ante analyses*, hoping to improve the quality of decision making and to make processes more objective (Infrastructure and Projects Authority 2016; Jacob, Speer, and Furubo 2015; Ministerie van Infrastructuur en Milieu 2016; van Nispen and Scholten 2015; Vlaamse 2014), as recommended by organizations such as the World Bank (2014b, 2014a) and the OECD (2012, 2015b, 2015a). Ex-ante analyses such as the ones that will be the subject of this study take a set of policy preferences and real-world data and produce estimates of the real-world impact of policy preferences, often through computational models. Examples of popular types of analysis in infrastructure policy are the environmental impact assessment

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(EIA) and cost-benefit analysis (CBA). EIAs typically integrate multiple studies, each focusing on specific environmental features such as mobility, air quality, landscape, sedimentation, and noise. Each policy option is evaluated on each of these sub-domains, assigning impact scores ranging from −3 (indicating severe negative impact) to + 3 (reflecting substantial positive impact). This scoring system allows for direct comparisons among policy options across these dimensions. CBAs assess the economic impact of policy choices. The effects of policies are expressed as a monetary value (Klaassen and Hakvoort 2015). For example, in the case of a highway, analysts calculate time lost because of heavy traffic or the loss of a life due to an accident as economic costs, and a reduction of commuting time as a benefit.

Whilst often recommended, the use of these kinds of evidence in policy processes is also problematized by a substantive body of critical policy research (Newman 2017). These studies point to the inherently political character of ex ante analyses (Mouritsen and Kreiner 2016, Richardson 2000; Stone 2012), or describe how ex ante analyses do not necessarily make decision-making processes more rational, but instead have the potential to escalate policy conflicts and make policy processes messier rather than more coherent (Dorren and Wolf 2023; Parsons 2002). Policy makers are not naïve; they are aware of the limitations of ex ante analyses (Boswell 2022; Dorren 2024; Mouter 2017).

If evidence such as ex ante analyses does not necessarily make policy processes more objective or better and those involved in policy processes are aware of their limitations, why do governments continue to make use of them? Previous research suggests that the idea of basing decisions on evidence is heralded because evidence has certain functions. For example, its presence allegedly allows complex policy processes to move forward (Boswell 2017), it is a useful tool in crafting coherent 'stories' around the logic and necessity of a policy (Stevens 2011), and is said to help people imagine possible futures, enabling them to make decisions (Mouritsen and Kreiner 2016). While suggesting that the popularity of ex ante analyses might be found in their function, existing studies, critical or mainstream, do not explain why ex ante analyses are a particularly suitable instrument to fulfill the aforementioned functions. The ex ante analyses that one encounters in technical policy processes are, after all, costly and technically complex (Dorren and Van Dooren 2021).

This paper answers the question why ex ante analyses are a popular form of evidence-based policy making by employing ethnographic methods to investigate their function in the technically complex context of three infrastructure policy processes. It first describes how current theory interprets the functions of evidence such as ex ante analyses, and then turns to insights from science and technology studies to describe why it is essential to focus on the interaction between a policy instrument and its context to explain its impact. After outlining the ethnographic methods employed in this study, this article shows how ex ante analyses are set up in such a way that grants them a certain level of agency. Other process participants do not talk about ex ante analyses as human-made. Instead, they respond to it as if it were an independent process actor that is able to provide a-political judgments on policy options. This agency makes ex ante analyses fulfill a therapeutic role: it enables policy makers to act on their professional intuition and personal preferences in a context where these are seen as undesirable influences on the

policy process. As such, the agency of ex ante analyses also enables agency of other process actors.

2. Describing function: the process effects of using evidence and the importance of focusing on the properties of policy instruments

Introducing ex ante analyses in policy processes is a form of evidence-based policy making (EBPM): an approach to policy-making in which (scientific) evidence plays a central role in determining the outcome of policy processes (Head 2008; Nutley, Walter, and Davies 2007). This is not as straightforward as it may sound. Actual evidence use is particularly hard to pin down. Sometimes, a piece of evidence directly inspires a policy decision. However, at other times, it will only be used as political ammunition in a debate or will not be used at all, with a number of factors influencing why that might be the case (Dorren and Van Dooren 2021; Newman 2017; Weiss 1979).

This is why, to understand the sustained popularity of EBPM, academics have turned to studying its secondary process functions. These studies suggest that even though evidence does not always inform policy decisions in a straightforward way, it still has a positive impact on policy processes. For example, Boswell (2017) calls evidence-based policy making a 'useful myth.' According to Boswell, policy makers do not necessarily believe evidence points toward politically neutral and objectively best decisions, but do find that EBPM comes with an attractive set of principles such as the *intention* to work in a neutral. These principles allow policy actors to commit to a process even if their policy preferences vary widely. Feitsma (2018a, 2018b) describes how appearing to act based on the strictest EBPM principles is something that helps policy makers sell their ideas, regardless of whether these same policy makers actually adhere to these principles in practice. Similarly, Stevens (2011) describes how evidence is used to craft 'policy stories': narratives that are used to convince others of the acceptability of policy decisions, especially when this decision is based on inconclusive information. Shotter and Haridimos (2011), Mouritsen and Kreiner (2016) and Verran (2002) offer accounts of how EBPM-related produce such as performance information or the following of methodological rules provides actors with a sense of control by structuring and making sense of their messy practice, and allows them to imagine the impact of their decisions in a world characterized by uncertainty. Dunlop and Radaelli (2013) mention that evidence can be used to explore the contents of a decision in the context of ambiguous policy options and when actors have little expertise on the problem at hand. In these contexts, it is as if the evidence asks actors: 'would you have the same preference if this were the impact?'

As a form of evidence, ex ante analyses distinguish themselves from other forms of policy knowledge by being explicitly future-oriented. Ex ante analyses try to predict the impact of policy choices in a way that allows decision-makers to compare different policy options (Klaassen and Hakvoort 2015). To do so, ex ante analyses employ a range of methods. The mathematical models used in economics and climate sciences are common, but in the particular cases studied in this paper, I also saw literature studies and 'qualitative assessments,' which means an expert in a specific discipline was asked to estimate the effect of a policy option. The impact of ex ante analyses on policy decisions seems limited (Gowan, Stephenson, and Shabman 2006; Turner 2006). However, ex ante analyses appear to have a range of process functions, from serving as political ammunition to filling

knowledge gaps (Dorren and Van Dooren 2021; Mouter 2016). Predictive instruments such as ex ante analyses are popular because policy makers find themselves in a context which is increasingly uncertain and complex (Boyer 2018). In this context, society looks at institutions and organizations as 'uncertainty reduction devices' (Boyer 2018, 57). This fits a wider trend in which we increasingly expect governments to reduce collective anxieties arising from the uncertainty and unpredictability of the future (Bauman 2000). As a result, expected future success has become an important legitimation for government action (Anderson 2010).

The question that remains open is what makes ex ante analyses the best tool for this job. The question is especially pertinent given the image painted by the literature on the process impact of these kinds of studies. EBPM in general has been criticized with making processes 'messier' rather than clearer and falsely depoliticizing political questions (Flinders and Wood 2015; Parsons 2002). The same has been said for the use of complex predictive ex ante studies. Ex ante analyses are known to 'obfuscate' policy conflict by creating misconceptions about the true nature of a policy process, creating wrongful expectations about what information a decision will be based on (Dorren and Wolf 2023). They are also costly and time-consuming, and their models are of a complexity that is hard to grasp for many policy process participants (Dorren and Van Dooren 2021; Elverding, De Graeff, and Ketting 2008).

3. Methods and cases

To discover the specific appeal of ex ante analyses, this study employs an ethnographic design. An ethnographic design has two distinct advantages over other approaches. First, it enabled me to witness the development of a process over time. Because of a relatively long period of exposure, I could capture the influence of behaviors such as forgetting and misremembering decisions. Also, I could observe changes in actors' attitudes over time without losing the micro-level detail needed to reflect the spontaneity, incoherence, and messiness of policy processes. The second advantage of the ethnographic design is that I was able to move beyond participant reconstruction. When asked to reconstruct a reasoning process, people tend to present an idealized, essentialist summary of the past, presenting it as a coherent whole (Czarniawska 1997) or providing an idealized summary (Dorren 2024). An ethnographic design, focusing on 'being there when it happens' (Ybema and Kamsteeg 2009, 6–7) allows me to move beyond how people conceptualize their practice and focus on practice as a day-to-day experience instead (Vagle 2016, 58).

3.1. Cases

I selected three infrastructure policy processes as cases. Two of these projects were situated in the Flemish region of Belgium, and one in the Netherlands. Despite the fact that the Flemish government is a regional government, it has similar administrative competences to the Dutch national government when it comes to infrastructure policy. Whilst neighboring countries, Flanders and the Netherlands are very different when it comes to their culture of evidence use. The Netherlands is 'commonly regarded as one of the strongholds of policy analysis' (van Nispen and Scholten 2015, 1) with a longstanding

tradition of integrating analyses in policy processes. Flanders has a culture in which policy decisions are 'primarily the results of political bargaining' up to an extent that it hinders the development of a strongly institutionalized culture of policy analysis (Fobé et al. 2017, 51). Both governments advocate the use of ex ante analyses in infrastructure decision making (Departement Mobiliteit en Openbare Werken en Departement Omgeving 2017; Ministerie van Infrastructuur en Milieu 2016). Studying cases within these two diverging contexts allowed me to see whether the patterns I observed were context-specific, or of a more universal nature. Table 1 contains an overview of the cases.

Infrastructure policy is a suitable setting for research into ex ante analyses, as the use of these analyses is highly formalized and extensive (Ministerie van Infrastructuur en Milieu 2016; Vlaamse 2014). For instance, the average infrastructure project undertaken by the Dutch national government took five years of studying before work on the final design started (Elverding, De Graeff, and Ketting 2008). I followed the development of the three infrastructure projects between November 2017 and June 2019. In the Dutch case and one of the Flemish cases, I observed meetings of the project management team, as well as public fora such as stakeholder consultations and information markets organized by these teams. For the second Flemish case, I only had access to public fora. Project management teams consisted of civil servants, who were accountable to a political 'steering committee.' These committees consisted of groups of high-level civil servants or politicians overseeing the progress of the project.

All three projects were in what was called the 'exploration phase.' In this phase, governments compared different solutions for an infrastructural problem in order to find out which solution would be the most suitable. During this phase, the project management teams met at least bi-weekly. Even though the project management teams were not making the final decision about what would get built, they were charged with the responsibility to enable the political steering committee to make an informed decision. This meant commissioning and discussing a wide variety of ex ante analyses, ranging from tide studies to traffic flow studies, and from cost-benefit analysis to environmental effect reports. But it also involved consulting citizens, interest groups, other

Table 1. Overview of the cases in this study, describing the type of project, the location, which types of ex ante analyses were used, and who conducted them.

Project type	Country/ Region	Types of ex ante analyses (observed)	Analysts
Highway project (NL1)	Netherlands	Environmental effects report, cost-benefit analysis, traffic studies. Predicting and monitoring the progress of behavioral and infrastructural interventions to reduce traffic on the highway.	Contract research conducted by several private firms. Studies were supervised by the project management team, who had access to in-house expertise for feedback.
Maritime transport infrastructure (FL1)	Flanders	Environmental effects report, cost-benefit analysis.	Contract research conducted by a private firm, supervised by the project management team, who had access to in-house expertise for feedback.
Multimodal transport with a strong maritime component (FL2)	Flanders	Environmental effects report, cost-benefit analysis.	Contract research conducted by a private firm, supervised by the project management team, who had access to in-house expertise for feedback.

governments and businesses during public participation fora. The majority of these fora were organized around the different studies that were conducted as part of the exploration phase. Attendants were asked to provide factual input to enhance the quality of the study, but were also asked to provide critical reflections on the way in which studies were run. Management team meetings typically ran between one and three hours long. Public fora took between two and six hours.

3.2. Data collection

I observed a total of 74 meetings between December 2017 and June 2019, adding up to 198 hours of observations. During my time in the field, I started coding data to capture ways in which ways participants responded to analysis instruments. In February 2019 (Dutch case) and March 2019 (Flemish cases), I noticed that observing additional meetings did not lead to substantial new insights. Aiming for saturation (Schwartz-Shea and Yanow 2009; Strauss and Corbin 1998), I continued observing meetings until the beginning of June 2019 to make sure no major new patterns were to occur.

My primary way of gathering data was by means of fieldnotes describing the meetings in short sentences or keywords. After each meeting ended, field notes were expanded where necessary to capture the meeting in more detail. Because the setting was often quite static – picture groups of people sitting around a table – the primary focus of my fieldnotes is on what people said and how they interacted, including tone of voice and non-verbal communication. In addition, field notes contain details on settings and places.

I had no role other than observe the three policy processes. This meant I could preserve a relative distance or 'disengaged position' (Ybema and Kamsteeg 2009) to the process. To ensure I understood the contents of the meetings, I engaged in small conversations with participants in the breaks of meetings. In addition to the meetings, I also had access to a portion of the e-mail communications on the projects. I was included in the e-mail lists that were used to send around the documents up for discussion in meetings. This meant that I had access to preliminary versions of analyses, as well as a variety of other documents which did not feature in my analysis but were necessary to understand the content of the processes I observed.

3.3. Data analysis

I analyzed my field notes inductively in the NVivo software environment. The analysis took place in three steps. The first step consisted of a round of line-based open coding of a number of meetings to generate a first set of codes and observations in June 2018. Open coding is the process of discovering initial ideas about patterns existing in the data (Strauss and Corbin 1998). During this round of coding *descriptive codes* were generated, containing little interpretation (Miles and Michael Huberman 1994). These codes described, for example, the type of analysis people were talking about, the organization of the person who happened to be speaking, or my initial ideas on the analytical meaning of a statement. Descriptive codes allow me to distinguish between cases, people and topics of conversation or observation. In the second round of coding, the content of relevant descriptive codes was analyzed in the second round of coding, creating *analytical codes*. These

codes have a more interpretive character (Miles and Michael Huberman 1994). The majority of these analytical codes were about reactions people displayed in discussions. For example: 'wants more detail,' 'questions realism,' 'applauds.' These codes were then applied to the remainder of the data.

The analytic codes were then analyzed in a round of axial coding, meaning that codes generated during the open coding stage were grouped based on a 'relationship they share' (Strauss and Corbin 1998, 123–27). This was done through data displays that showed which codes frequently co-occurred across all cases (Miles and Michael Huberman 1994). Looking at the patterns that arose from these rounds of coding, I saw that the way in which people talked about analyses gave these analyses an autonomy which seemed to resemble agency, which will be elaborated on in the remainder of this paper.

4. Results: the agency of ex ante analyses

From studying the way in which process participants responded to ex ante evaluations, it became clear that people treated the outcomes of analyses as something the analyses produced by themselves, without human interference. As such, analyses possessed what in *actor-network theory* is described as agency: an ability to influence the actions of other agents in a network (Callon 1991). In the work of Latour and Woolgar (1986), who studied knowledge production in scientific laboratories, one of the ways in which the agency of instruments such as ex ante analysis manifests is through providing translations. Latour & Woolgar's study laboratory research, where this agency manifests when scientists present a material substance – such as boiling water – to an instrument – such as a thermometer – which then produces a figure – a temperature measurement – to the scientist. The agency of the thermometer lies in the fact that scientists then have to take this outcome as a given, and rely on it in the next steps of their study. Of course, scientists would have the option to ignore the measurement outcome. However, this would be difficult for two reasons. First, the scientists – and the thermometer, for that matter – are embedded in a network consisting of all sorts of social and professional norms and standards as well as other people and objects. Communication in this network is only possible if you adhere to the dominant norms and standards – no use coming up with your own measurement standard if no-one understands what you mean by it. Scientists have been socialized in this context, so they would likely want to adhere to the measurement outcome for both intrinsic and extrinsic reasons. Second, ignoring a measurement outcome still means to relate to it. The measurement outcome, in other words, influences the actions of the scientist, independent of whether the scientist particularly likes that outcome or wants to adhere to it (Callon 1991). This makes agency relational; the thermometer needs the scientist to be able to exercise its agency, but the scientist's agency is subsequently impacted by the thermometer. What's more, the thermometer also enables the scientist to communicate findings to their surroundings. Predictive analyses are arguably more complex than a thermometer, but essentially work in a similar way. The analysis changes or 'translates' data from several sources into a number that other actors then have to relate to in their decision making (Callon 1991).

4.1. Constructing an actor

The particular way in which ex ante analyses were able to exercise their agency was largely a result of the particular way in which they were conducted; they were not made by one, but by many. At first glance, the question who conducts an analysis seems rather straightforward. In all three processes I observed the answer initially seemed to be 'an analyst.' Employed by specialized consultancy companies, they were hired by the Dutch and Flemish governments to conduct analyses such as EIAs and CBAs. I saw them attend many a management team meeting or public forum to answer questions by citizens and policy makers and collect input for the analyses. Analysts explained how to interpret results and why certain indicators were chosen over others, and wanted to know if they had missed anything in their assessment of the project environments. In the first few meetings I attended it seemed clear; the analyst makes the analysis.

However, as time passed, I started noticing that the analysts were not working alone; they were simply the visible representative of an intricate network of actors, together producing an analysis. When a government official would get a question on an analysis, they would generally refer to an analyst. Yet analysts did not have an in-depth answer to every question. When faced with questions about the logic behind using one set of norms over the other, analysts referred to government standards provided by particular government agencies. Reading the books containing these standards revealed that standards were drawn up by government agencies or consultants hired by agencies, basing themselves on information from other governmental bodies such as EU institutions, as well as scientific literature and expert opinions. For example, during a public forum in one of the Flemish cases (FL2), a university professor questioned some analysts about the models they used in their analysis. Instead of answering his questions directly, the analysts referred the professor to a guideline provided by the Flemish 'Bureau for Environmental Impact Assessments' (Anthea Belgium 2015). However, the Bureau is not the author of this guideline. Rather, the guideline has been commissioned by the Bureau, but was made by a consulting firm called Antea. When reading through that guideline, it becomes apparent that Antea based their guidelines on other guidelines by the Flemish Department for Mobility and Public Works and the Bureau for Environmental Impact Assessments, sets of legal rules indicating which modes of transport to prioritize over others, data on parking behavior from a Dutch study, and a combination of different models developed by different levels of government.

For some calculations, such as the economic costs of commuting, the Dutch and Flemish government would provide standard numbers such as a fixed cost per minute traveled. The guidelines also mentioned that there are data that the analysts should collect themselves when making the analysis. During my observations, I learned that this data could come from a wide variety of sources. I heard analysts mention doing measurements themselves, but also relying on official government data sources such as the Bureau of Statistics. These official sources are sometimes fed by real-world measurements in the direct surroundings of a potential project site, but would sometimes also model – for example – the expected pollution levels in an area by extrapolating measurements from measurement points further away from the site. If these kinds of numbers were not available, analysts would consult academic literature, but also 'expert judgements' by colleagues and interviews with project stakeholders. Where other sources are

quantitative, expert judgments and interviews would produce quantified estimates. An expert or stakeholder would give an idea of the impact of a policy choice, and the analyst would, if necessary, translate that into something that could be featured in the analysis.

What became apparent is that an analysis outcome was the product of the input of many different people and organizations. Because every individual involved only contributed a small part, discussions on the fundamentals of ex ante analyses were cut short and process participants were forced to accept certain limitations as non-negotiable facts as the person responsible for them would not be in the room or simply not known. Models were simply 'what government mandated,' standards were 'what is in scientific literature.' The ultimate consequence of this was that no actor could be held accountable for analysis outcomes except the analysis itself. This peculiar form of autonomy was amplified in speech and writing. A cost-benefit analysis was said to 'point towards the ultimate route' for a bike trail (NL1), a traffic study 'reveal[ed] that in twelve years, you will run into the same capacity problems if you choose this policy option' (FL1). Results were not seen as calculated by analysts, but outcomes of the analysis. Analysis judged policy options, not analysts.

4.2. Analyses as neutral actors

The fact that ex ante analyses were seen as separate from analysts had an effect that is key in understanding how they function in policy processes: its independence is a source of alleged neutrality. The clearest example of what this meant occurred during public fora. In all three cases, ex ante analyses were the core theme of these public fora. Generally, citizens would be invited to witness a presentation about the analysis and then come up with suggestions to improve it, or ask clarifying questions. The politicians who would decide what would ultimately get built, were not present during these sessions. To the participating citizen, this made it seem as if the policy process they were involved in was a process of coming up with an analysis that was as solid as possible, and which would be used to compare policy options to choose the best one. When politicians did interfere, this raised concerns about the 'objectivity' of the process, as voiced by these citizens in case FL2:

> I'm genuinely completely surprised by this suddenly appearing alternative. The government told us they wanted to handle things objectively, and now they suddenly add this alternative.
>
> 'I mean, the experts that did the study have been selected by the government; we don't have anything to say about that. Why were we not invited to think about these matters?'

Similarly, policy makers who were questioning the merits of heavily investing in public consultations made statements such as: 'the question is whether that comes from the analysis, or whether it is wishful thinking' (NL1). Citizens and politicians are perhaps usual targets for being called 'wishful thinkers' or not 'objective.' What is interesting here, though, is that experts also appear to be seen as not objective even though they were the ones making the 'objective' analyses. In other words: the processes I observed appeared to be characterized by a sharp distinction between the 'objective' nature of analyses and the irrational nature of people. Making such a distinction is only possible when you see an analysis as a distinct entity, existing independently of its producers.

4.3. Analyses and the tension between objectivity and realism

The way in which process participants distinguish between people and analyses signals a fundamental tension that process participants found themselves in, namely a tension between a demand to be 'objective' and a desire to be 'realistic.' At first glance, these terms might appear to have a very similar meaning. It is indeed true that both terms were used to signal a correspondence to a 'real' world, existing outside of personal preferences, and a world of which the rules could be figured out through a type of logic-based reasoning. However, 'objectivity' was, as illustrated above, attributed specifically to analyses and their a-personal constitution. Realism, on the other hand, seemed to mainly means two things. First, people referred to analyses as realistic when they match their own experiences, as illustrated by this member of an activist group protesting a project in case FL2:

> The activist lives on one of the banks of the river impacted by the project and has recently experienced a company moving from one bank to the other. Because of the substantial increase in traffic that lead to, the action group member has 'trouble believing that moving and building new things will have no effects.' [even though the ex ante analyses suggested significant effects on traffic in the area the activist mentions]

Generally, activists tended to be strong proponents of using ex ante analyses for what they would call 'objective decision making.' Therefore, it is interesting that in the above quotation, we find an activist doubting an analysis outcome. The activist compares the outcome of an analysis to a scenario they have personal experience with: the traffic outside their window. The deviance between what the analysis predicts and what the activist has experienced in the past leads them to question up to what extent the ex ante analysis is actually capable of predicting outcomes that apply to the real world. In other words: whilst they are not necessarily questioning whether the analysis was conducted objectively, they question its realism based on their own experiences.

The second meaning of 'realistic' was that an analysis had to match a person's general sense of logic. Consider, for example, the following scene from case NL1, which was observed during a meeting to collect input for the design of a study of the traffic impact of a set of policy proposals, one of which was a self-driving bus:

> The two civil servants are standing near one of the pillars in the meeting room, sipping their cups of coffee. 'Those self-driving buses,' one says to the other, 'do not stand a chance. They'd need their own lane, and if they wouldn't get that, imagine the number of times they'd have to merge . . . '

In this quotation, a civil servant – who happened to be trained as a traffic engineer – makes a case against the establishment of a bus route on a highway. Before the actual analysis has been completed, this civil servant already seems to know that self-driving buses 'do not stand a chance' of being a valid policy alternative to highway expansion for cars. Unlike the activist quoted earlier, the civil servant does not refer to a particular experience, but to a more general theoretical assumption about the efficiency of buses. Again, note how the civil servant does not necessarily question the objectivity of an analysis, but rather it's capacity to say something realistic about how buses work in the real world – this time based on a more general sense of logic about how traffic works.

The fact that both 'objectivity' and 'realism' seem to be requirements for evidence informed policy decisions becomes a problem when an actual decision has to be taken because of the way process participants define these two terms. When something is objective when it cannot be linked to an individual, but realistic when it reflects individual experiences, we are dealing with two irreconcilable requirements. There is a paradox at the heart of decision-making in these processes: people ask for objective decisions and are asked to be objective, but also to be realistic. How does one move, in this paradoxical context?

4.4. Analyses as therapy

This is a good moment to turn back our attention to the question that opened this article; what makes ex ante analyses such useful tools in policy processes, given that we know that they rarely determine the outcome of said processes? The answer lies in the paradoxical situation process participants find themselves in. As said, they have to navigate a tension between a desire to work in objective ways and a desire to take realistic decisions, which are two conflicting norms. Process participants such as policy makers experience a tension between what they know to be true, what their context sees as a valid argument and what kind of arguments they expect of others. From the way in which process participants reason, it seems like being objective and being human are almost inconsolable. Think, for example, of the objectivity of an analyst being questioned even though that analyst was involved in analysis which *was* seen as objective.

Throughout the three policy processes I observed, I saw how process participants, in particular civil servants, made use of ex ante analysis to reconcile their own sense of realism with a desire for objectivity. They would cite analyses selectively in ways that supported whichever position they found themselves taking in a particular moment. This use is therapeutic in the sense that actors seemed to not primarily use ex ante analysis to fill knowledge gaps, but to navigate the tension between their sense of realism and desire to be objective as well as an expectation of objectivity from their environment. In other words; analyses offered process participants reconcilement and self-confidence. At the same time, much like a therapist, an analysis would not just validate any position. It imposes a specific language and rationale which only accommodate a certain range of ideas. Let's look at these two attributes of ex ante analysis in more detail, to see how ex ante analyses' particular form of agency enabled their therapeutic role.

4.4.1. Analyses as a therapeutic tool in action: a flexible source of validation

It is easy to see the therapeutic function of an analysis in action when we zoom in on the different ways individuals use and interpret analyses over the course of a policy process. What immediately stands out when doing so is that ante analyses appear to enable very pragmatic use. In general meetings project management team members would frequently emphasize the importance of a 'usable' study, which 'allowed them to tell the story of the project' when talking to analysts. When consequently observing their behavior, the scope of their pragmatism became apparent. Actors who relativized the outcomes of an analysis in one meeting would treat these same outcomes as hard facts in a different meeting. For example, in case NL1, project managers described an analysis predicting the impact of their work as 'premature' when trying to convince one group of

colleagues that they were making good progress despite what the analysis suggested, but described that same analysis as showing a worrying lack of impact when trying to motivate another group of colleagues to speed up project delivery. Similarly, civil servants in case FL1 often discussed the analyses made for their project with great nuance. They referenced the difficulties of predicting the impact of a project in a complex environment, and were open about shortcomings in data or their search for appropriate measuring techniques. However, when it came to answering formal objections made by a local action committee protesting their project, the language changed. Suddenly, they referenced the analysis showing their project had 'no substantive impact' in terms that left little room for doubt. In other words; individuals interpreted an analysis differently depending on the context they found themselves in.[1]

Ex ante analyses can be interpreted with such flexibility because they are set up in a very particular way. On the one hand, their methods contain assumptions and omissions by default. Ex ante analyses try to model reality, but cannot possibly include each and every parameter that could potentially be of influence on a project's performance in real life. Therefore, ex ante analyses generally only include a set of factors that will most likely be of influence. This limitation allowed the ex ante analyses to be relativized; its outcomes were always the product of an incomplete model. On the other hand, the outcomes of the same ex ante analyses displayed a great level of detail. In all cases, cost-benefit ratios were predicted in eurocents, water level rises were predicted in centimeters. This level of detail allowed analysis outcomes to be discussed as if they were absolute facts; as if a project 'has no impact' or 'has impact' instead of 'perhaps having an impact.' The aforementioned agency of ex ante analysis amplifies this effect. Because the responsibility over analysis outcomes is so split-up that outcomes are ascribed to the analysis itself rather than analysts, there is no definitive authority that can judge whether or not a particular interpretation of an analysis is correct outside of the room for interpretation that an analysis *itself* would allow for. As such, and much like the scientist's thermometer, analyses enable and shape the agency of an array of other policy actors including opponents and proponents of a project, in this case by helping them reconcile their individual experiences with demands for objectivity.

The pragmatic use of ex ante analyses that I have described here shows that analysis use is often reactive: policy makers find themselves giving different interpretations of ex ante analyses in different contexts. This explicitly goes against the idea of ex ante analyses as an instrument guiding people toward a best policy option. It suggests that people do not expect analyses to provide one true, logically coherent view on a policy process. One could even argue that if there was only one obvious right way to interpret an analysis, it would be less useful as its use cases would be more limited.

4.4.2. Analyses as a project language

Being the only source of what process participants called objectivity, ex ante analyses took up a very central role. Government guidelines (Ministerie van Infrastructuur en Milieu 2016; Rijkswaterstaat 2010, 20; Vlaamse 2014) marked them an essential piece of decision-making information, which resulted in project roadmaps that allocated multiple years and multi-million-euro budgets for producing ex ante analyses. The process of choosing what to build and all the procedurally mandated stakeholder participation this included

focused on the ex ante analyses. This resulted in scenes like the following two, from cases NL1 and FL2:

> The meeting I am attending today is meant to 'map the project area'; the analysts want to ask citizen's input on specificities of the project area so their analysis is as complete as possible. To do so, they put up posters with maps of the project area in a room in city hall, and invited citizens to come and give their input by drawing on the posters and talking to analysts. One of the citizens present is a member of a local environmental activist group. 'We can solve this by having road users pay per driven kilometre,' the activist proposes. The rest of the group, including some of the analysts present, chuckles. Someone says that that does not really fit the scope of the project. The citizen says that if he gets cut off like that, there's no use in him being here. 'You cannot focus on this small piece of road between [A and B] if you want to address the bigger issues.'

> The owner of the sanitation company wants to tell the analysts that they feel it is a pity that traffic issues are always solved after they have arisen. They start a long story about how their company has suffered from recent construction works, and how the port authority only thinks about moving containers. They acknowledge that the analysts are there just to present a traffic study, but really wants to say that politicians should 'also take the effects on the local economy into account.'

These scenes are exemplary for how the fact that ex ante analyses took up such a central position forced process participants to reformulate their arguments for or against policy options in terms related to the analyses – or see their argument rejected when they failed to do so. In the first scene, a concerned citizen is told 'no' in a way that suggests their argument is seen as irrational because it does not fit the scope of the project and of the analysis used to predict the impact of the project. The kind of road tax the citizen proposes is a measure that would have a national impact, which is why the analysts label it out of scope and not worthy of further discussion. This implies that for an argument to be seen as valid, it has to fit the scope of what is being studied. In the second scene, the sanitation company owner's concerns cannot find a place in a meeting because their argument does not concern dimensions that are included in the ex ante analysis. Because the participation trajectory centers around ex ante analyses, this citizen does not have a venue to voice their concern in an impactful way. The predominance of ex ante analyses in the processes I observed caused a particular type of argument to survive, namely the type of argument that would fit the ex ante analysis. Over the course of each project, one would see a shift in the types of arguments that were used. Arguments against a project were replaced by arguments laying bare shortcomings of the analyses, whilst initial arguments in favor of a project were replaced by arguments provided by ex ante analyses.

The need to derive arguments from an analysis resulted in enormously detailed analyses. In the early stages of each of the cases, ex ante analyses focused on what was called the 'strategic level'; a way of saying that different project options would only be analyzed on dimensions that were deemed key in decision making, and where one would expect to find meaningful differences between project options. Regardless, at public meetings, citizens suggested to calculate effects such as 'tractors choosing new routes because of the project, which will potentially run through neighboring villages' (FL2). In public meetings, people never made suggestions to simplify analyses. Civil servants, albeit more pragmatic in terms of what they wanted to include, also appreciated highly detailed

analyses. After all, they were the ones having to answer citizens' very detailed questions on topics such as 'the temporary visual nuisance caused by the construction of each individual policy option' (FL1).

As a central language, ex ante analyses shape policy processes by determining what can, and what cannot be discussed. There were some positions which ex ante analyses cannot support because they fall outside the scope of the analysis, deviate too far from the analysis's outcomes, or cannot be studied with the particular set of methods employed by an analysis. In other words: ex ante analyses do not only provide support, they also judge peoples' positions. Arguably, an analysis that could be used so pragmatically that it would be able to support all position would not enjoy the same legitimacy. The way in which people in policy processes distinguish between the 'objective' and the 'realistic' indicates that they do want an analysis to distinguish between the two to a certain extent.

5. Conclusion and discussion

Governments are increasingly seen as 'uncertainty reduction devices' (Boyer 2018), which means they are expected to be able to act with a certain certainty about the impact of their policies. The research presented in this article results in a new characterization of the function of ex ante analyses as reducers of uncertainty. It argues that in an environment in which governments are expected to solve complex policy puzzles, ex ante analyses play a therapeutic role. Rather than informational, their function is to provide process participants with the validation they need to act under uncertainty. Process participants tend to rely on their sense of what they call 'realism,' meaning correspondence with their individual experiences in similar situations or projects. At the same time, participants find themselves in a context where anything too closely connected to a person is talked about as 'not objective' and therefore undesirable. Amidst this tension, we of course still expect our governments to act. Ex ante analyses enable individuals to legitimately act based on their individual experiences by offering an a-personal and therefore deemed-to-be-objective source of validation.

Ex ante analyses are seen as autonomous, meaning that their outcomes are attributed to them rather than to the people who make them. Consequently, when an ex ante analysis judges a policy option, it appears to do so independently of personal preferences of people involved in the policy process – despite it being at least partially made by those people. An analysis' neutrality allows it to fulfill a role which people would not be able to fulfill, as they would never be free of the accusation of having nonobjective personal preferences. Analyses are multi-interpretable, meaning that they can support a range of policy options rather than just one. However, there is a limit to what can be analyzed within the scope of their methods. This means that process participants were seen to reformulate their arguments in terms the analysis could support, or saw their arguments being outright rejected because they fell out of the scope of the analysis.

Whilst it goes beyond the scope of this article to dive deeper in the drivers behind the paradoxes and tensions in which the ex ante analyses function as a therapeutic tool, it is interesting to note that literature looking at policy processes through a psychoanalytic lens talks about policy as an expression of impossible desires (Fotaki 2010), bringing to mind process participants' unattainable desire for objective

decision making. But the picture of an ex ante analysis as a therapeutic device opens up more avenues for further research. First, this article describes three policy processes in which the individual and their preferences are something that should be approached with suspicion. This observation fits a broader discourse present in modern policy processes, in which individual preferences are to be observed with caution because they could be 'irrational' or against one's 'actual' self-interest, and need to be corrected (Dorren 2024; Feitsma 2018b; Parsons 2002), not unlike how it happens in a therapeutic treatment (Polsky 2008). In this discourse, evidence such as an ex ante analysis is presented as an antidote to policies which are dictated by personal agendas- (Mouter 2016, 2017; Wolf and Van Dooren 2017). This study shows that instead of being an antidote to potentially 'irrational' preferences, ex ante analyses legitimize preferences by supporting them with evidence which policy process participants label 'objective' even though it is very much the product of choices made by those same 'suspicious individuals.' It also shows that not all preferences receive equal support, for instance because they cannot be analyzed by the analysis' models or because they don't fit the scope of an analysis. Since the policy processes I observed revolved around deliberating preferences, the question that comes up is how the agency of ex ante analyses affects the democratic character of the policy processes they are used in, if they are not pointing toward objectively best solutions, but instead legitimize certain – but not all – preferences by making them seem objective.

Relatedly, the study gives rise to a question about the role of evidence in democratic decision making in relation to accountability. The prominent presence of ex ante analyses moved people to replace their original arguments with arguments derived from ex ante analyses. Arguably, this means that the responsibility for these arguments was also transferred to the analyses. If people transfer the accountability for their actions to an inanimate object such as an ex ante analysis, up to what extent do they experience accountability after this transfer? How can decision-makers be held accountable when their reasons for making a decision are replaced by arguments derived from an ex ante analysis? And, lastly, is a policy process in which individuals are not trusted as decision makers and need these kinds of therapeutic devices a desirable kind of policy process?

Note

1. A more elaborate account of this phenomenon can be found in (Dorren and Böhme 2021).

Disclosure statement

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

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Lars Dorren is an ethnographer at Leiden University's Institute of Public Administration. Lars has an interest in reasoning as a dynamic, erratic group process, practical consequences of philosophies of science, and the many meanings of 'truth', 'neutrality' and 'rationality' in policy processes.'

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References

Anderson, B. 2010. "Preemption, Precaution, Preparedness: Anticipatory Action and Future Geographies." *Progress in Human Geography* 34 (6): 777–798. https://doi.org/10.1177/0309132510362600.

Anthea Belgium. 2015. *Richtlijnenboek MER "mens-mobiliteit"* [Guidelines EIA "People-Mobility"]. Brussels: Anthea Belgium.

Bauman, Z. 2000. *Liquid Modernity*. Cambridge, MA: Polity Press.

Boswell, J. 2017. "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. https://doi.org/10.1111/gove.12285.

Boswell, J. 2022. *Magical Thinking in Public Policy: Why Naïve Ideals About Better Policymaking Persist in Cynical Times*. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780192848789.001.0001.

Boyer, R. 2018. "Expectations, Narratives, and Socio-Economic Regimes." In *Uncertain Futures. Imaginaries, Narratives, and Calculation in the Economy*, edited by J. Beckert and R. Bronk, 39–61. Oxford: Oxford University Press.

Callon, M. 1991. "Techno-Economic Networks and Irreversibility." In *A Sociology of Monsters. Essays on Power, Technology and Domination*, edited by J. Law, 132–164. London: Routledge.

Czarniawska, B. 1997. *Narrating the Organization. Dramas of Institutional Identity*. Chicago: University of Chicago Press.

Departement Mobiliteit en Openbare Werken en Departement Omgeving. 2017. "'Complexe Projecten'." http://www.complexeprojecten.be.

Dorren, L. 2024. "Locating the Modernist State. OnItempstart> Whether or Not Modernist Principles Govern Contemporary Policy Practice." *Administrative Theory & Praxis* 46 (1): 76–94. https://doi.org/10.1080/10841806.2023.2176076.

Dorren, L., and M. Böhme. 2021. "The Practice of Motivated Reasoning: Observing Knowledge Use in Real-World Policy Processes." *International Review of Administrative Sciences*. https://doi.org/10.1177/00208523211047355.

Dorren, L., and W. Van Dooren. 2021. "Chameleonic Knowledge. AItempstart> Study of Ex-Ante Analysis in Large Infrastructure Policy Processes." *Policy Sciences* 54 (2): 289–312. https://doi.org/10.1007/s11077-021-09423-5.

Dorren, L., and E. E. A. Wolf. 2023. "How Evidence-Based Policymaking Helps and Hinders Policy Conflict." *Policy and Politics* 51 (3): 486–507. https://doi.org/10.1332/030557321X16836237135216.

Dunlop, C. A., and C. M. Radaelli. 2013. "Systematising Policy Learning: From Monolith to Dimensions." *Political Studies* 61 (3): 599–619. https://doi.org/10.1111/j.1467-9248.2012.00982.x.

Elverding, P., J. J. De Graeff, and N. G. Ketting. 2008. *Sneller en beter. Advies van de Commissie Versnelling Besluitvorming Infrastructurele Projecten*. The Hague: Rijkswaterstaat.

Feitsma, J. 2018a. ""Rationalized Incrementalism". How Behavior Experts in Government Negotiate Institutional Logics." *Critical Policy Studies* 14 (2): 1–18. https://doi.org/10.1080/19460171.2018.1557067.

Feitsma, J. 2018b. "The Behavioural State. Critical Observations on Technocracy and Psychocracy." *Policy Sciences* 51 (3): 387–410. https://doi.org/10.1007/s11077-018-9325-5.

Flinders, M., and M. Wood. 2015. "When Politics Fails: Hyper-Democracy and Hyper-Depoliticization." *New Political Science* 37 (3): 363–381. https://doi.org/10.1080/07393148.2015.1056431.

Fobé, E., B. de Peuter, P. J. Maxime, and P. Valérie. 2017. "Analytical Techniques in Belgian Policy Analysis." In *Policy Analysis in Belgium*, edited by Marleen Brans and David Aubin, 35–56. Bristol: Policy Press.

Fotaki, M. 2010. "Why Do Public Policies Fail So Often? Exploring Health Policy-Making as an Imaginary and Symbolic Construction." *Organization* 17 (6): 703–720. https://doi.org/10.1177/1350508410366321.

Gowan, C., K. Stephenson, and L. Shabman. 2006. "The Role of Ecosystem Valuation in Environmental Decision Making: Hydropower Relicensing and Dam Removal on the Elwha River." *Ecological Economics* 56 (4): 508–523. https://doi.org/10.1016/j.ecolecon.2005.03.018.

Head, B. W. 2008. "Three Lenses of Evidence-Based Policy." *Australian Journal of Public Administration* 67 (1): 1–11. https://doi.org/10.1111/j.1467-8500.2007.00564.x.

Infrastructure and Projects Authority. 2016. *Methods and Sources for National Infrastructure Delivery Plan 2016-2021*. London: Infrastructure and Projects Authority.

Jacob, S., S. Speer, and J.-E. Furubo. 2015. "The Institutionalization of Evaluation Matters: Updating the International Atlas of Evaluation10 Years Later." *Evaluation* 21 (1): 6–31. https://doi.org/10.1177/1356389014564248.

Klaassen, H., and J. Hakvoort. 2015. *Management Control Techniques for Government and Non-Profit Organizations*. The Hague: Sdu.

Latour, B., and S. Woolgar. 1986. *Laboratory Life. The Construction of Scientific Facts*. Princeton: Princeton University Press.

Miles, M. B., and A. Michael Huberman. 1994. *Qualitative Data Analysis*. Expanded sourcebook ed. Thousand Oaks: SAGE Publications.

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

Mouritsen, J., and K. Kreiner. 2016. "Accounting, Decisions and Promises." *Accounting, Organizations & Society* 49:21–31. https://doi.org/10.1016/j.aos.2016.02.002.

Mouter, N. 2016. "Dutch Politicians' Use of Cost-Benefit Analysis." *Transportation* 28 (1): 19–79. https://doi.org/10.1007/s11116-016-9697-3.

Mouter, N. 2017. "Dutch Politicians' Attitudes Towards Cost-Benefit Analysis." *Transport Policy* 54:1–10. https://doi.org/10.1016/j.tranpol.2016.11.001.

Newman, J. 2017. "Deconstructing the Debate Over Evidence-Based Policy." *Critical Policy Studies* 11 (2): 211–226. https://doi.org/10.1080/19460171.2016.1224724.

Nutley, S. M., I. Walter, and H. T. O. Davies. 2007. *Using Evidence. How Research Can Inform Public Services*. Bristol: Policy Press.

OECD. 2012. *Strategic Transport Infrastructure Needs to 2030*. Paris: OECD.

OECD. 2015a. *Policy Framework for Investment*. Paris: OECD.

OECD. 2015b. *Towards a Framework for the Governance of Infrastructure*. Paris: OECD.

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. https://doi.org/10.1177/095207670201700304.

Polsky, A. J. 2008. *The Rise of the Therapeutic State*. Princeton: Princeton University Press.

Rijkswaterstaat. 2010. *Handreiking MIRT-verkenning*. Delft: Rijkswaterstaat.

Schwartz-Shea, P., and D. Yanow. 2009. "Reaing and Writing as Method: In Search of Trustworthy Texts." In *Organizational Ethnography. Studying the Complexities of Everyday Life*, edited by S. Y. D. Yanow, H. Wels, and F. Kamsteeg, 56–82. Thousand Oaks: SAGE.

Shotter, J., and T. Haridimos. 2011. "Theory-As-Therapy. Wittgensteinian Reminders for Reflective Theorizing in Organization and Management Theory." In *Philosophy and Organization Theory*, edited by HARIDIMOS. Tsoukas and ROBERT. Chia, 311–342. Emerald Group.

Stevens, A. 2011. "Telling Policy Stories. An Ethnographic Study of the Use of Evidence in Policy-Making in the UK." *Journal of Social Policy* 40 (2): 237–255. https://doi.org/10.1017/S0047279410000723.

Stone, D. 2012. *Policy Paradox. The Art of Political Decision Making*. New York: W.W. Norton & Co.

Strauss, A., and J. Corbin. 1998. *Basics of Qualitative Research. Techniques and Procedures for Developing Grounde Theory*. Thousand Oaks: SAGE Publications.

Turner, R. K. 2006. *Limits to CBA in UK and European Environmental Policy: Retrospects & Future Prospects*, CSERGE Working Paper EDM, No. 06-17, Norwich: University of East Anglia, The Centre for Social and Economic Research on the Global Environment (CSERGE).

Vagle, M. D. 2016. *Crafting Phenomenological Research*. London: Routhedge.
van Nispen, F., and P. Scholten. 2015. "Policy Analysis in the Netherlands. An Introduction." In *Policy Analysis in the Netherlands*, edited by FRANS. van Nispen and PETER. Scholten, 1–9. Bristol: Policy Press.
Verran, H. 2002. "A Postcolonial Moment in Science Studies: Alternative Firing Regimes of Environmental Scientists and Aboriginal Landowners." *Social Studies of Science* 32 (5–6): 729–762. https://doi.org/10.1177/030631270203200506.
Vlaamse, R. 2014. *Decreet Betreffende Complexe Projecten*. Brussel: Vlaamse Regering.
Weiss, C. H. 1979. "The Many Meanings of Research Utilization." *Public Administration Review* 39 (5): 426–431. https://doi.org/10.2307/3109916.
Wolf, E. E. A., and W. Van Dooren. 2017. "How Policies Become Contested. Altempstart> Spiral of Imagination and Evidence in a Large Infrastructure Project." *Policy Sciences* 47 (4): 1–20. https://doi.org/10.1007/s11077-017-9275-3.
World Bank. 2014a. *Formulating an Urban Transport Policy*. Washington, D.C: World Bank. https://openknowledge.worldbank.org/handle/10986/20950.
World Bank. 2014b. *Public-Private Partnerships Reference Guide*. Washington D.C: World Bank. https://openknowledge.worldbank.org/handle/10986/20118.
Ybema, S., and F. Kamsteeg. 2009. "Making the Familiar Strange. A Case for Disengaged Organizational Ethnography." In *Organizational Ethography. Studying the Complexities of Everyday Life*, edited by S. Y. D. Yanow, H. Wels, and F. Kamsteeg, 101–119. Thousand Oaks: SAGE.