Paul Cairney, Professor of Politics and Public Policy, University of Stirling, p.a.cairney@stir.ac.uk

Palgrave Pivot, 2015, *The Politics of Evidence Based Policymaking*

Chapter 2

The Role of Evidence in Theories of the Policy Process

To paint an accurate picture of EBPM, I compare its ideal-type with more realistic accounts. This approach has a long history in post-war policy studies, in which we begin with the ideal-type of 'comprehensive' or 'synoptic' rationality to identify 'bounded rationality' in the real world. The links between older studies of rationality and new debates on EBPM are remarkably strong. They have also been given a new twist following major advances in research and information technology, which allow us to gather and exchange information in vastly superior ways than in the early post-war period.

Yet, these advances have not, and will not, solve the problem of bounded rationality. Nor do they allow us to identify an ordered process of decision-making, involving a 'policy cycle' with a series of stages, beginning with an evidence-based debate about policy problems and ending with an evidence-based evaluation of their solutions. Instead, a focus on rationality and stages prompts us to challenge the assumptions we make about policymaking – such as that it is driven by a small number of policymakers at the 'centre' – and identify a far messier and unpredictable process, in which many actors are involved, and the separation of stages (such as between policy formulation and implementation) is difficult to maintain.

To explain this argument in more depth, I draw on two literatures. The first focuses on the direct insights that policy studies provide to our understanding of EBPM. Much of this literature has been published in the UK and Australia, partly to reflect government trends towards the production of evidence-gathering centres which are expected to work more closely with policymakers. This literature is relatively simple to generate, since almost all of it contains the same basic keywords (such as evidence and policy) and/ or can be found by snowballing from initial texts. These studies highlight the role of the supply and demand for evidence, and the competition that scientists face when presenting evidence to policymakers. They suggest that, to be successful, scientific advocates may need to use persuasion and 'emotive appeals', and form effective alliances with other groups, to generate greater and sustained attention for their evidence.

The second draws insights from the broader policy theory literature, which informs the study of EBPM without making it the primary focus. Most studies identify the role of bounded rationality as a way to understand the psychology of policymaking; to argue that policymakers use imperfect, and often 'gut' or emotion-based, short cuts to gather information and make decisions. This takes place in a complex policy environment, prompting us to understand the rules, networks, and socioeconomic context underpinning policy decisions. This literature is more difficult for the non-specialist to *generate* using conventional searches, since there may be no direct reference to EBPM, and *understand*,

because, in many cases, theories have their own language and do not give a proper sense of how the insights from each study or theory relate to EBPM. Yet, understand it we must, since this literature represents a large part of the accumulated wisdom of policy studies and a way to better understand the role of evidence and policy.

In the penultimate section, I use this analysis to help us reconsider the value of a focus on rationality, stages and cycles. It is tempting to make use of the policy cycle, as a simple way to understand policymaking, compared to the policy theories that present a less orderly process in which it is difficult to engage. Yet, this would be a mistake, unless you come to see the cycle as a series of stages in which evidence-based policies can appear to go off course. In the conclusion, I identify three initial tenets of evidence based policy making, to help produce a more realistic description of how evidence is used in policymaking. This underpins the discussion, in chapter 5, of how evidence *should* be used.

Comprehensive and bounded rationality

The idea of comprehensive rationality is that it represents an 'optimal' policy process, at least when we make some, rather unrealistic, assumptions about who is involved, what they represent, and the best way to make policy. The idea of 'bounded rationality' is that we examine what happens when these assumptions or conditions are not met. For example, we initially assume that:

1. *The values of society are reflected in the values of policymakers*. There is a direct link between the policy preferences of the public and those of policymakers. In the real world, elected policymakers receive a limited amount of support from the public, and they try to satisfy many contradictory public preferences. Government is about making choices between competing aims, producing 'winners' and 'losers', and seeking to legitimise those choices. It is not about finding an optimal choice, based on indisputable evidence, which will satisfy everyone.
2. *A small number of policymakers control the policy process from its centre*. Instead, power is shared across many government departments, levels of government, and with a range of quasi-governmental and non-governmental actors (Cairney, 2015a). This insight has practical implications for scientists seeking to supply evidence to the most relevant policymaking venues, and normative implications when we consider who should control the policy process (chapter 5).

The key point is that, even if these assumptions were to hold, there would still be a further series of conditions that would have to be met to ensure a comprehensively rational process (Cairney, 2012a: 96):

3. *We can separate the values, required by policymakers to identify their aims, from the facts produced by organizations to assess the best way to achieve them*. In practice, people make empirical claims infused with their values. Consider extreme examples, in which people argue that the evidence exists to show that men are more intelligent than women and some races are demonstrably superior to others, more routine examples in which people use data to argue that a public service is in 'crisis', or

instances in which people combine facts and values to justify action: we talk about the evidence on problems when we think we have a duty to solve them (Cairney, 2015b). Further, no amount of empirical information can solve debates about the root causes of complex policy problems such as poverty. Facts and values are often hardest to separate when we evaluate the success and failure of policy solutions, since the measures used for evaluation are as political as any other part of the policy process (Cairney, 2012a: 39; McConnell, 2010; Marsh and McConnell, 2010). The gathering and presentation of facts is a political exercise.

4. *An organisation acts optimally by ranking its aims according to its leader's preferences and undertaking a comprehensive search for information*. In the real world, policymakers struggle to make choices between competing aims, and organisations are unable to gather comprehensive levels of information. In practice, policymaker attention lurches from one aim to another, they struggle to process information, and they make decisions in the face of great uncertainty. The injection of more evidence could help alleviate one of these problems but exacerbate another.

5. *Policy is made in a 'linear' way: policymakers identify their aims, the bureaucracy produces a list of all ways to deliver those aims, and the policymaker selects the best solution.* In practice, policymaking is much less ordered and predictable: policymakers often have unclear aims, policy solutions often exist before problems arise in the minds of policymakers, and policymakers often simply legitimise policies made in the past, or select solutions to problems to which they have paid little attention (Cohen et al, 1972).

This final condition – linear policymaking – represents a key part of the post-war policymaking literature. It became customary to identify a series of stages through which a policy might progress, from the initial decision to think about a problem to the point at which its success is evaluated:

- *Agenda setting*. Identifying problems that require government attention, deciding which issues deserve the most attention and defining the nature of the problem.

- *Policy formulation*. Setting objectives, identifying the cost and estimating the effect of solutions, choosing from a list of solutions and selecting policy instruments.

- *Legitimation*. Ensuring that the chosen policy instruments have support. It can involve one or a combination of: legislative approval, executive approval, seeking consent through consultation with interest groups, and referenda.

- *Implementation*. Establishing or employing an organization to take responsibility for implementation, ensuring that the organization has the resources (such as staffing, money and legal authority) to do so, and making sure that policy decisions are carried out as planned.

- *Evaluation*. Assessing the extent to which the policy was successful or the policy decision was the correct one; if it was implemented correctly and, if so, had the desired effect.

- *Policy maintenance, succession or termination*. Considering if the policy should be continued, modified or discontinued (Cairney, 2012a: 33).

Turning this process into the image of a policy cycle gives the impression that the process is continuous: the evaluation of past policy in one cycle often leads to agenda setting in another, as policymakers consider how to change or continue with decisions made in the past:

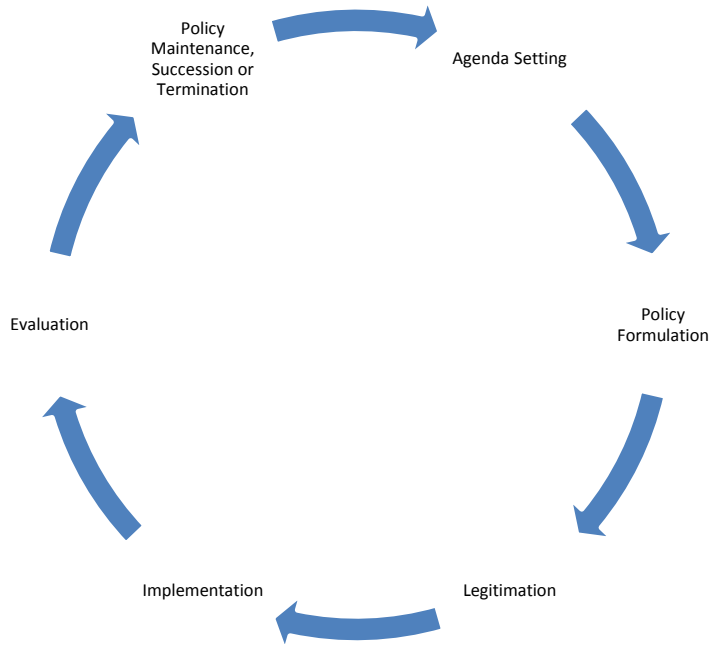

Figure 1: *a generic policy cycle* (Cairney, 2012a: 34)

The cycle image remains popular outside of policy scholarship, partly because it is a simple model that can understood by non-specialists, and it can be used by policymakers to describe and prescribe their work (although many different cycle images are used within government, and many do not describe stages - HM Government, 2014; Scottish Government, 2009). However, for most policy scholars and many policymakers, it represents a model that provides a misleadingly simple description of how policy is made (Cairney, 2014a; Lomas and Brown, 2009: 914). It is part of the ideal-type, to be contrasted with more realistic accounts. To continue with the cycle metaphor, modern theories describe something akin to a Spirograph of many interacting cycles, and portray multi-directional arrows linking each stage.

The problem, for scholars and practitioners, is that it is difficult to replace the simple metaphor with the complex picture. Modern theories describe a far messier policy process, and struggle to provide a simple message about how to understand policymaking and seek to influence it (Cairney, 2014a). Yet, this discussion of the ideal-type should help. It allows us to consider how policy is made in the real world, when our assumptions don't hold and

conditions are not met. If done in the right way, these limitations, when measured against an artificial standard, prompt us to think about what really happens and how policymakers and scientists should adjust. We identify 'bounded rationality'. Instead of being part of an 'optimal' process, policymakers use heuristics to gather information and seek 'good enough' solutions (Simon 1957: xxiv; 1976: xxviii; Cairney, 2012a: 97-8). Some of this process may involve seeking scientific evidence, some may be about other forms of evidence gathering (such as public consultation), and some involve using trial and error or tried and trusted methods. This process may, at times, appear to be orderly and go through certain stages, only to turn into an unpredictable process in which many cycles and stages (referring to many problems and solutions) interact.

The basic idea, that organisations cannot generate all relevant information, and policymakers cannot process all of the information available to them, underpins the study of public policy. It was the staple of key post-war debates about the 'incremental' nature of policymaking, when policymakers limit their search for evidence to politically feasible policy options (which do not diverge too much from the status quo), make policy in a trial-and-error way, gathering evidence as they go, in a series of non-radical steps, and perhaps measure 'good' policy in terms of the level of consensus it generates rather than simply in relation to evidence (Lindblom, 1959; 1964; 1979; see chapter 5). It is also the starting point to almost all major contemporary policy theories, which explore what happens when boundedly rational policymakers interact with their environments (Cairney and Heikkila, 2014: 370).

EBPM: a new lease of life for comprehensive rationality

Policy scholars have begun to identify a worrying trend in the new EBPM literature: the old notion of comprehensive rationality, used to demonstrate what does *not* and *could not* happen in policymaking systems, has received a new lease of life following the rise of the EBPM agenda in countries such as the UK and Australia. The problem is that many new scholars, without a background in policy studies, refer to something very close to comprehensive rationality *uncritically*, seeing it as an ideal, and bemoaning real world policymaking when it does not live up to it. Instead, we should be using the concept of bounded rationality, to highlight the limits of a naïve attachment to EBPM, and to consider how to act accordingly.

Part of the problem is that comprehensive rationality remains an attractive prospect for scientists and, in many ways, policymakers. Boaz et al (2008: 242) describe 'rational analysis' as 'comforting to researchers and, sometimes, to decision makers'. Botterill and Hindmoor (2012: 367) argue that EBPM, as a 'political slogan' and 'academic movement', shares comprehensive rationality's focus on separating facts and values, "to anchor policy-making in evidence and to deliver 'what works' unsullied by ideology or values considerations" (see also Brown, 2013: 3-4; Sanderson, 2002: 5; 2009: 705; 2011: 61; Williams and Glasby, 2010: 98; Australian Bureau of Statistics, 2010; Smith, 2013: 4; Marston and Watts, 2003: 147). This reflects a wider sense that many evidence-based decisions, such as on the allocation of healthcare resources, should be taken out of the hands of politicians driven primarily by the need to remain popular (and allegedly too 'cowardly' to make the right choices – BBC News, 2014).

An attachment to comprehensive rationality may also be based on significant advances in scientific practice, knowledge and systematic review, and the hope that EBPM can help overcome limitations in government (Botterill and Hindmoor, 2012: 371). Boundedly rational policymakers, who can only gather so much information, can be aided by scientists with far greater capacity. In that context, if there remains a gap between hope and reality, it 'can be attributed to pathologies of the political process; the realities of which are that sound evidence is often pushed to one side … what is missing is not the evidence but the institutional capacity and political will to act upon that evidence' (2012: 368; see also Monaghan, 2011: 30-1). Such a conclusion allows us to blame politicians for general failure and explain specific successes with reference to exceptional individuals in the scientific profession. This is a mistake, based on insufficient knowledge of the policy process. Instead, we should focus initially on problems with the supply of, and demand for, evidence.

Problems with the supply of evidence

Botterill and Hindmoor (2012: 370) argue that scientists face many of the problems as policymakers. They cannot separate facts from values and interpretation, their research resources are limited (and often 'contracted out' to policymakers), and any attempt 'to collect and communicate evidence to policy-makers involves distorting that evidence through simplification' (2012: 368; Pawson, 2006: 8-10). Further, they have no 'unique claim to objectivity' (Sanderson, 2002: 6; Ginsburg and Gorostiaga, 2001; Petticrew and Roberts, 2006: 5).

These limitations are often masked with an appeal to a scientific consensus, based on a hierarchy of evidence which favours randomised control trials (RCTs) and systematic review (Botterill and Hindmoor, 2012: 367-8; see also Nutley et al, 2007; 2013; McCaughey and Bruning, 2010; Neylan, 2008; Smith, 2013; Yeomans, 2013; Greenaway, 2008; Thom, 1999: 11-2; 2005; Boaz et al, 2006). Discussions which would be hotly debated within a discipline – particularly when complex issues defy simple cause and effect - become 'self-evident' facts when presented to policymakers, as part of a process in which people use evidence to exercise power (Botterill and Hindmoor, 2012: 371-2). While this public front to present a scientific consensus may be powerful and appropriate in some cases, where the evidence is relatively clear (on, for example, the links between smoking and illness, or evidence of climate change), it is harder to sustain in more complex and nuanced cases where singular 'root causes' are more difficult to identify and policy solutions are hotly contested (for example, the identification of inequalities).

These problems of exaggerating consensus are multiplied when we consider the wide range of ways in which scholars disagree about what they are doing, how they should do it, and how science should contribute to policy (Boaz, 2008: 239). They are exacerbated further when: problems cross-cut traditional policy areas and disciplinary boundaries (Head, 2008: 4; Sanderson, 2002: 15; Downe et al, 2012); the evidence base is patchy or contested (Head 2010: 78; 87; Sanderson, 2011: 69; Taylor, 2013: 12-3; Thom, 1999: 129); and, the evidence comes from abroad, often in an unfamiliar or unsystematic way (Ettelt et al, 2012).

Further, not all academics favour the same hierarchy of evidence (Pawson, 2006: 52-4), and some encourage the wider generation of knowledge from practitioners, service users, interest groups, and public 'deliberation' to recognise, for example, the distinction between effective and appropriate policies (Williams and Glasby, 2010: 97; Petticrew and Roberts, 2006: 57-9; 68; see also Axford and Pawson, 2014). So, the appearance of an evidence-policy gap is caused partly by a biased and romantic account of the supply of 'the evidence', in which scientists provide an objective account of a problem that cannot be ignored, and a consensus on how it should be solved. In practice, the evidence is contested, and the actors who identify problems may not be in a good position to supply the solutions.

Problems with the demand for evidence

Further problems arise when the supply interacts with the demand for evidence. *At times*, EBPM appears to be supported by policymakers in broadly the same way as many scientists. Politicians may try to depoliticise issues by portraying them as technical and/ or resolvable via research and expertise (O'Brien, 2013: 4; Wood, 2015). Note the 'magic' or 'silver bullet' metaphor, to highlight a demand for a killer piece of information to remove the need for political choice (Cartwright and Hardie, 2012: 73-4). Further, some governments, including the UK, seem to privilege particular forms of evidence when providing major funding for academic/ scientific centres, or government units, to determine 'What Works' (Boaz et al, 2008; Head, 2010a: 79; Solesbury, 2001; Haynes et al, 2012; Cameron et al, 2011: 431; for critical reflections, see Parsons, 2002; Sanderson, 2002; Boswell, 2009: 4).

Yet, even if they represent an interested audience, policymakers may not understand or pay attention to 'the evidence' in the same way as the scientists providing it (Botterill and Hindmoor 2012: 369, Head, 2010a: 87; Bambra, 2013; Sutherland et al, 2013; Sanderson, 2009: 703; Boswell, 2009: 33; Ettelt et al, 2012: 493; Rich, 1997; Bédard and Ouimet, 2012; Stoker, 2010: 54). For scientists, 'the word evidence is synonymous with research', but for policymakers such as civil servants, it is 'more synonymous with data, analysis, or investigation'; 'evidence' will include 'gray literature, raw data', advice from experts, lessons from other governments, public opinion (Lomas and Brown, 2009: 913) and, in some cases, anectodal evidence of success. This problem of disconnect is compounded when, for example, policymakers are not involved in the evidence gathering process, or scientists focus on one aspect of a multi-faceted political problem (Petticrew and Roberts, 2006: 29-33; Cartwright and Hardie, 2012: 12).

More generally, the problem is compounded by bounded rationality and politics. The cognitive limits of policymakers would be a limiting factor even if they enjoyed the sort of time and space, to reflect on the nature and implications of evidence, which we associate with academics. Yet, the political process encourages them to make decisions more quickly, in the face of uncertainty, while their attention tends to lurch, rather unpredictably, from issue to issue. Consequently, their demand for information may be unpredictable, and their ability to devote sufficient time, to understand the evidence, is very limited. Crucially, *they still make decisions*. This kind of behaviour may be anathema to academics who enjoy the privilege of time. Overall, the disconnect between demand and supply can produce a range of responses

with two extremes: at one, policymakers seem to ignore or react inadequately to the cumulative wisdom of scientists; at the other, they pay disproportionate attention to limited information and act before the evidence is clear.

The competition for policymaker attention

Scientists also compete with many other actors to attract the attention of policymakers. *At best*, scientific evidence is one of several relevant sources of knowledge for policymakers. When policymakers want to know 'what works' they refer to what is feasible politically at least as much as the 'technical' feasibility and effectiveness of a policy solution. When they use 'knowledge', it includes their own knowledge of the policymaking system, as well as the 'practical wisdom' of their advisers and colleagues, the professional and 'hands on' knowledge of practitioners, and the insights of service users (Head, 2008: 6; 2010: 87; 2013: 397). *At worst*, some policymakers may be 'populist and anti-intellectual', and others may only demand information to support a policy decision already made (Head, 2010a: 81; 84; Baggott, 2010; Boswell, 2009; Naughton, 2005; Stevens, 2007; Sanderson, 2009: 703; 2011: 61-2). They may also look elsewhere for information – particularly when the issue is salient, new or unpredictable, and when they feel the need to make decisions quickly in the face of uncertainty (Head, 2010a: 81; 2010b: 172).

Somewhere in the middle of these best and worst case scenarios, we find that policymakers treat 'rational policy analysis' as one of many ways 'of telling a story alongside all the other stories in a department' (Rhodes, 2013: 486). Actors may express an attachment to the idea of a predominantly 'evidence based' process, but recognise that the system in which they operate is not always conducive to it.

'Comprehensive EBPM' exaggerates the evidence-policy gap

Overall, this literature suggests that the appearance of an evidence-policy gap is exaggerated by focusing on one type of EBPM image, in which the unequivocal evidence comes first and we bemoan a lack of political will or the inability of policymakers to act accordingly. The gap will not seem as wide if we recognise the limits to EBPM, and the policy process may not seem as 'irrational' if we generate a more sophisticated understanding of it.

To this end, it is important to recognise the many other legitimate functions of research and evidence: to inform solutions to a problem identified by policymakers; as one of many sources of information within policy networks; as a resource used by actors, with entrenched positions, to bolster their case; as a tool of government, to show it is acting; and, as a source of 'enlightenment', shaping how people think over the long term (Weiss, 1979). Evidence may be used to help clarify the aims of policymakers, measure how well policy is working, evaluate pilot projects that may be rolled out nationally, support the roll out of pilots as 'prototypes' or beacons of 'good practice', or gather evidence to support performance management (Sanderson, 2002: 9-10; 13; Geyer, 2012). It may be used by governments to legitimise their activities (Sanderson, 2002: 3-5; Monaghan, 2011: 30-1); to make them seem more authoritative or credible (Boswell, 2009: 7-8; 25; 43-5). In each case, it would be naïve to think that the evidence could ever speak for itself or that its producers 'control how their

ideas are interpreted, modified and used by others', particularly when issues are salient (Head, 2013: 397; Monaghan, 2011: 2-4; 37-8). Rather, this is a political process, in which each policy made directly on the basis of research can be seen as a victory, instead of viewing every evidence-policy gap as a defeat.

EBPM and policy theory: psychological and environmental explanations

Scientists may provide important policy-relevant information but, if they want to influence how that information is used, they need to know how the policymaking process works. If they have greater knowledge of how policymakers think, and how they operate within a wider complex system, they have a greater chance of being able to intervene in the right place, at the right moment, to influence how much attention their evidence receives, and how it is used by other actors. Policy theory can help.

Policy theory insights are based on the study of boundedly rational policymakers within specific policy 'environments' (Cairney, 2012a; Cairney and Heikkila, 2014; Sabatier and Weible, 2014). A focus on policymakers draws on insights from psychology. A focus on policy environments is necessary to consider what factors influence how people make decisions and what is the effect of those decisions. The choices of policymakers take place within institutions and networks, are influenced by policy context and events, and should be understand through the lens of the beliefs of policymakers and other actors. In some cases, we describe these processes as 'complex', which can just mean complicated, or refer to complex policymaking systems with specific properties (Cairney and Geyer, 2015). Combined, we may focus on the actions of individual policymakers but recognise the factors that constrain their ability to deliberate and make choices.

The psychology of policymaking

Our aim is to identify how policymakers interpret rules and adapt to their environment when working with others within organisations, groups and coalitions. To know why people make decisions, we need to know how they think before they act. We need to know how they process and interpret information, using a combination of analytical techniques and emotional responses. We need to know how they align the information they receive with their enduring beliefs about how the world works (and should work). This takes place, for example, during a process of agenda-setting characterised by 'two key statements' (Cairney, 2012a: 183):

- There is an almost unlimited amount of policy problems that *could* reach the top of the policy agenda. Yet, very few issues do, while most others do not.
- There is an almost unlimited number of solutions to those policy problems. Yet, few policy solutions will be considered while most others will not.

Most policy theories are based on bounded rationality, highlighting the important point that people make decisions – to pay attention to some problems and consider a small number of solutions - in a small amount of time despite high uncertainty and ambiguity. Yet, the term 'bounded rationality' often seems insufficient because it could be little more than a truism: people do not have the time, resources and cognitive ability to consider all information, all possibilities, all solutions, or anticipate all consequences of their actions, so they use

informational shortcuts or heuristics to produce what they may perceive to be good-enough decisions (Simon, 1976: xxviii).

'Bounded rationality' perhaps suggests that people may have limited cognitive capabilities but are still goal-oriented and take the time to get decisions right; they deal with uncertainty by trying, as far as possible, to articulate their values, rank their most important policy problems, and seek evidence for the right kinds of solutions. Yet, people also make decisions quickly, often based on emotional shortcuts to make quick judgements with limited information. Kahneman (2012: 20) famously describes two types of thinking ('fast and slow'): '*System 1* operates automatically and quickly, with little or no effort and no sense of voluntary control. *System 2* allocates attention to the effortful mental activities that demand it, including complex computations' (compare with Haidt, 2001: 818 on 'intuitive system' and 'reasoning system').

These insights are an important part of many policy studies, combining a focus on bounded rationality with 'rapid, gut-level, emotion-laden cognition' (Lewis, 2013: 1). Lewis (2013: 4; 7) argues that 'fast' thinking is 'typically where the action is' because people tend to conserve 'our limited amount of attention and cognitive processing capabilities for the few activities we currently view as most essential' and rely on 'autopilot' whenever emotions are heightened. The main effect is a series of biases related to cognitive shortcuts which develop over time as people learn from experience, including:

- the 'availability heuristic', when people relate the size, frequency or probability of a problem to how easy it is to remember or imagine
- the 'representativeness heuristic', when people overestimate the probability of vivid events
- 'prospect theory', when people value losses more than equivalent gains
- 'framing effects', based on emotional and moral judgements over well thought out preferences
- confirmation bias
- optimism bias, or unrealistic expectations about our aims working out well when we commit to them
- status quo bias
- a tendency to use exemplars of social groups to represent general experience; and
- a 'need for coherence' and to establish patterns and causal relationships when they may not exist (2013: 7).

Drawing on Haidt (2007; 2012), Lewis (2013: 9-10) discusses the equivalent of fast thinking when making *emotional or moral judgements*. People draw quickly on 'moral foundations' related to caring for the vulnerable, punishing cheating, rewarding loyalty, respecting authority, and protecting families and other social groups. This kind of thinking could help explain how policymakers interpret certain kinds of evidence, when, for example, they often seem impervious to persuasion, or they have the motivation to select only certain kinds of solutions when their attention lurches to problems (2013: 19).

Decisions are also influenced by *familiarity or processing fluency*; with the ease in which policymakers process information (Alter and Oppenheimer, 2009: 220, referencing work on

the ‘availability heuristic’ – Tversky and Kahneman, 1973; Schwartz et al, 1991; Schwartz, 2004). They may pay more attention to an issue or statement if they already possess some knowledge of it and find it easy to understand or recall, and may place more value on things they find familiar, even if the less familiar alternative is otherwise identical (Alter and Oppenheimer, 2009: 221-2; 2008: 990). This is a crucial point when we consider that policymakers have too many problems to pay attention to, too many solutions to consider, and too many choices to make, based on more information than they can process. Fluency informs how policymakers restrict their search for information, to reduce choice down to a small number of manageable options.

Overall, ‘bounded rationality’ suggests that people will use short cuts to information, and pay more attention to some problems and solutions than others. Additional concepts describe *particular* short cuts to explain why *certain* issues receive more attention. ‘Social intuitionism’ (Lewis, 2013) points to emotional, moral and ‘gut’ decisions, while processing fluency identifies the importance of issues that are already familiar and seem more concrete or closer to home. These thought processes can be manipulated, to attract attention and potential agreement, from the simple manipulation or repetition of texts and images, to the use of ‘priming’ messages to influence recall, and presenting concrete versus abstract images of problems (Alter and Oppenheimer, 2009: 227; 2008: 166). Persuasion strategies may be effective not only because they relate to people’s beliefs, interests or moral and emotional judgements, but also because they can be processed more easily.

In such cases, ‘the evidence’ may seem secondary to the ways in which policymakers react to it. They may be receptive not only to particular kinds of evidence – to address the problems to which they pay most attention, and provide solutions consistent with their beliefs or existing knowledge – but also particular ways in which the evidence is ‘framed’, such as to appeal to the emotions and the familiar (Dearing and Rogers, 1996: 1; Baumgartner and Jones, 1993: 11-2; Kingdon, 1984: 3–4; Cairney, 2012a: 183).

The policy environment

This ‘fast and slow’ thinking takes place in a policy environment which constrains some choices and facilitates others. Broadly speaking, policy theories identify the role of policy environments when they conceptualise the relationship between five key elements of the policy process.

First, they identify a wide range of actors using evidence, making choices and influencing choice. Actors can be individuals or collectives, and collectives can range from private companies to interest groups to governments bodies (Weible, 2014). A trend in the literature, in the past three or four decades, is to reflect on a broad shift from centralized and exclusive policymaking towards a more fragmented system with a large number of policy participants (Jordan, 1981: 96-100; Rhodes, 1997; Bache and Flinders, 2004a; 2004b). Issues which were once ‘quietly managed by a small group of insiders’ have now become ‘controversial and politicized’ (Heclo, 1978: 94–7). This challenges the ideal-type image of EBPM. A focus on the bigger picture shifts our attention from evidence used by elected policymakers at the ‘top’

to its use by a wide range of actors in a multi-level policy process. It also reminds scientists that they are competing with a wide range of actors to present evidence in a particular way to secure a policymaker audience.

Second, they identify 'institutions', defined as the rules, norms, practices and relationships that influence individual and collective behaviour. Rules can be formal and widely understood, such as when enshrined in law or a constitution, or informal and only understood in particular organisations. Institutions at one level (e.g. constitutional) can also shape activity at another (e.g. legislation or regulation), establish the types of venue where policy decisions are made, and the rules that allow particular types of actors or ideas to enter the policy process (Ostrom et al, 2014; Pierson, 2000). There are many different institutions within governments and government departments, each providing different incentives, to policymakers or organisations, to seek and engage with particular sources of evidence (Cairney, 2012a: 77; Boswell 2009: 11-6; Boaz, 2008: 243). Support for particular evidence-based solutions may vary according to which department or unit takes the lead and how it understands the problem (Cairney et al, 2012: 43; Boswell, 2009: 16).

Third, most theories focus on the role of 'policy networks' ('subsystems'),[1] defined as the relationships between actors responsible for policy decisions and the 'pressure participants' such as interest groups, or other types or levels of government, with which they consult and negotiate (Jordan et al, 2004). To some extent, the development of networks follows government attempts to deal with complexity. To address the sheer size of their responsibilities, governments divide them into broad sectors (such as health or education) and more specialist subsectors (such as tobacco or compulsory education). Senior policymakers delegate responsibility to bureaucrats, who seek information and advice from groups. Groups exchange information for access to, and potential influence within, government. The resulting relationship can be based on the need to specialise: 'issues that are highly complex … require long-term commitment and specialization and partitioning of responsibilities' (Weible et al, 2012: 6). Or, some networks may be more exclusive than others because bureaucracies and other public bodies have operating procedures that favour particular sources of evidence and some participants over others (Cairney, 2012a: 178). For example, a common complaint in the 1970s and 80s was that anti-smoking groups were marginalised by governments in favour of the tobacco industry; now, the reverse is often true (Cairney et al, 2012: 214).

Fourth, theories identify the role of 'ideas', as a very broad term to describe ways of thinking, and the extent to which they are shared within groups, organisations, networks and political systems. It can refer to three intertwined processes. First, an idea can be the proposed solution to a policy problem ('I have an idea'). Second, shared ideas – as beliefs, knowledge, world views, and language - appear to structure political activity when they are almost taken for granted or rarely questioned – as 'core beliefs', 'paradigms', 'hegemony', and 'monopolies of understanding' (Cairney and Heikkila, 2014: 365). Most studies examine how they underpin discussions in particular fields, such as healthcare, while some examine system-wide beliefs

[1] See Cairney (2012a: 179) on the use and meaning of many network terms, such as 'policy communities'. The term 'subsystem' is used more in US theories.

on, for example, the importance of economic growth (Hall, 1993; Cairney and Weible, 2015). Third, persuasion, through the manipulation and selective presentation of information, can be used to prompt actors to rethink their beliefs. Overall, well-established beliefs provide the context for a consideration of new evidence; new evidence on, for example, the effectiveness of a policy solution has to be accompanied by successful persuasion to ensure that it is considered properly.

Fifth, they conceptualise the role of context and events. Context is a broad category to describe the extent to which a policymaker's environment is in her control or how it influences her decisions. It can refer to the often-changing policy conditions that policymakers take into account when identifying problems and deciding how to address them, such as a political system's geography, demographic profile, economy, mass attitudes and behaviour (Cairney and Heikkila, 2014: 365). It can also refer to a sense of policymaker 'inheritance' - of laws, rules, institutions, programs, and commitments – when they enter office (Rose, 1990). Events can be routine and anticipated, such as elections, or unanticipated incidents, including social or natural crises or major technological change (Weible, 2014). For example, the role of 'focusing events' (Birkland, 1997) or apparent social or economic 'crises' can prompt lurches of attention from one issue to another, and some forms of evidence can be used to encourage that shift.

Combining psychological and environmental explanations

Policy theories can be used to conceptualise the use of information, by boundedly rational policymakers, adopting a range of informational shortcuts (a mix of 'fast' and 'slow' thinking), in a large, messy policy process. In each case, the picture is far removed from the idea that 'the evidence' has a direct input to a small number of comprehensively rational policymakers in a clearly defined policy process. However, policy theories deal with the role of psychology in different ways. For example, some may 'zoom in' to focus on the behaviour of key policymakers. They may seek to 'get into the heads' of policymakers, to use qualitative methods to explore how and why they make particular choices. Other accounts may ascribe the same basic thought processes to a large number of actors, to allow them to 'zoom out' and situate such action within a complex policymaking system over which policymakers have limited control (Cairney, 2012b: 124-5; Geyer and Rihani, 2010).

EBPM: combining insights from multiple theories of the policy process

Policymakers have to make decisions in the face of uncertainty. No amount of available information or evidence can settle the matter for them. Rather, they decide who, and what information, to trust. They also make decisions in the face of ambiguity, which relates to the way in which the problem can be understood. People can entertain a large number of ways to understand or think about the same issue, and, since they cannot analyse all issues simultaneously, their attention can lurch quickly from one to another. Consequently, a large part of the policy process regards the use of persuasion to encourage people to think about issues primarily in terms of their positive or negative aspects, or to shift attention to one at the expense of the other (Zahariadis 2014, Dearing and Rogers, 1996: 1; Baumgartner and Jones,

1993: 11-2; Kingdon, 1984: 3–4; Cairney, 2012: 183). Policy theories conceptualise a wide range of aspects of this process, from the use of vignette studies to explain bursts of change following key decisions, to the long term analysis of relatively stable environments in which policymaking takes place.

Multiple streams analysis

Kingdon's (1984) focus is on the interaction between two kinds of ideas: the type of policy solution that could draw attention and catch-on very quickly, and the established set of beliefs in a policy network that would slow its progress. He argues that the notion of a new body of evidence or policy solution providing 'an irresistible movement that sweeps over our politics and our society, pushing aside everything that might stand in its path' is misleading because it ignores the conditions that have to be satisfied – during a brief 'window of opportunity' – before a policy will change significantly. Three separate 'streams' must come together at the same time:

- *Problem stream – attention lurches to a policy problem*. Only a tiny fraction of problems receive policymaker attention. Getting attention is a major achievement which must be acted upon quickly, before attention shifts elsewhere. This might be achieved by demonstrating that a well thought out solution already exists.
- *Policy stream – a solution to that problem is available*. While attention lurches quickly from issue to issue, viable solutions involving major policy change take time to develop. Kingdon describes solutions in a 'policy primeval soup', evolving as they are proposed by one actor then reconsidered and modified by a large number of participants, and a process of 'softening', as some issues take time to become accepted within policy networks. To deal with the disconnect between lurching attention and slow policy development, actors such as 'policy entrepreneurs' develop widely-accepted solutions in anticipation of future problems, then find the right time to exploit or encourage attention to a relevant problem (note the phrase 'solutions chasing problems').
- *Politics stream – policymakers have the motive and opportunity to turn it into policy*. They have to pay attention to the problem and be receptive to the proposed solution. They may supplement their own beliefs with their perception of the 'national mood' and the anecdotal feedback they receive from interest groups and political parties. In many cases, only a change of government may be enough to provide that motive.

Government attention may lurch quickly to a problem, but a feasible solution, acceptable to enough people in the policy network, takes much longer to produce, then longer still to be taken forward by government. Multiple streams analysis is one of several theories that highlight the importance of time. The production of a successful evidence-based solution may take years or even decades to be accepted within a policy community, and it may be longer before policymakers have the motive and opportunity to adopt it. The time it takes for policy to change may seem like an eternity for advocates in the middle of policy struggles, but would be regarded as commonplace to policy scholars.

Kingdon's analysis is also useful to reinforce the distinction between two kinds of evidence-based activity relating to: the size of the problem (for example, the number of smokers and the link between smoking and ill health); and, the effectiveness of the solution (for example,

the effect of higher taxes and health warnings on consumption). In each case, the use of evidence can differ markedly. For example, when defining problems, policymakers may ignore epidemiological evidence for years, only to shift their focus and pay disproportionate attention – often when the evidence itself has changed little or not at all. Or, when considering solutions, the evidence of the effectiveness of an intervention competes with beliefs about their feasibility and appropriateness. Therefore, the argument that policymakers ignore the evidence is too simple, and takes no account of the different ways in which people consider evidence in different situations.

Punctuated equilibrium theory

Punctuated equilibrium theory (Baumgartner and Jones, 1993; 2009; Baumgartner et al, 2014) highlights two main effects of bounded rationality. First, issues are subject to 'parallel' and 'serial' processing: most policy is processed by government simultaneously in a large number of small and specialist subsystems, which address issues at a level of government not particularly visible to the public, and with minimal involvement from senior policy makers. Only some issues are dealt with, sequentially, at the 'macropolitical' level (True et al, 2007: 158–9). Second, policymakers ignore most issues and promote relatively few to the top of their agenda.

This lack of attention to issues helps explain why most relationships within subsystems, and policies, may not change very often. Policymakers and certain groups develop a 'monopoly of understandings', in which there is one dominant way to understand a problem, and only certain groups have the knowledge and expertise to make a regular contribution. Change can happen when actors within subsystems receive new evidence and reconsider their views, but it is not inevitable or a routine occurrence. There is also the constant *potential* for 'macropolitical' attention to lurch, and for these intense periods of attention to destabilise relationships and prompt new ways to frame policy problems. It can happen when excluded groups engage successfully in 'venue shopping'; to challenge a monopoly in one venue (such as a government department) by seeking an audience in another (such as a legislature, the courts, or other type or level of government). Yet, policymaking can remain stable for extended periods before this occurs.

Again, this image of time contrasts with the idea of a killer piece of evidence having an instant impact. Subsystems can be a source of stability, power and policy continuity for decades. In this context, actors use evidence as a resource, to frame policies in a way that supports or challenges often-well-established relationships within government. Framing is one part evidence and one part emotional appeal, and our focus is on the *use*, rather than the *properties*, of evidence (True et al., 2007: 161).

The social construction of target populations

Policymakers may reinforce quick, emotionally biased, judgements with selective information to 'institutionalize' their understanding of a policy problem and its solution. For example, 'social construction theory' examines policy design in relation to 'target' groups and populations - the good groups entitled to rewards and the bad groups deserving of

burdens or punishments (Schneider and Ingram, 1997; Schneider et al, 2014). The focus is on agenda setting – framing, assigning values, and using ideologically driven and emotional characterizations of people and problems: 'Likes and dislikes are not the result of individual or collective reason and deliberation but mainly the product of emotion and heuristics … judgments begin with emotional reactions … and reason is used mainly to justify initial emotion responses' (Schneider and Ingram, 2014, drawing directly from psychologists such as Haidt, 2001[2]; 2012).

A key aim is to examine the effect of policy design, in the past, on current debates. For example, a sequence of previous policies based on a particular framing of target populations may produce 'hegemony', when the public, media and/ or policymakers take for granted, and rarely question, that framing. Policy designs based on emotionally-driven thinking become hegemonic because they are 'automatic rather than thought through'; as a 'decision heuristic', an emotional assignment of 'deservingness' is 'easy to use and recall and hard to change' (2014).

Past policy, based on this thinking, represents the main context for current policymaking. The distribution of benefits is cumulative, influencing future action by signalling to target populations how they are described and will be treated. For example, older people may be favoured by spending programmes and given great incentives to engage regularly in politics, and both factors reinforce each other. Social constructions are difficult to overcome, since policy and strategy may reinforce hegemony continuously, based on a dominant interpretation of social groups and how to treat them (Pierce et al, 2014). Some, particularly well-resourced, groups can challenge how they are categorised, but this may take decades in the absence of a major external event, such as an economic crisis or game-changing election, perhaps exploited by 'entrepreneurs' to change the way that policymakers and the public view particular groups (Schneider and Ingram, 2005: 444; Pierce et al, 2014).

This is the context in which evidence is received favourably or rejected. Indeed, a common concern for campaigning groups, in areas such as welfare reform and criminal justice, is that they have a choice between remaining on the fringes of policy debate, to stick to their principles about how policy problems should be understood and addressed, or accept the agenda of government, which characterises populations in a particular way, to have a better chance of influence. We move from the production and sharing of evidence to the need to frame the evidence in a way that is attractive and acceptable to policymakers.

The narrative policy framework

The narrative policy framework examines the role of stylised accounts of the origins, aims and likely impact of policies. It focuses on perception and the social construction of problems to 'create different policy realities'. Narratives are used strategically to reinforce or oppose

[2] Haidt (2001: 814) draws on the idea of intuitionism (people grasp moral truths as a form of perception, not reflection) to suggest that 'moral reasoning is usually an ex post facto process used to influence the intuitions (and hence judgements) of other people'; one has an instant gut response to certain issues and 'when faced with a social demand for a verbal justification, one becomes a lawyer trying to build a case rather than a judge searching for the truth'.

policy measures. Each story has a setting, characters, plot and moral. Narratives can be compared to marketing, as persuasion based more on appealing to an audience's beliefs than the evidence. People will pay attention to certain narratives because they are boundedly rational, seeking shortcuts to gather sufficient information – and prone to accept simple stories that confirm their biases, exploit their emotions, and/ or come from a source they trust (see Stone, 1989; 2002).

McBeth et al (2014) identify groups competing to present the most compelling narrative within subsystems, and 'macro level' institutions, in which successful narratives become embedded in the culture of policy systems. Context is important, as the factors that actors have to account for when constructing narratives ('legal and constitutional parameters, geography, scientific evidence, economic conditions, agreed upon norms'), and compared to the 'props' or setting for a play that can be taken for granted or, at times, dominate attention. Events are treated primarily as resources, used to construct narratives and apportion blame. The emphasis is on persuasion – in the context of uncertainty, ambiguity and the role of 'fast and slow' thinking – rather than the 'objective' use of evidence.

The advocacy coalition framework

The 'advocacy coalition framework' (ACF) suggests that boundedly rational individuals 'simplify the world through their belief systems', people engage in politics to turn their beliefs into policies, and they form coalitions with people who share their beliefs (Jenkins Smith et al 2014). A large number of actors with similar beliefs become part of the same 'advocacy coalition' – a metaphor to describe a 'non-trivial degree of coordinated activity' (Sabatier, 1988: 139) and opposition to the beliefs and policies of competing coalitions (Sabatier and Jenkins-Smith, 1993). There are three main types of belief. 'Core' are fundamental and, like a religious conversion, unlikely to change in the studied time period ('a decade or more') but also too broad to guide detailed policy (such as one's views on human nature). 'Policy core' are specific enough to guide activity but still unlikely to change (such as fundamental beliefs in favour of, or opposition to 'fracking', based on attitudes to the economy and environment). 'Secondary aspects' relate to the implementation of policy. They are the most likely to change, as people learn about the effects of, say, regulations versus economic incentives.

Coalitions compete with each other to dominate how policy is made, and problems are understood, within subsystems. They compete fiercely to interpret evidence, particularly when they romanticise their own cause and demonize their opponents (Sabatier et al, 1987). The ACF's primary focus is on: (a) how coalitions interpret and respond to events; and (b) policy learning, and the revision of secondary aspects of coalition beliefs. Learning takes place through the lens of deeply held beliefs, producing different interpretations of evidence in different coalitions.

Evidence-based policymaking is a highly-charged political process – coalitions selectively interpret information and use it to exercise power. In some cases, there are commonly accepted ways to measure policy performance. In others, it is a battle of beliefs where

coalitions ‘exaggerate the influence and maliciousness of opponents’ (Weible, 2007: 99). Technical information is often politicised and a dominant coalition can successfully challenge the evidence supporting policy change for years – even if the new information seems self-evident to scientists (Cairney, 2007).

Studies of policy transfer, diffusion and learning

Evidence of success from other countries or regions is a key source of inspiration for new policies in an ‘importing’ country. One can engage in trial-and-error based on one’s own experience and/or seek evidence from other governments that have more experience. Indeed, this seems like a good way to deal with bounded rationality: allowing some governments to innovate so that others can emulate. However, there are significant practical obstacles which undermine the role of evidence within that process. They are highlighted by Cairney and St Denny (2014; drawing on Rose, 1993; 2005), who identify criteria to be sure that the importation process is evidence-based, when deciding (a) if the external project was a success, (b) we know why it succeeded, and (c) that we are confident the success can be replicated in other countries:

1. The project was introduced in a country or region which is sufficiently comparable. Comparability can relate to the size and type of country, the nature of the problem, the aims of the borrowing/ lending government and their measures of success.
2. It was introduced nationwide, or in a region which is sufficiently representative of the national experience (it is not an outlier).
3. Sufficient attention is paid to the role of policy implementation and the potential risks to transferring the policy to another region without local ‘ownership’.
4. Sufficient attention is paid to the role of scale, and the different cultures and expectations in each policy field.
5. The project has been evaluated independently, subject to peer review and/ or using measures deemed acceptable to the government.
6. The evaluation is of a sufficient period of time in proportion to the expected outcomes.
7. We are confident that this project has been evaluated the most favourably – i.e. that our search for relevant lessons has been systematic, based on recognisable criteria (rather than good publicity and reputations).

On that basis, in the study of the importation of ‘prevention’ policies in the UK, they found that almost no projects met the criteria. In practice, ways to determine success are rarely clear, and people judge success based on limited evidence. In each case, the “leap from ‘quality of evidence’ to ‘decision to apply’ can never be a simple technocratic choice. It will necessarily involve judgement and political considerations” (Nutley et al, 2013: 14).

In broader terms, the diffusion literature suggests that governments, faced with the need to make decisions quickly in the face of uncertainty, often emulate others without gathering enough evidence to learn, in sufficient depth, about why they are perceived to be successful (Berry and Berry 2014). It suggest that there are five main explanations for policy diffusion: learning; imitation; normative pressure (a perceived need to follow others); competition (particularly to keep taxes and regulations low); and coercion. In other words, only one focuses on evidence gathering as a primary explanation. This is broadly consistent with the

larger policy transfer literature which, one the one hand, highlights the role of 'epistemic communities' containing networks of experts to spread evidence (Haas, 1992), and entrepreneurs 'selling' evidence-based policies from one government to another (Cairney 2012a: 263), but, on the other, the role of external pressure, international obligations and perceived need to keep up with international norms, to explain policy transfer based on limited evidence gathering and meaningful learning (Dolowitz and Marsh, 1996; 2000; Ettelt et al, 2012). In other words, policy transfer is primarily a political exercise based on the selective use of evidence to set the agenda and import one's favoured policy solutions.

Complexity theory and complex systems

Advocates of complexity theory describe it as a new scientific paradigm providing new ways to understand, and study, the natural and social worlds (Mitchell, 2009: x; Mitleton-Kelly, 2003: 26; Sanderson, 2006: 117). This link between natural and social sciences is valuable, since it allows us to describe policymaking systems in a way familiar to scholars, without a policy science background, studying complex systems in areas such as climate change and healthcare (Kernick, 2006; Paley, 2010). The simple message is: if you recognise the role of complexity in your own scientific research, recognise complexity in mine. The more complicated argument is that complex systems have common properties, including:

1. *A complex system is greater than the sum of its parts*. Those parts are interdependent - elements interact with each other and combine to produce systemic behaviour. In politics, the 'nodes' tend to be people or organisations and they interact by sharing information and following rules.
2. *Some actions (or inputs of energy) in complex systems are dampened (negative feedback) while others are amplified (positive feedback)*. Small actions can have large effects and large actions can have small effects. In politics, this is a key feature of agenda setting, in which policymakers often ignore or pay disproportionate attention to issues.
3. *Complex systems are particularly sensitive to initial conditions that produce a long-term momentum or 'path dependence'*. In politics, path dependence refers to the idea of 'historical contingency' or ' the extent to which events and decisions made in the past contributed to the formation of institutions that influence current practices' (Cairney, 2012a: 76). It suggests that when a commitment to a policy has been established and resources devoted to it, over time it produces 'increasing returns' (when people adapt to, and build on, the initial decision) and it effectively becomes increasingly costly to choose a different path (Pierson, 2000; Room, 2011, 7-18).
4. Systems exhibit 'emergence', or behaviour that results from the interaction between elements at a local level rather than central direction.
5. They may contain 'strange attractors' or demonstrate extended regularities of behaviour which may be interrupted by short bursts of change (as described by punctuated equilibrium theory) (Cairney and Geyer, 2015; Cairney 2012b: 124-5; Geyer and Rihani 2010).

In policy studies, the identification of a complex system is often used to give advice about engaging in policymaking (Teisman and Klijn, 2008: 288; Blackman, 2001; Cairney, 2012b: 349; Sanderson, 2006; 2009). For example, it warns against the assumption of law-like behaviour and the idea that evidence of success in one context will mean success in another.

The idea of 'emergence' also has a particular significance, because it highlights outcomes based on the interaction between many actors, often in the absence of central government control – which makes it difficult to know how, and to whom, to present evidence and to predict the impact of evidence-based policy (Cartwright and Hardie, 2012: 162-9).

A brief return to the policy cycle: it looks useful, but remains misleading

This focus on 'emergence' links strongly to the vast literature on implementation and governance (Cairney, 2012b; Hill and Hupe, 2009). At first glance, this may suggest that a focus on stages and cycles is useful after all, to highlight the importance of travelling through a series of policymaking steps. Indeed, a focus on the implementation stage extends this analysis, to highlight the conditions that would have to be met to ensure implementation success (Cairney, 2012a: 35):

1. The policy's objectives are clear, consistent and well communicated and understood.
2. The policy will work as intended when implemented (it is based on the identification of the correct cause of the problem).
3. The required resources are committed to the programme.
4. Policy is implemented by skilful and compliant officials.
5. Dependency relationships are minimal (central government does not rely on too many other bodies for its policy's success).
6. Support from influential groups is maintained.
7. Conditions beyond the control of policymakers do not significantly undermine the process (such as unpredictable events and major socioeconomic shifts).

However, as with the policy cycle, these conditions are generally highlighted in policy studies to say what does *not* happen. The conditions are there to help explain why things go wrong.

Perhaps more importantly, these conditions, and the cycle itself, betray a 'top down' perspective on policymaking. They suggest that policy begins and ends with the decision of a central government policymaker, and that any departure from this process is a problem. This perspective may be descriptively inaccurate and prescriptively problematic (I discuss the latter in chapter 5).

An alternative 'bottom up' perspective developed, in part, to challenge the assumption that central government is the main influence on policy outcomes (Cairney, 2012a: 37). For example, Lipsky (1980) argues that policy is, to a large extent, made by the 'street-level bureaucrats' (including teachers, doctors, police officers, judges, and welfare officers) who deliver it. Bureaucrats are subject to an immense range of, often unclear, requirements laid down by regulations at the top, but are powerless to implement them all successfully (1980: 14). Instead, they use their discretion to establish routines to satisfy a proportion of central

government objectives while preserving a sense of professional autonomy necessary to maintain morale. The link to the EBPM agenda is clear: if Lipsky is correct, scientists need to make sure that their evidence is understood and used by street level bureaucrats as well as central policymakers.

Similarly, Hjern (1982: 213-6) argues that the assumption that policy is controlled by a single central actor, with consistent aims, exacerbates not only policy failure but also the *perception* that something is wrong with the system. Inattention to the complexity of implementation causes difficulties in the administration of policy, producing feelings of powerlessness when no one seems to be in charge. Instead, we should recognise *intra-departmental conflict*, when central government departments pursue programmes with competing aims, and *interdependence*, when policies are implemented by multiple organizations – many of which will be in the private or third sector. Programmes are implemented through 'implementation structures' where, 'parts of many public and private organizations cooperate in the implementation of a programme'. It is difficult to force decisions on actors within the structure who are employed by other organizations, so it is unrealistic to think that a sole central actor could secure its own aims and objectives irrespective of the actions of the others involved. Although national governments create the overall framework of regulations and resources, and there are 'administrative imperatives' behind the legislation authorising a programme, the main shaping of policy takes place at local levels by implementation structures in which national considerations may play a small part (Hjern and Porter, 1981: 213; see also Barrett and Fudge, 1981: 4; Barrett, 2004; Colebatch, 1998: 30).

This identification of top-down and bottom-up approaches produced considerable debate about how best to describe policymaking, and what implications these studies had for democratic process. Although the debate was never resolved, and it moved on partly to the study of 'governance' (Cairney, 2009a), or was superseded by theories such as the ACF, it reinforces the importance of a focus beyond a small number of actors within central government. A focus on the cycle, and top-down implementation, may give the impression of an ordered and hierarchical policy process. In contrast, the focus of policy theory on power diffusion across many levels and types of government (and shared between public and private actors), complexity theory's focus on 'emergence', and the identification of 'bottom up' elements to policymaking, all highlight the importance of local action.

The link to EBPM is clear: it could be a mistake to focus all of your energies in trying to get elected central government policymakers to pay attention to your evidence, adopt your preferred solution, and assume that it will inevitably be carried out, as if on a cycle with straightforward stages, from evidence based problem identification towards evidence based solution evaluation. In many cases, the most relevant evidence-adopters will be operating at multiple levels of government, stages will appear to interact in a disorderly way, and policy will be made as it is carried out, by bodies that may not report directly to central government.

Conclusion: key tenets of EBPM in the real world

The policymaking literature explains why there cannot be a direct and unproblematic link between scientific evidence and policy decisions and outcomes. Indeed, using the ideal-type of 'comprehensive EBPM', we can identify the conditions required to minimise an evidence-policy gap:

- it is possible to produce a scientific consensus based on an objective and comprehensive account of the relevant evidence
- the policy process is centralised and power is held by a small number of policymakers
- scientific evidence is the sole source of knowledge for policymakers
- policymakers understand the evidence in the same way as scientists
- policymakers have the motive and opportunity to turn the evidence into a solution that is consistent with, and a proportionate response to, the policy problem.

In the real world, the evidence is contested, the policy process contains a large number of influential actors, scientific evidence is one of many sources of information, and policymakers base their decisions on a mixture of emotions, knowledge and short cuts to gather relevant evidence. This takes place in a policy process containing networks which have their own rules on who, and what sources of evidence, to trust, and often a 'monopoly' on how to understand problems. Attention to particular kinds and sources of evidence can lurch unpredictably, as events prompt policymakers to shift their focus quickly, or ambiguity and uncertainty contributes to shifting attention to different policy images. The use of evidence is a political process; an exercise of power to characterise people and problems, and to justify beliefs and decisions. Policymakers use scientific evidence in a stylised way before making major decisions.

We can use these insights to generate three initial tenets of evidence based policy making:

1. *Even if 'the evidence' exists, it doesn't tell you what to do*. Scientists may exaggerate scientific consensus on 'the evidence' when they become advocates. Sometimes they provide clear evidence of a problem but are often not in the best position to provide a solution. The evidence may tell us that a solution is effective, but not if it is appropriate. In many cases, scientists providing evidence want an instant impact, but their impact may be more subtle, taking years or decades to filter through

2. *The demand for evidence does not match the supply*. Governments may fund research to seek a 'magic bullet' or killer piece of information to remove the need for political choice. Yet, research studies often focus on the narrow, measurable aspects of interventions while policymakers consider complex problems in an often highly charged political atmosphere. Policymakers pay attention to, or understand, the evidence in different ways than scientists. Their demand for information may be unpredictable. They seek many sources of information – scientific, practical, opinion – to make decisions quickly and despite uncertainty. They also use research selectively: to bolster their case, legitimise their actions, and show that they are acting.

3. *Policymakers make choices in a complex policymaking system in which the role of evidence is often unclear*. The policy process contains many policymakers and it takes time to understand how the system works. Attention to evidence may lurch unpredictably following shifts in the policy environment. Support for evidence-based solutions varies according to which department or unit takes the lead and how it understands the problem. Bureaucracies and public bodies have operating procedures that favour particular sources of evidence and some participants over others. Well-established beliefs provide the context for a consideration of new evidence. Perhaps most importantly, scientists are competing with a wide range of actors, often more knowledgeable of the policy process, to secure a policymaker audience and present evidence in a particular way.

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