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CHAPTER 1

EVIDENCE-BASED POLICYMAKING: A MODERATE MODEL OF CONCEPTUAL ANALYSIS AND CRITICAL ASSESSMENT

Maurício Mota Saboya Pinheiro[1]

1 INTRODUCTION

This chapter aims to elucidate the concept of evidence in the scope of the evidence-based policymaking (EBP) approach and, based on a *moderate model* – which I will expound below – to criticize a traditional interpretation of this approach.

In a traditional perspective, evidence may be seen as an instrument of rationalizing decision-making processes in public policy. *Evidence* and *scientific evidence* are traditionally mistaken, denoting the knowledge generated from reproducible and systematized methods, emulating the natural sciences model.

Current literature on EBP seldom clarifies the conditions under which the concept of evidence in public policy is applied. Studies in this area are limited in stipulating definitions applied only to rather specific contexts or, the other way round, providing too generalized and non-contextualized accounts of the concept. Hence, this issue deserves a deeper understanding.

The analysis of the concept of evidence displayed here follows a method that culminates in what we call a *moderate model* because of its balanced, sensible, and pragmatic assumptions. This model will lead us to a broader, more realistic, and deeper perspective on EBP, according to which evidence will be definable only in a determined context of action. This perspective will ground both the clarification of the concept of evidence and some criticism of a traditional view of EBP.

In order to accomplish its aims, this chapter articulates seven sections, including this *Introduction* and the *Final remarks*. Section 2 lays down the foundations and methods to elucidate the concept of evidence. Section 3 describes the traditional perspective on EBP. Section 4 presents the moderate model, plotting it on the literature and shedding some light on their epistemological and ontological presuppositions. Section 5 sets the background of policymakers' actions in a contextual frame. Section 6 shows how the model works through some Brazilian

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examples of public policy decisions. Finally, *Final remarks* sums up the main steps of this chapter's discussion.

2 FOUNDATIONS AND METHODS

The concept of evidence is intrinsically vague and multidimensional,[2] in part because it is strongly normative. Either in common sense or in the theory of knowledge, the term *evidence* denotes different things, thus belonging to quite varied ontological categories (Pinheiro, 2020a, p. 31). Therefore, "evidence" does not fit into a precise definition, as if it were akin to a logical or mathematical concept.

However, it does not mean that the concept in question is "immune" to rational analysis or that it cannot be empirically operationalized with reasonably high levels of precision. In fact, one can define contexts under which the concept of evidence can be precisely applied, and this can be a desirable procedure depending on the purposes of the research in question. However, in this chapter, instead of making ad hoc conceptual stipulations, we propose a philosophical method of analysis.

In order to clarify a concept, we need, first of all, a set of background epistemological assumptions. An intuitive way to grasp this idea is to note that we never apply a concept in isolation, but rather in a way semantically connected on webs. For instance, the concept of *a typical summer day* is linked to others, such as those of *sun*, *heat*, *leisure*, *beach*, *vacation*, *cold beer*, *ice cream*, and so on. On this web, there is no place for a geometrical concept such as an *isosceles triangle*. At least in most contexts our understanding and/or correct application of the concept of *a typical summer day* does not depend at all on our understanding and/or correct application of the concept of an *isosceles triangle*. Hence, the conceptual web of *a typical summer day* has boundaries regarding other conceptual webs. These boundaries are what we call here the *background epistemological assumptions*.

The background epistemological assumptions of the concept of evidence in public policy concern the socioeconomic (cultural, political etc.) processes affected by public policies. Those assumptions also have to do with the foundations of policymakers' decisions. Let us call them, considering their double application – impersonal processes and personal decisions on public policy –, *public policy assumptions*.

Moreover, public policy assumptions and the way policymakers define and rank the evidence used in their policy decisions are inter-related. If public policy processes are construed as mostly rational, with their components and mechanisms seen as clear and foreseeable, then the evidence used in order to support public

2. A concept is vague when its field of application has no clear borders. In other words, the extension of the set of objects denoted by the linguistic expressions of this concept is neither given beforehand nor can be determined in an absolute way. In turn, a concept is said to be multidimensional when its several aspects neither belong to a unique ontological sphere nor can be "measured" in a single "system of coordinates".

policy decisions will tend to be empirical data, of the kind employed as inputs of quantitative models in natural sciences. In this case, let us call it a *rationalist decision model*, for its assumptions concerning the policymaker's decision are purely rational.

However, if the social reality affected by public policies is construed as an iterative process among agents whose decisions are not at all foreseeable – as they are made in an environment of irreducible uncertainty –, then the set of evidence used in public policy will be rather enlarged. In this case, evidence would include even some subjective items such as beliefs, judgments, and personal values. Therefore, we may call this model a *constructionist* one because the context of a policymaker's decision is built on actions, more or less unforeseeable and interested, of the public policies' stakeholders.

When characterizing the rationalist and constructionist models, we draw on vast literature on EBP. Sanderson (2002), Marston and Watts (2003), Amara, Ouimet and Landry (2004), Nilsson et al. (2008), Freiberg and Carson (2010), among others, in their analysis of the use of evidence in public policy, consider the idea of there being an opposition between the generic rationalist and constructivist approaches. Lejano (2006) deserves a mention here because of his clear and historically construed way of characterizing the *rationalist* and *constructionist* models, although Lejano does not use this terminology very often.

Firstly Lejano (2006) remarks on how the concepts of modern philosophers of Illuminism (rationalists and empiricists as well) were later incorporated into the analysis applied to public policies. The model of choice inspired by the work of von Neumann and Morgenstern (1944) is a noteworthy development of those concepts. Von Neumann and Morgenstern have modeled the social judgment according to the best choice among a rank of known possible alternatives. It is essentially a deductive model assuming that all variables required to assess a course of action are comparable and commensurable in terms of utility or value.

In opposition to that classical model of choice – coinciding in outline with what we call here a rationalist model –, there is a range of ideas Lejano (2006) labels as "post-positivist". In the 19th century, Marx, Weber, and Nietzsche were pioneers of a reaction to the rationalist model. This reaction would spread fast from the 20th century on. In particular, the works of Wittgenstein, Thomas Kuhn, Foucault, the critical theory of the School of Frankfurt, the pedagogy of Dewey and Piaget, and the phenomenology of Husserl and Heidegger are important milestones in the course of a critical movement against the rationalist model.[3] Concepts like alienation, will of power, domination, instrumental rationality, technocracy, negative dialectics, intersubjective communication, genre, colonialism,

3. In social science, authors such as Karl Mannheim, Edgar Morin, Yehezkel Dror, and Carlos Matus made important contributions to the constructionist perspective. I am grateful to a reviewer for reminding me of those names.

learning in practice, phenomenology, psychoanalysis etc., coming from different fields of knowledge, all belong to a wide conceptual web called by Lejano (2006, p. 12) "post-positivism". This way of thinking rejects logocentrism, along with the reification of the meanings of linguistic expressions and of the concept of truth. Moreover, constructionism supports the idea of both social realities and the various forms of knowledge to be socially built, linguistically interpreted, and politically disputed. Science itself, as one form of knowledge among others, falls under those descriptions. Stakeholders' fights for power (in a broad sense) play a remarkable role. This post-positivist conceptual web, as labeled by Lejano (2006), fits pretty well with what we call in this chapter the *constructionist model*.

In reality, what one finds more often is an intermediate model between the pure types of the rationalism-constructionism *continuum*.[4] Therefore, I suppose an intermediate model to be more realistic than an extreme one. One of the challenges this chapter seeks to overcome is to characterize this intermediate model, highlighting its background epistemological assumptions.

3 THE TRADITIONAL POINT OF VIEW ON EBP

There is a perspective on public policy that, despite being found in official papers,[5] academic works, and common sense, is seldom conveyed in a thorough way, let alone analyzed in terms of their presuppositions and consequences to public policy. We call that perspective the "traditional point of view on EBP". In this section, we expound its basic premises and pave the way to some criticism we fully develop in section 6.

There are some general traits of the traditional point of view on EBP. First, one tends to conceive *evidence* exclusively as stemming from strict scientific methods. In other words, evidence is conflated with the results of rigorous, systematic, and reproducible processes of knowledge, especially those generated by experimental methods.

Secondly, evidence plays an instrumental role in policy decision-making, distinguishing what "works" and "does not work" in public policy. That is to say, the principle of instrumental rationality dominates the use of evidence. This means that evidence is a mere tool to achieve some "optimization" ends, whether it is the choice of more efficient policy intervention or better cost-effectiveness ratio. An instrumental use means a technical, impersonal, objective, and mechanical use. A public agent's decision is similar to an algorithm: through a finite number of

4. I owe this idea of a *continuum* to the excellent paper of Marston and Watts (2003). Nilsson et al. (2008) also use this idea.
5. For example, see some official papers of the British government (United Kingdom, 1999a; 1999b; Bullock, Mountford and Stanley, 2001) that in practice built the underpinnings of what would be known later as EBP: *Modernising government* (1999); *Professional policy making for the twenty-first century* (1999); and *Better policy-making* (2001).

steps and using scientific evidence it would be possible to tell which interventions lead or not to solutions to economic, political, and social problems in public policy.

In the third place, the traditional view assumes the ideal public policy decision-making to be neutral from a political and ideological point of view. This assumption appears clearly in a speech of the former leader of the Australian Labor Party, Mark Latham, in 2001:

> The myths of the welfare state are based on old ideological ways of thinking, a struggle between government-first and market-first policies. It is now clear that both approaches are flawed. The world has moved on. Welfare policymakers need to look beyond the old Left and the new Right to those evidence-based policies that can end the human tragedy of poverty (Latham, 2001[6] apud Marston and Watts, 2003, p. 149-150).

In Latham's speech, we can see a particular political stance – a third way had as superior to the traditional Left and Right – being supposedly legitimated by the "evidence" symbolical warrant. Reading between the lines, one can see the authority of science being invoked as the reason for the EBP's superiority. Thus, Latham's speech assumptions, when thoroughly conveyed, say that "objective" scientific evidence can put an end both to old political-ideological disputes ("government-first" versus "market-first" policies) and to one of the most painful scourges of humanity – poverty. Here the scientific evidence objectivity is put in opposition to the subjective, normative, and ideologically loaded character of the typical statements of traditional politics. The alleged objectivity of scientific evidence would allow the political authorities to make correct decisions – and, for this very reason, legitimate decisions – in public policy on behalf of the collective welfare. According to the advocates of the traditional point of view on EBP, such evidence would once and for all overcome the "myths" and the "old ideological ways of thinking" in public policy.

4 THE EPISTEMOLOGICAL PREMISES AND DELIMITATIONS OF THE MODERATE MODEL

There are reasons to avoid the most extreme versions of the rationalist and constructionist models, such as characterized in section 2. In Pinheiro (2020b, p. 21), these reasons are thus presented:

> The more rationalist the model under consideration, the more it will tend to disregard the complexity inherent to the public decisions' dynamics. Among the determinants of the abovementioned complexity, one can name the following: the decisions' nonlinearity, their multicausality, conditions of uncertainty, as well as the influence of beliefs, habits, traditions, emotions, values, ideology, and interests on public actions

6. Latham, M. Myths of the welfare state. *Policy*, v. 17, n. 3, p. 40-43, 2001.

and choices.[7] In turn, the more a policy agent supports his/her decisions on strict constructivist premises, the less he/she will be able to make general claims about the behavior of social, political, or economic agents. Ultimately, extreme constructivism turns the analysis and assessment of public policy unfeasible, which also applies to the role of evidence in public policy because the ultimate triggering process of policies – i.e., the agents' intentions – is construed as obscure, maybe unknowable.

Mostly based on some criticism of the rationalist model, literature suggests some moderate models.[8] However, there is little deepening of these models' epistemological presuppositions. In this section, we intend to fill this gap, at least in part.

4.1 The complexity of the social process

We need a moderate model whose epistemological assumptions allow the apprehension of the social, the political, and the economic as complex but rationally analyzable systems. According to Cloete (2009, p. 309), complex systems are open – that is, they interact with the environment – and they include many interrelated variables in nonlinear and dynamic ways. Other proprieties of complex systems are self-organization, multidimensionality, ability to operate out of equilibrium, and sensibility to historical contexts.[9]

A "paradox in late modern societies", according to Sanderson (2002, p. 19), is that "while the increasing complexity of social systems progressively undermines notions of certainty in social knowledge [regardless of what some illuminist tradition believed], it simultaneously raises the stakes in regarding the rational guidance of those systems". The search for a better understanding of those systems, not at all implying to leave evidence aside, stresses the need for deepening its use. Therefore, one ought to seek an increasingly intensive and extensive use of the available evidence, for what it is necessary some investment in assessment tools and computation methods, as well as in personnel capabilities, and so forth.[10] Since it is possible that we get at least probable knowledge of the social systems, it will be easier to make public policies more susceptible to enhancement through assessment based on scientific research evidence and evidence of other types.

7. Public policy decisions are usually involved in an atmosphere of uncertainty. This is due in part to the fact that it is impossible to know all variables affecting those decision-making processes. Moreover, as a kind of interactive game, some agents' decisions can only be known after the decisions of other agents are taken. I thank a reviewer for calling my attention to this aspect of the issue of uncertainty.

8. Sanderson (2002), Parkhurst (2017) and Saltelli and Giampietro (2017) are examples of this literature. A synthesis of these works can be found in Pinheiro (2020a, p. 20-21).

9. An excellent conceptual discussion and a presentation of the potential use of complex systems in public policy can be found in Furtado, Sakowski and Tóvolli (2015). See also, in the present book, the chapter *Simulações computacionais aplicadas à tomada de decisão pública* (*Computational simulations applied to public decision making*), authored by Bernardo Furtado and Antonio Lassance.

10. Nowadays, one may obtain the evidence used in the conception, implementation, and assessment of public policy through highly sensitive systems. They are designed to capture and process managerial information on specific policies and programs. I owe this idea to a reviewer to whom I am grateful.

We need to consider the possibility and viability of increasing the degree of understanding of some policy processes in an EBP moderate model. In those processes, policymakers' choices have to be stressed, in terms of the purposes and methods of the government actions. Now, one has to assume the rationality of those actions and choices – that is to say, their intelligibility and possibility of submission to critical scrutiny. However, a moderate model cannot undertake an a priori commitment to the kind of rationality one particular process has. This commitment will require a thorough examination of the case in question.[11]

4.2 The varieties of knowledge, discourses, rationalities, and... evidence!

The moderate model should welcome and reconcile different kinds of evidence, in several areas of policy, at the same time keeping the overall coherence of the model. Thus, it must be sensitive to many types of knowledge uses, comprising a variety of fields of knowledge and public policies. Therefore, the model has to envisage a broad view of those different branches of knowledge and policies. In particular, it has to have a wide comprehension of what we can understand by *evidence*, based on the premise that both the social reality and the conditions of an agent's decision are irreducibly rich and multifaceted.

By considering the plurality of evidence possibly informative to public policies, Mulgan (2005, p. 219) enumerates the following forms of knowledge available to governments:[12]

> i) statistical knowledge (for example, of population size and migration); ii) policy knowledge (for example, on what works in reducing reoffending); iii) scientific knowledge (for example, on climate change); iv) professional knowledge, often informed by rigorous testing (for example, on the impact of vaccination); v) public opinion (for example, quantitative poll data and qualitative data); vi) practitioner views and insights (for example, police experience in handling organized crime); vii) political knowledge (for example, the balance of opinion in the ruling party); viii) economic knowledge (for example, on which sectors are likely to grow or contract); ix) classic intelligence (for example, on the capabilities and intentions of hostile states or terrorist networks).

A moderate model for the use of evidence in public policy should acknowledge that decisions made by policymakers in different areas of policy are made under much differentiated evidential grounds concerning their epistemic credentials.

11. When talking about the rationality of decision processes in public policies, we mean only the knowability and intelligibility of those processes. These proprieties render them liable to representation and analysis through concepts, judgments, and reasoning. Rationality does not imply any connection to the truth of the propositions used in those processes, neither as premises nor as conclusions. For instance, a policy process could be rational – knowable, intelligible, and analyzable –, but based on false premises, that is, disconnected from the factual reality.

12. What we do in the following list, quoted from Mulgan (2005), is merely to give some examples, without any intention to present paradigmatic cases or to be exhaustive.

4.3 The epistemological status of subjects associated with public policy areas

Policy areas usually are associated with disciplines (subject areas) with different degrees of consensus, among the scientific community, on the rigor and robustness of the methodological and theoretical cores of those subjects. In addition, the degrees of scientific validation of the results of research in different subject areas are equally diversified.

In general, policy areas associated with the subjects recognized as the most rigorous and scientifically validated are those grounded on the most developed and formalized institutional arrangements. They also contain the most specialized, qualified, structured, and well-paid professional careers. In their case, scientific evidence is more available, and it is easier to reach a consensus about which interventions *work or do not work* in public policy. Conversely, in areas where the related subjects are not the object of a consensus in the scientific community about the rigor and robustness of the methodological and theoretical bases, it is unclear what does or does not work in terms of public policy. In these more recent subjects, which usually arise from the confluence of different fields of knowledge, reliable evidence is rarer and seldom leads to research results with high scientific validation.

This feature of public policy fields explained in the previous paragraph, I propose to call it here *epistemological status*. Thus, I propose that more traditional areas, such as *healthcare*, have a more consolidated epistemological status than more recent areas, such as *cybersecurity*.

Where does the idea of a scale of epistemological statuses applied to public policy fields come from? At the outset, I see the primary inspiration for this idea in American philosopher Willard van Orman Quine (1908-2000). Pondering over the criteria for choosing ontologies – that is, deciding what objects exist in the world –, Quine (1985) proposes a core of scientific knowledge. This is based on formal sciences (logic and mathematics) and natural ones (physics, chemistry etc.), capable of providing a simple conceptual scheme to encompass, organize, and explain the world's phenomena, which at first sight appear to us as a shapeless and fragmented mass. According to the author, a reasonable criterion for choosing ontologies also works for choosing scientific theories: "we adopt (...) the simplest conceptual scheme that can encompass and organize the disordered fragments of raw experience" (Quine, 1985, p. 227). Therefore, the simplicity and efficiency of a conceptual scheme to encompass and organize the array of phenomena in the world, as well as the objectivity of the validation of the results of theories – properties that galvanize consensus among scientists – are reasonable criteria, according to Quine (1985), for choosing ontologies. Formal and natural sciences were the most successful in this criterion, so they are at the core of scientific knowledge. This, however, is surrounded by a fringe of scientific subjects with lower degrees

of adequacy to Quine's criterion – among them, the applied social sciences, and the humanities.

Another inspiration for the idea of a scale of the epistemological status of the subjects and fields associated with public policy is Mulgan (2005). The author talks about *stable*, *in flux*, and *recent* policy fields in order to mark the varying degrees of consensus on the criteria for obtaining and using knowledge in the various public policy fields (Mulgan, 2005, p. 221-222). Mulgan's (2005) classification is, in its turn, directly inspired by Thomas Kuhn (2003), for whom the period of "normal science" – when the scientific community's consensus about theoretical, methodological, experimental, validation, explanation etc. standards prevail – may be followed by periods in which anomalies (unexplained phenomena) accumulate, entering a period of "extraordinary science", and finally by scientific revolutions. For Kuhn (2003, p. 35), the maturing of a specific science occurs when an entire scientific community can share a scientific paradigm. Mulgan's stable fields would be analogous to Kuhn's normal science; the fields in flux and the recent fields would correspond to the period of extraordinary science before the emergence and affirmation of new paradigms.

To know what is meant by evidence applicable to public policies requires the consideration of the degree of consolidation of the epistemological status of the subject or policy field at issue. In fields where policy action takes place on realities addressed by well-established sciences, such as the realities of natural sciences, there should be more consensus about what is meant by good quality evidence. This meaning will converge with the theoretical and empirical standards of these sciences. However, in fields of less consolidated sciences, as is the case of most public policies (education, social welfare, public security, labor etc.), the epistemological standards of the underlying sciences (humanities and applied social sciences) are less consensual. These fields accommodate a much more comprehensive range of possible evidence to inform public policies, albeit at lower degrees of epistemic power and scientific validity, regarding the quality ranking of such evidence.

4.4 The boundaries to the use of knowledge and evidence

The moderate model should be mindful of the boundaries of knowledge in each field and the boundaries of analogies between the natural world, studied by natural sciences, and the socio-political world, studied by the applied social sciences.

The knowledge used in policy assessment and decision-making should not be expected to be, as a whole, apodictic, demonstrative, exact, or infallible. The moderate model recognizes that public policy is based primarily on *conjecture*, for which moderation in causal explanations and inferences is recommended.

In many situations, such conjectures will allow decisions with only an average degree of certainty that policy interventions will work as expected.

The validity conditions of social knowledge must be assessed at least as carefully as for knowledge in natural sciences. Even in the latter, any evidence is context-sensitive since any observation depends on its context. Therefore, judgments drawn from the evidence will have a scope of validity, which must be circumscribed as clearly as possible. The criteria for the applicability of these judgments should be systematized and made explicit as much as possible (Oxman et al., 2009, p. 3).

As for the boundaries inherent to the nature of social knowledge (in comparison to knowledge in natural sciences), Mulgan (2005, p. 224) highlights: i) historical contingency: greater mutability, less capacity for generalization or universalization; ii) reflexivity: the actors themselves are both subjects and objects of social cognition, that is, their actions can transform this knowledge;[13] and iii) boundaries arising from the subject organization of the social sciences: there are knowledge gaps between the confines of these subjects. We could also point out that social knowledge has specific boundaries regarding its method, such as controlled experimental methods.

4.5 The relevance of conceptual analyses, methodologies, and theoretical frameworks

Preliminary conceptual analysis and theory-building work are essential regardless of the public policy field. Conceptual analyses and theories are like *lenses* through which the analyst sees and interprets reality, making it intelligible to themselves. In other words, concepts and theories provide the basic frames of thought in a given area of knowledge and consequently provide the conditions under which evidence is to be used.

Especially in areas ranked lower in the epistemological status scale, where scientific evidence of greater rigor and systematicity is scarce, good prior work of conceptualization and theorization may pave the way not only for possible future use of scientific evidence in public policy decisions but also for the use of other types of information, such as experts' personal opinions.

Usually, for beliefs, opinions, and values to lend themselves to supporting public policy decisions, it is necessary that some groundwork (conceptual, methodological, and theoretical) has been previously developed, showing the logical

13. Canadian philosopher Ian Hacking provides an interesting example here. The human individual, perceiving himself as an object of a given classification, can react by changing his behavior and thus changing the extent of the classification itself (Hacking, 1995; 1999). This aspect, according to Hacking, constitutes a remarkable difference between the typologies of the social sciences and the natural sciences – in the latter, the extension of classificatory categories tends to be more stable, although recent developments in physics have set this understanding in perspective.

entailments between those *beliefs*, *opinions*, and *values*, on the one hand, and the theoretical conclusions, on the other. Of course, opinions will not typically have the epistemic weight of scientific evidence, mainly because their generating mechanisms will not have the rigor and systematicity of the methods employed in sciences of higher epistemological status. However, since these more "subjective" elements are essential to the democratic public debate – and, realistically speaking, it is improbable that they will ever be left out of public policy –, they can and should be submitted to rational-critical scrutiny, being placed in a coherent background, and centered by a conceptual, methodological, and theoretical framework.

In short, rather than simply dismissing *non-scientific* elements or sources of information for public policy, the moderate model view advocates for a *systematized and rigorous critical* use of these elements and sources, based on the continuous development of conceptual, methodological, and theoretical frameworks. In this regard, policy analysts and policymakers should not be spared the intellectual duty of seeking to advance knowledge in their respective fields, developing their own analytical resources if necessary.

4.6 Listening to stakeholders

A moderate model should be open to the several types of information provided by the policy stakeholder(s). They should be considered as potential sources of evidence. In fact, one of the problems of the more rationalist models is the *technocratization* of the use of evidence; that is, it is assumed that only experts (scientists, academics, technicians) can produce evidence for public policies. This is often done at the expense of the use of information collected from various social stakeholders – mainly citizens and the target audience of the policies – considered of inferior quality, which leads to adverse consequences for the legitimacy of public policies in a democratic regime.

4.7 The clarifying aspect of evidence

Finally, in a moderate model, the role of evidence is less of being a *neutral* instrument of information for decision-making and more of shedding light on the complex problems involved in such decision-making. The influence of evidence here is indirect (Sanderson, 2002), fostering new ideas and arguments, providing ideas and elements to enlighten the context of policy decisions, and providing a framework through which problems can be thought. The purpose is thus to clarify the issues and set the ground for a broader public debate.[14]

14. Such an idea is already found in the pioneering work of Weiss (1979) and in the work of several other authors who have sought to explain the role or use of academic research evidence in public policy. See, for example, Sanderson (2002) and Young et al. (2002). Freiberg and Carson (2010), in turn, offer a criticism of this model.

5 THE PRAGMATIC DIMENSION AND ITS CONSEQUENCES FOR THE UNDERSTANDING OF THE CONCEPT OF EVIDENCE IN PUBLIC POLICY

5.1 The issue of use

The history of EBPs – as described by official discourse in the late 1990s in the United Kingdom – signals the role of evidence as a *means* to achieve public welfare purposes (satisfaction of users, taxpayers, and citizens) through the provision of public services (Solesbury, 2001). This general idea is echoed in much of the specialized literature to this day and seems to be based on the premise that the more scientific evidence is used in public policy decision-making the greater the benefits for the populations.

However, it is not necessarily true that decision-making processes based on scientific evidence, whether in the public or private sphere, lead to better outcomes than those based on less rigorous elements, such as intuition or personal opinions. For example, scientific evidence can be used to garner more power for its holders, regardless of the impact that such use has on the *common welfare* or the *public interest*, whatever the characterization those expressions are given.

Like any instrument that can cause benefit or harm, depending on the ways and purposes of its use, evidence in politics can also be objects of good or bad use, regardless of the scientific rigor with which such evidence may have been produced. Thus, a *deontological* reading of the use of evidence in public policy is possible, according to which evidence *should* be used with prudence and expertise, never casually, recklessly, or maliciously. In this line of thought, the quality of public policy decisions – that is, their positive impact on the common welfare – is also a function of how sensibly it is used.

According to Bamberger (2008, p. 128), the main problem with using information in public policy is that the increasing availability of such information nowadays does not seem to have resulted in better public policy decisions. According to a particular view, Bamberger's problem is rooted in the fact that EBP are still in an emerging (or transitional) stage, in which the tools required for the effective application of evidence in public policy are not yet mature. This view tends to point to mere technological advances and computing power as the primary sources of use of scientific evidence in public policy.

However, the problem of the use (including nonuse or inappropriate use) of evidence in public policy is more complex than the aforementioned deontological and technological or analytical inadequacy perspectives suggest. Such perspectives are incomplete, overlooking, for example, the fact that evidence is used in many different ways and for many different purposes, often according to criteria that have little to do with the efficiency, efficacy, and effectiveness of policies, let alone

with the degree of technological advancement of analytical and computational tools. Evidence often serves as symbolic instruments of political power, defense of ideological positions, and maintenance of the status of specific careers in the public bureaucracy. Factors as such should not be overlooked in our conceptual analysis, as they are crucial to the definition and relevance of the evidence employed in public policies.

Seeking to provide a broader view of the subject, the pragmatic approach adopted in this text points to the need to understand the use of evidence within a model or framework of actions (decisions) in public policy. Evidence here acts as a *means* for decision-making in public policy, even though the expression *means* is not unequivocal and may designate different realities, from specific techniques to theories, concepts, models, subjects etc. Methods, instruments, and tools are terms used in the literature to designate the means used by the stakeholder(s) in their decision-making in the public policy arena.

The *structure of the action* encompasses four structural elements: i) the agent; ii) their collection of beliefs, knowledge, preferences, skills, and abilities; iii) the purposes of the action; and iv) the means by which the agent undertakes the action to achieve their ends. As already suggested, this structure does not occur in an *ontological vacuum*; instead, it makes sense only in a background defined by a contextual frame, in which the relations of the elements above and those with other contextual elements of the action are shown.

The contextual frame and the background defined by it unite the structure of the agent's action. Thus, the structural elements of action (the agent, their informational instruments, their purposes, their collection of beliefs and knowledge etc.) should not be seen as independent and separate in the contextual frame. In effect, these elements interact. In particular, the use of evidence may alter the agent's body of knowledge about the reality in which he/she wishes to act and thus also modify the very purposes of the action. In a way, the instruments used in public action – including the evidence on which the decisions are based – are chosen or formed together with other elements of the agent's decision-making structure. Thus, it is only by paying attention to the contextual frame that one can understand why, despite their stated commitment and legal obligation to make their decisions on an impartial and evidence-informed basis, policymakers often set the scientific evidence aside and decide according to other criteria.

There are, however, countless ways to describe the context of public action. Literature generally does not delve into this type of analysis; more often than not, contexts are delimited based on a particular subject or policy field. For example, authors such as Upshur, VanDenKerkhof and Goel (2001) limit their analysis of the use of evidence to the field of health policies and propose a model capable

of encompassing several dimensions of evidence (quantitative, qualitative, personal, social, symbolic, evaluative etc.), making a distinction between the personal context (individual patient therapies, for example) and the community context (collective health). Other authors, such as Young et al. (2002) and Freiberg and Carson (2010), use Weiss' (1979) typology of the relationship between public policies and knowledge – knowledge-driven model; problem-solving model; interactive model; tactical-political model; illuministic model – to try to outline such a context of use.

5.2 The contextual frame

Our challenge is to connect key elements of the scenario, the context, and the general framework in which a public agent's action structure makes sense. This framework can comprise several things, phenomena, and processes, forming a background to condition the agent's decisions. In this text, we highlight three categories of factors that constitute this background: i) *political*: the temporality of politics (inertia, urgency), ideologies, power disputes, and democracy; ii) *epistemological* (policy assessment, uncertainty, reflexivity of social knowledge etc.); and iii) *normative*, *institutional*, and *organizational*. These types of factors coexist in the contextual framework of a public agent's decisions and can be considered complementary and interactive rather than mutually exclusive or detached.

Let us see, as an example, how the aforementioned epistemological and political factors may interact. In a study about the United Kingdom, based on a survey conducted in 2009, with public employees engaged in different areas of public policy, Stevens (2011) sought to shed light on this issue. The author aimed to explain the gap between the (moral and normative) commitment of policymakers to the use of evidence, on the one hand, and, on the other, the non-use (or not very appropriate and rational use) of it in practice. The method employed by Stevens (2011, p. 241) consists in "paying attention to how people use evidence in shaping human relationships as well as in the process of telling policy stories". These narratives are important because policymakers must convince others that their policy proposals are worth implementing. Thus, evidence is used as a tool of persuasion to *sell the policy* to the authorities and various segments of the bureaucracy, the non-governmental stakeholder(s), and the public. In this persuasive effort, *uncertainty management* and specific *unspoken rules for success in bureaucratic offices*[15] seem to condition how policymakers use evidence to make decisions. Policy proposals should be crafted in a way that meets these constraints. Finally, the results of Stevens' (2011) study do not suggest that British bureaucrats deliberately avoid, distort, or abuse evidence in their public policy decisions, but only that they are conditioned by a particular *way of thinking about the world* as to how they use that

15. Examples of such rules, according to Stevens (2011, p. 244): "don't specialize too much; be useful and find superiors who support you".

evidence. Stevens' research illustrates how epistemological (uncertainty management), political (authority support), and institutional-organizational (success in bureaucratic offices) factors are integral to the contextual framework in which policymakers' actions and decisions come to life.

5.3 Institutional, normative, and organizational constraints

Many studies seek to identify the conditions that hinder or aid a policy process better supported by evidence. How to put the right tool (evidence) in the hands of policymakers, and how to ensure that they know how to use it? This question seems to motivate these works. To answer it, we emphasize the development of effective normative and institutional means to bring together researchers, policymakers, and other audiences involved in the policy cycle and thus provide broad access to knowledge.

Some authors, based on international experiences, propose some measures, such as government funding of research in the policy fields most in need of this type of activity and the promotion of "the use of systematic review methods to assist the process of knowledge accumulation and synthesis" (Nutley, 2003, p. 5). In the extensive empirical study by Oliver et al. (2014), the main barrier to using evidence in public policy was the low access to relevant and good-quality research papers and the lack of timeliness of research findings. The same study detected that the main enabling factors were the collaboration between researchers and policymakers and the emergence of new knowledge transfer models. Training and continued technical-professional development of policymakers have also been pointed out as factors influencing the use of evidence (Nutley, 2003; Davies, 2004; Mulgan, 2005; Moseley and Tierney, 2005; Howlett, 2015; Cherney et al., 2015; among others). Furthermore, fostering the use of evidence from scientific research may encompass arrangements that promote the integration of staff with analytical capacity at all stages of the policy process.

It is necessary to allow knowledge to flow through policy networks or communities to encourage the use of evidence (of various kinds) and to foster healthy debate in public policy. To do so, it is necessary to be mindful of the fluidity of communication between the producers (researchers, academics) of scientific research and its users (policymakers and other stakeholders), i.e., that researchers can communicate their results in a way that is accessible to users, without distorting the interpretation of research results (Nutley, 2003; Davies, 2004). A vital element of this communicative fluidity is a common understanding of the policy problem at hand and the robustness of the evidence needed to address the solution to that problem. Experience shows that it is possible to build bridges between these two seemingly opposing worlds, even with modest actions – for example, by promoting

the local approximation of researchers and policymakers and by encouraging joint training programs between these two audiences.

The organizational aspect is often listed among the conditions that either aid or hinder the use of evidence to support public policies. Among the aiding conditions is, for example, the development of organizational cultures in which decision-makers value the results of scientific research. Studies such as those by Marston and Watts (2003) show that these organizational cultures are very heterogeneously distributed among policy communities and actors involved in public policy. In turn, the work of Moseley and Tierney (2005, p. 114-115), in addition to relating the use of evidence to specific characteristics of the professional careers of policymakers, lists the following cultural challenges to the use of evidence at the level of public organizations: i) overvaluing of practice over analysis; ii) resistance to experimentalism and innovation; and iii) excessive fear of losing the autonomy of professional judgment and expertise.

Finally, the study by Nilsson et al. (2008) reveals that the choice of policy assessment tools in public organizations in Germany, Sweden, the United Kingdom, the United States, and the European Commission is strongly conditioned by standard routines and practices and by the expectation that the results of the assessment will support the core beliefs of the dominant coalition – that is, it is a "politically based evidence production" (Nilsson et al., 2008, p. 352), quoting one of the interviewees in the United Kingdom. The latter, more *political* pattern of use entails a preference for instruments that are not too complex, that predict outcomes in a more or less vague way, and therefore less risky for the political positions of dominant actors. Also, according to Nilsson et al. (2008), one of the challenges for the future of EBP is to institutionalize the use of advanced assessment tools, such as those that have made *climate change* a sensitive public policy issue worldwide. Only such tools can deal with the most intricate, dynamic, and multivariate problems.

6 THE MODERATE MODEL AND THE CRITICISM TO THE TRADITIONAL VIEW OF EBP

The purpose of this section is twofold. First, it seeks to expose, through examples, how the moderate model works, whose assumptions were presented in section 4. The aim is to show that such a model applies to the reality of public policy, especially in Brazil. Second, this part of the chapter proposes a criticism of the traditional perspective of EBPs (section 3).

The moderate model provides a specific *grammar* for distinguishing the pieces of evidence that support policymakers' decisions in a plurality of possible public policy decision-making contexts. Through this model, it is possible to shed light on various aspects of the use of evidence in the factual situations in which public

agents make their decisions. The contextual frames – delimiters of backgrounds *woven* by factors of different natures (epistemological, political, institutional etc.) – acquire more precise outlines in each particular case.

One first interesting case is that of the National Committee for Incorporation of Technologies in the Unified Health System (Conitec), analyzed by Vieira, Servo and Piola (2020). Even though Conitec has clear rules on how to make its decisions when assessing health technologies to be used in the Unified Health System (SUS), based on scientific evidence of the highest possible degree of reliability, the study shows that there are contexts in which the decisions of the committee are made even if they are not in conformity with those rules. That is, the actions are not always based on the best evidence, and there is a marked difference in the quality of evidence depending on the type of medication or therapeutic intervention under assessment. It was found that, beyond stricto sensu scientific evidence (based on randomized clinical trials – RCTs), Conitec's decisions are also sensitive to other types of information, such as those from public hearings and court decisions.

The complexity of public agents' decision-making framework is exemplified in a surprising fashion in Soares' (2020) work. The author shows that the *lack of knowledge* about a specific policy problem that demands an urgent decision can be strategically instrumentalized to motivate this decision. Examining the case of the National Health Inspection Agency (Anvisa) decisions regarding issues related to the planting, regulation, commercialization, and use of cannabis for medicinal purposes in Brazil, Soares (2020) reports how Anvisa directors inform their decisions. In a context of lack of reliable information, decisions are mainly based on how agents conceive the problems according to their worldviews, values, and principles. In other words, a policymaker's collection of beliefs and previous knowledge can act as vicarious information in decision-making contexts of ignorance – that is, of lack of grounded and relevant knowledge for the agents' decision on a given issue.

A different side of the concept of evidence as a tool to public policy brings us to the work of Koga, Viana and Marques (2020). The authors investigate the different uses and meanings of the Federal Government's Unified Registry for Social Programs (Cadastro Único) as an instrument or source of information for federal social program managers. They conclude that the Unified Registry, in its technical operations (stratification, creation of inclusion criteria, data crossing routines etc.), interacts with the application of concepts such as *family*, *income*, *poverty*, and *domicile*, among others. In other words, the technical manipulations of the Unified Registry affect and are affected by the semantics of social policies. Consequently, this instrument has a non-neutral use from the point of view of the narratives not only of social program managers but also of several other federal social policy stakeholders.

Santos, Silveira and Rocha (2020) exemplify the possibility of divergences in the use and interpretation of scientific evidence by various actors involved in a specific policy. In this case, disagreements were verified among the auditors of the Office of the Comptroller General (CGU), the managers of the Cartão Reforma program – whose purpose is to mitigate the qualitative housing deficit in Brazil – and other social stakeholders (contractors, governors, members of civil society etc.). Disagreements over which housing deficit indexes to use and how these indexes should support the allocation of public resources to the Cartão Reforma program were at the center of the disputes between CGU auditors and the managers of this program. The case illustrates that the cause of disagreement in the use of evidence may not lie in the *quality* of the evidence but in the conflicting views and interests of the stakeholders regarding the program. This is so because, in this case, the indexes used by auditors and managers were of equivalent quality, produced by an institution with a high technical and scientific reputation, the João Pinheiro Foundation (FJP). Discussions about this or that index, this or that methodology, can be a sort of *cover-up* for internal oppositions motivated by economic and political interests.

In their turn, Oliveira and Menke (2020), in a survey study with internal auditors of the CGU, found that scientific articles are not the most used type of information in the decisions made by the auditors. Such articles are considered of lesser relevance and, when applicable, are mainly used as methodological inspiration or external confirmation of data. A result corroborated more than once in research with the Brazilian federal bureaucracy (Enap, 2018) is the broader use of normative information (laws and formal rules) than scientific research results. The work of Oliveira and Menke (2020) found – although without elaborating on the argument – that, in the opinion of the target audience of the survey, academic studies may contain biases that could compromise the objectivity of audits.

Let us take one last example, hypothetical but plausible. Whether it is a policy manager working at the Central Bank of Brazil (BCB) or the National Treasury Secretariat (STN), responsible for designing policies to manage Brazil's public debt on a sustainable trajectory. It has a system of models of an accounting and econometric nature, which allows them to calculate the estimated trajectory of the public debt ratio as a proportion of the gross domestic product (GDP), given some parameters (for example, interest rates, exchange rates, estimated GDP growth rate, inflation etc.). Let us also suppose that in a given period, the manager runs their own calculations and concludes that the trajectory of the debt/GDP ratio is sustainable for the next twelve months. They consult the opinions of academics and fiscal policy experts and find that the results of their models converge with those opinions. Consequently, supported by these results and supported by external opinions, the manager decides not to change the current public debt management

policy since they deem having good reason to believe that said policy is on the right track.

In the example above, in a strict sense, the direct evidence, which serves as an instrument for the policymaker's decision-making, is constituted by the results of the policymaker's modeling system. However, it is easy to see that these results are not produced without the help of other information, such as macroeconomic parameters, model relationships, and coefficients, the construction of future scenarios for the relevant variables, the opinions of other agents etc. Of course, using this information involves a set of choices and auxiliary hypotheses that are not observable but are subject to a good deal of arbitrariness on the part of the analyst. The models themselves are built based on several pragmatic assumptions about the behavior of the public debt, in its various modalities, types of securities, indexers etc.

Therefore, in a strict sense, the choices and information that, one may say, surround and connect to the public debt equation system outputs are not evidence but instead could be more appropriately called *requirements*, *parameters*, or *subsidies* for the public debt management policy. This is the case of the opinions of some external agents (academics and fiscal policy experts), which act as checkpoints to fine-tune the model in several respects. Nevertheless, the example illustrates well two points to which attention is drawn in this chapter. The first one is that the evidence belongs to a set of choices and information – such as requirements, parameters, and functional expressions, amongst others – with varying degrees of formality and methodological rigor. This set constitutes such a unit that, *in a broad*, *derivative sense*, each element of this set can be called *evidence*. Secondly, the members of this set are held together by a backdrop of beliefs and practices shared by the community of analysts and managers – in this case, regarding how a policy of national public debt management is made – at the center of which is a conceptual, methodological and theoretical armor.

The examples above, taken from different policymaking contexts in Brazil, from different public policy fields and topics, and from different segments of the bureaucracy, highlight the variety of the use of evidence in its multiple types. The examples reveal different possibilities for using technical-scientific evidence according to the contextual framework that involves the decision-making agents.

Of course, isolated cases cannot provide statistical representativeness. Notwithstanding they at least indicate, among other things, that the rational-instrumental use of scientific evidence – as advocated by the traditional view of EBPs – is only one of the possible uses. There is a myriad of factors not directly related to methods of cognition of reality that naturally condition public policy decisions and that make the use of scientific evidence a much more complex task than simply

running a model or raising a set of numbers or quantitative data that indicate to the policymaker *what works*.

Finally, in none of the cases mentioned in this section is the use of evidence (scientific or otherwise) neutral or purely rational-instrumental, but is always conditioned by the purposes, worldviews, and interests of the various policy stakeholders.

Therefore, the examples in this section clarify certain features of the moderate model (variety of evidence, role of the stakeholder(s) as possible sources of evidence, complexity of a policymaker's decision-making structure, interpenetration of epistemological, political, and institutional/organizational conditioning factors). Thus, the cases also strongly suggest the partial and incomplete character of the traditional view of EBPs, marked by de-contextualized prioritization of scientific evidence, the merely instrumental character of evidence use, and assumed objectivity and political/ideological neutrality of scientific evidence.

7 FINAL REMARKS

In literature, several authors, for example, Oliver et al. (2014), complain about the fact that few studies provide clear definitions of *evidence*. Thus, it would be difficult to describe the role played by evidence and other factors that affect policymaking decisions. Now, these authors seem to demand a clear definition of evidence as a precondition for describing the role played by evidence in public policy decision-making. However, the perspective adopted in this chapter is different and, in a way, the opposite: evidence is defined from its concrete contexts of use, and *family resemblances* are established among the different types, sources, and uses of evidence. In other words, this text does not have as a starting point a prompt answer to the question: what is evidence? One obtains this answer after a process of conceptual clarification, in which the formulation of a so-called *moderate* epistemological model takes place. In this model, an analysis of the contextualized use of evidence in the clarifications and decisions of agents regarding public policies plays a key role.

The above-mentioned moderate epistemological model is open to a reasonable degree of rationality regarding cognition and political action on social processes through public policies. Moreover, the same model allows for various types of evidence and methods and requires special attention to the diversity of epistemological statuses of the areas of knowledge of public policies under consideration. However, the moderate character of the model is verified not only in its openness to plurality but also in its attention to the limits of knowledge of the contexts of action. This attention to the epistemological boundaries of the evidence used in public policy also lies at the heart of the *critical* character of the moderate model.

How evidence is defined and used depends on how the nature of social and public policy decision-making processes is perceived. This view introduces a kind of relativism to the concept of evidence, in contrast to the traditional view of EBP, which tends to *absolutize* or *reify* the concept of evidence. This double relativism, in turn, cannot be adequately understood without a contextual frame that encompasses the agent's decisions. The contextual frame refers to a pragmatic – that is, usage or action-related – element that is key to the moderate model. This frame defines a background made up of epistemological, political, and institutional factors within which a policymaker's decisions on the use of evidence occur. In other words, to use or not to use this or that evidence, as well as the weight that will be attributed, for example, to scientific evidence, will depend on the contextual decision framework of the agent, in which political, symbolic, and ideological factors will always be latent or explicitly present.

Finally, the criticism of the traditional view of EBPs, developed in this chapter and based on the moderate model, raises a red flag. The so-called traditional view increases the risk that EBPs become an ideological means for political and/or technocratic elites to impose their perspective on society as a whole about the relevant social problems and their solutions. Here we talk about the risk of losing the legitimacy of public policies in a democratic context. It is likely that the traditional view of EBP increases this risk since it tends to reify the concept of evidence and to overvalue the use of scientific evidence in a generally uncritical and decontextualized way.

REFERENCES

AMARA, N.; OUIMET, M.; LANDRY, R. New evidence on instrumental, conceptual, and symbolic utilization of university research in government agencies. **Science Communication**, v. 26, n. 1, p. 75-106, Sept. 2004.

BAMBERGER, M. Enhancing the utilization of evaluations for evidence-based policy making. In: SEGONE, M. (Ed.). **Bridging the gap**: the role of monitoring and evaluation in evidence-based policy making. Geneva: UNICEF, 2008. p. 120-142. Retrieved from: https://mics.unicef.org/files?job=W1siZiIsIjIwMTUvMDEvMzAvMDMvMTYvNDkvMjQ2L2V2aWRlbmNlX2Jhc2VkX3BvbGljeV9tYWtpbmcucGRmIl1d&sha=66f7484e16ed9da3.

BULLOCK, H.; MOUNTFORD, J.; STANLEY, R. **Better policy-making**. London: Centre for Management and Policy Studies, 2001.

CHERNEY, A. et al. Use of academic social research by public officials: exploring preferences and constraints that impact on research use. **Evidence & Policy**, v. 11, n. 2, p. 169-188, 2015.

CLOETE, F. Evidence-based policy analysis in South Africa: critical assessment of the emerging government-wide monitoring and evaluation system. **Journal of Public Administration**, v. 44, n. 2, p. 293-311, June 2009.

DAVIES, P. Is evidence-based government possible? In: ANNUAL CAMPBELL COLLABORATION COLLOQUIUM, 4., 2004, Washington, United States. **Proceedings**… 2004.

ENAP – ESCOLA NACIONAL DE ADMINISTRAÇÃO PÚBLICA. **Capacidades estatais para produção de políticas públicas**: resultados do survey sobre serviço civil no Brasil. Brasilia: Enap, 2018. (Cadernos Enap, n. 56).

FREIBERG, A.; CARSON, W. G. The limits to evidence-based policy: evidence, emotion and criminal justice. **Australian Journal of Public Administration**, v. 69, n. 2, p. 152-164, 2010.

FURTADO, B. A.; SAKOWSKI, P. A. M.; TÓVOLLI, M. H. (Ed.). **Modelagem de sistemas complexos para políticas públicas**. Brasilia: Ipea, 2015.

HACKING, I. The looping effects of human kinds. In: SPERBER, D.; PREMACK, D.; PREMACK, A. J. (Ed.). **Causal cognition**: a multidisciplinary debate. Oxford: Clarendon Press, 1995. p. 351-394.

HACKING, I. **The social construction of what?** Cambridge: Harvard University Press, 1999.

HOWLETT, M. Policy analytical capacity: the supply and demand for policy analysis in government. **Policy and Society**, v. 34, n. 3-4, p. 173-182, 2015. Retrieved from: https://doi.org/10.1016/j.polsoc.2015.09.002.

KOGA, N. M.; VIANA, R.; MARQUES, I. da C. Usos e significados do Cadastro Único para os programas sociais federais: fonte de evidências técnico-instrumentais ou retratos técnico-político-sociais? **Boletim de Análise Político-Institucional**, Rio de Janeiro, n. 24, p. 69-77, Nov. 2020.

KUHN, T. **A estrutura das revoluções científicas**. 7th ed. São Paulo: Perspectiva, 2003.

LATHAM, M. Myths of the welfare state. **Policy**, v. 17, n. 3, p. 40-43, 2001.

LEJANO, R. P. **Frameworks for policy analysis**: merging text and context. New York; London: Routledge; Taylor & Francis Group, 2006.

MARSTON, G.; WATTS, R. Tampering with evidence: a critical appraisal of evidence-based policy-making. **The Drawing Board: an Australian review of public affairs**, v. 3, n. 3, p. 143-163, 2003.

MOSELEY, A.; TIERNEY, S. Evidence-based practice in the real world. **Evidence & Policy**, v. 1, n. 1, p. 113-119, 2005.

MULGAN, G. Government, knowledge and the business of policymaking: the potential and limits of evidence-based policy. **Evidence & Policy**, v. 1, n. 2, p. 215-226, 2005.

NILSSON, M. et al. The use and non-use of policy appraisal tools in public policy making: an analysis of three European countries and the European Union. **Policy Sciences**, v. 41, n. 4, p. 335-355, 2008.

NUTLEY, S. Bridging the policy/research divide: reflections and lessons from the UK. In: NATIONAL INSTITUTE OF GOVERNANCE CONFERENCE, 2003, Canberra, Australia. **Proceedings**... 2003.

OLIVEIRA, T. C.; MENKE, W. B. Auditores internos da Controladoria-Geral da União: como atuam e que informações utilizam. **Boletim de Análise Político-Institucional**, Rio de Janeiro, n. 24, p. 103-114, Nov. 2020.

OLIVER, K. et al. A systematic review of barriers to and facilitators of the use of evidence by policymakers. **BMC Health Services Research**, v. 14, n. 2, p. 1-12, 2014. Retrieved from: https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-14-2.

OXMAN, A. D. et al. Support tools for evidence-informed health Policymaking (STP) 1: what is evidence-informed policymaking? **Health Research Policy and Systems**, v. 7, s. 1, p. 1-7, 2009. Retrieved from: https://health-policy-systems.biomedcentral.com/articles/10.1186/1478-4505-7-S1-S1.

PARKHURST, J. **The politics of evidence**: from evidence-based policy to the good governance of evidence. London: Routledge, 2017.

PINHEIRO, M. M. S. **Políticas públicas baseadas em evidências (PPBEs)**: delimitando o problema conceitual. Rio de Janeiro: Ipea, Apr. 2020a. (Texto para Discussão, n. 2554).

PINHEIRO, M. M. S. Políticas públicas baseadas em evidências: uma avaliação crítica. **Boletim de Análise Político-Institucional**, Rio de Janeiro, n. 24, p. 69-77, Nov. 2020b.

QUINE, W. O. Sobre o que há. In: RYLE, G. et al. **Os pensadores**: ensaios. São Paulo: Abril Cultural, 1985. p. 217-229.

SALTELLI, A.; GIAMPIETRO, M. What is wrong with evidence based policy, and how can it be improved? **Futures**, v. 91, p. 62-71, 2017.

SANDERSON, I. Evaluation, policy learning and evidence-based policy making. **Public Administration**, Oxford, v. 80, n. 1, p. 1-22, 2002.

SANTOS, M. M. dos; SILVEIRA, B. A.; ROCHA, E. F. da. Cartão Reforma: avaliação de políticas públicas através de evidências. **Boletim de Análise Político-Institucional**, Rio de Janeiro, n. 24, p. 91-101, Nov. 2020.

SOARES, M. K. Ignorância e políticas públicas: a regulação de cannabis medicinal no Brasil. **Boletim de Análise Político-Institucional**, Rio de Janeiro, n. 24, p. 57-68, Nov. 2020.

SOLESBURY, W. **Evidence based policy**: whence it came and where it's going. London: ESRC UK Centre for Evidence Based Policy and Practice, Oct. 2001. (Working Paper, n. 1).

STEVENS, A. Telling policy stories: an ethnographic study of the use of evidence in policy-making in the UK. **Journal of Social Policy**, v. 40, n. 2, p. 237-255, Apr. 2011.

UNITED KINGDOM. Cabinet Office. **Modernising government**. London: Cabinet Office, 1999a. (Cm, n. 4310).

UNITED KINGDOM. Cabinet Office. **Professional policy making for the twenty-first century**. London: Strategic Policy Making Team, 1999b.

UPSHUR, R. E. G.; VANDENKERKHOF, E.; GOEL, V. Meaning and measurement: an inclusive model of evidence in health care. **Journal of Evaluation in Clinical Practice**, v. 7, n. 2, p. 91-96, 2001.

VIEIRA, F. S.; SERVO, L. M. S.; PIOLA, S. F. Uso de evidências científicas na avaliação da incorporação de tecnologias em saúde no SUS: uma análise preliminar. **Boletim de Análise Político-Institucional**, Rio de Janeiro, n. 24, p. 49-56, Nov. 2020.

VON NEUMANN, J.; MORGENSTERN, O. **Theory of games and economic behavior**. Princeton: Princeton University Press, 1944.

WEISS, C. H. The many meanings of research utilization. **Public Administration Review**, v. 39, n. 5, p. 426-431, 1979.

YOUNG, K. et al. Social science and the evidence-based policy movement. **Social Policy and Society**, v. 1, n. 3, p. 215-224, 2002.

COMPLEMENTARY BIBLIOGRAPHY

PINHEIRO, M. M. S. et al. (Ed.). **Boletim de Análise Político-Institucional**, Rio de Janeiro, n. 24, Nov. 2020.