

Fostering evidence-informed policymaking: uncertainty versus ambiguity

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Policy studies often distinguish between **uncertainty**, defined as a lack of knowledge about a policy problem or its solution, and **ambiguity**, defined as the potential to produce more than one interpretation of a problem.

Public health actors involved in evidence-informed policymaking should consider incorporating this distinction into their communication and engagement strategies. Reducing uncertainty can be thought of as a technical process through which to address an already well-defined policy problem: supplying the best evidence and delivering it to the right people at the right time. Reducing ambiguity can be thought of as a political process: exercising power to define a policy problem and prompting demand for evidence. Public health actors should consider some of the practical implications of this distinction, including:

- Adapting their strategies to the ways in which policymakers combine cognition and emotion to process evidence, for instance by **combining a concise presentation of information with an engaging story**;
- Adapting their strategies to complex policymaking environments, for instance by **finding out where the *action is*, learning the rules of each policymaking venue, forming coalitions and developing connections in policy networks, and weighing the trade-offs between insider strategies used to build trust and outsider strategies used to criticize inaction**;
- Reflecting on the ethical dilemmas highlighted by these implications, particularly when the most effective ways to privilege evidence in policy are to **restrict debate, romanticize our own cause and demonize our opponents, and exploit social stereotypes**.

Introduction

Public health actors, and other proponents of evidence-informed policymaking, often complain that policymakers do not respond well enough to the evidence that they present. The former often respond by supplying more information without recognizing the value of **framing**¹ evidence as part of a more sophisticated persuasion strategy. The aim of such a strategy is to persuade policy makers to pay close attention to one particular interpretation of a policy problem and demand evidence to solve it.

The classic example is tobacco. We know that smoking harms health. However, the key debate has long been between opponents of tobacco control, who argue that tobacco is an economic good and that healthy behaviour is primarily a matter of personal choice, and proponents who argue that we should treat smoking as an urgent epidemic that should be addressed through taxation and various regulations. The choice of frame matters because the same evidence of health harm can be used to make fundamentally different policy choices.

Policy studies relate this potential to interpret and frame issues to the difference between uncertainty and ambiguity. For our purposes, **uncertainty** describes a lack of information or low confidence in one's knowledge (such as limited data on smoking prevalence or on the impact of interventions on behaviour). **Ambiguity** describes the ability to interpret a policy problem, and therefore to try to solve it, in profoundly different ways (Cairney, Oliver, & Wellstead, 2016).

¹ Framing is the strategic use of information to draw attention to one interpretation a policy problem. One metaphor is a window frame limiting your view directly. Another is the hidden frame of a building, describing beliefs or arguments so taken for granted that they are not

always visible in debate. Framing is part of the potentially persuasive story you tell people, but it may not be effective unless you know the story that people tell to themselves.



In studies of politics and the pursuit of evidence-informed policymaking, the difference is crucial because we can only provide more evidence to reduce uncertainty, not ambiguity (Cairney, 2016). To reduce ambiguity, policy actors have to go much further and exercise power to generate attention and support for one interpretation of a problem at the expense of most others.

There is no single model or approach to help explain how to draw out the practical implications of this distinction for public health actors. Rather, we need to synthesize key insights from many policy theories to help us understand two key factors: how do policymakers think about policy, and what is the policy process in which they engage?

In the first two sections of this document, we'll unpack these key factors, related concepts and theories to explain how relevant they are to understanding the distinction between uncertainty and ambiguity. We will then draw out some of their practical implications for the advocates of evidence-informed policymaking by looking at five key examples of policy concepts and theories that describe uncertainty and ambiguity in complex environments.

How do policymakers think about policy?

At the heart of the uncertainty / ambiguity distinction is the concept of *bounded rationality* (Simon, 1976), which is used in most theories of the policy process to describe key aspects of individual and collective behaviour (Heikkila & Cairney, 2017).

Its comparator is **comprehensive rationality**, which represents an *ideal-type* – an artificial construct to be compared with reality – that resembles many contemporary hopes for evidence-informed policymaking (Cairney, 2016). The ideal-type involves a small powerful group of elected policymakers at the centre of government, identifying their values and aims to maximize benefits to

society, and aided by neutral organizations gathering all the facts necessary to produce policy solutions (John, 2012). In this scenario, policymakers:

- can completely separate their values from facts;
- have the organizational capacity and cognitive ability to prioritize their aims consistently and produce and understand all information relevant to achieving them;
- make policy in a straightforward manner via a linear series of stages from agenda setting and policy choice to implementation and evaluation (Benoit, 2013; Cairney, 2016).

In other words, in this ideal-type in which policymakers possess comprehensive rationality, they can focus simply on using evidence to design and deliver *what works* (Cairney, 2019).

At first glance, the more realistic concept – **bounded rationality** – seems to describe a truism: people do not have the time, resources or cognitive capacity to consider all information, all possibilities, all policy problems, all solutions, or anticipate all the consequences of their actions. However, in three important ways, it goes beyond this simple limitation.

SEPARATING VALUES AND FACTS

First, bounded rationality includes our inability to separate values from facts in any meaningful way, or rank policy aims in a logical and consistent manner (Cairney, 2012; Lindblom, 1959; Simon, 1976). In other words, we should reject the misguided notion that, in policymaking, we can completely separate subjective policymaker values from objective scientific evidence (Douglas, 2009), and therefore clearly demarcate responsibilities between the elected policymakers identifying problems and researchers solving them (described by Pielke, 2007, and critiqued by Jasanoff, 2008). Consequently, any attempts to focus merely on *what works*, or on completely technical solutions to problems, are based on a misleading image of the role of evidence in policy (Boswell, 2017; Botterill & Hindmoor, 2012).

This is not an easy argument to explain without vivid examples.² However, the key practical implication is easier to grasp: all people use values and beliefs to identify the fundamental nature of policy problems, decide which problems are more or less important, and form judgements on the appropriateness and effectiveness of solutions (Cairney, 2016). Evidence provides facts, but facts have no meaning until we evaluate their implications with reference to our beliefs and expectations. As in our first example of tobacco, we can produce facts on smoking prevalence, but not on if it is too high; we can produce facts on the impact of an intervention, but not on if it is worth the effort, or on if the unintended consequences are too great.

ACTING QUICKLY AND DECISIVELY

Second, policymakers face immense pressure to act quickly and decisively despite these well-known limits to their cognitive and information processing abilities. To do so, they have to combine two types of shortcuts to process enough information quickly that are often described as “rational”/“irrational”³:

1. **“Rational” shortcut:** Policymakers try to prioritize their goals, and they privilege certain sources of information which they trust and find reliable (such as expertise). They assert relatively high certainty about their perception of the policy problem, but relatively low certainty about how to solve it. They seek to resolve uncertainty by accessing more evidence.
2. **“Irrational” shortcut:** Policymakers draw on their emotions, gut feelings, deeply held beliefs, values, habits, and information that they already find familiar (Cairney & Kwiatkowski, 2017). In psychology, such processes are described as “fast” or “system 1” thinking “with little or no effort and no sense of voluntary control” (Kahneman, 2012, p. 20), or “moral reasoning” as part of an “intuitive system” in which people have a quick gut reaction then seek evidence primarily to justify it (Haidt, 2001, p. 818). In such

circumstances, an appeal for more evidence to reduce uncertainty would miss the point because people also draw on “irrational” shortcuts to make decisions quickly.

The “rational” shortcut is familiar to public health actors who try to reduce policymaker uncertainty by: (a) improving the quality of, and synthesizing, scientific evidence, and (b) making sure that there are no major gaps between the supply of and demand for evidence. Relevant debates include: what counts as good evidence (Nutley, Powell, & Davies, 2013; Nutley, Walter, & Davies, 2007) and what are the barriers – such as poor communication – between supply and demand (Oliver, Innvær, Lorenc, Woodman, & Thomas, 2014a; Oliver, Lorenc, & Innvær, 2014b)? Further, a focus on reducing uncertainty often gives the impression that policymaking can be a technical process in which people need to produce the best evidence and deliver it to the right people at the right time.

Yet, the “irrational” shortcut undermines such a simple understanding. In this case, policymakers are reducing ambiguity quickly by turning a complex problem – subject to many possible interpretations – into one simple interpretation. A focus on reducing ambiguity acknowledges the reality of a necessarily political process in which actors are exercising power to compete for dominance of the policy agenda. We ignore the politics of policymaking at our peril.

UNLIMITED NUMBER OF PROBLEMS AND SOLUTIONS

Third, both cognitive shortcuts provide ways to deal with the scarcity of policymaker attention during a process of agenda setting in which:

- “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.

² “One strategy is to use extreme examples to make the point. For example, Herbert Simon points to Hitler’s *Mein Kampf* as the ultimate example of value-based claims masquerading as facts. We can also draw on some embarrassing historic academic research which states that the evidence exists to show that men are more intelligent than women and some races are demonstrably superior to others. In such cases, we would point out, for example, that the design of the research helped produce such conclusions: our values underpin our assumptions about how to measure intelligence or other measures of superiority” (Cairney, 2015).

³ This distinction refers to two cognitive functions that all people use every day, not just policymakers (Storbeck & Clore, 2007). Despite the negative connotations usually attached to the term “irrational,” it should not be interpreted negatively in this document since it refers to an essential part of our cognitive processes. Further, many scholars describe “fast and frugal heuristics” positively (Gigerenzer, 2001) and criticise the exclusionary nature of the rational good/ irrational bad distinction (Fonow & Cook, 2005; Hall & Tandon, 2017).

- There is an almost unlimited number of solutions to those policy problems. Yet, few policy solutions will be considered, while most others will not” (Cairney, 2012, p. 183).

Agenda setting is about making sure that policymakers use their scarce attention to focus on one problem, one way of interpreting that problem, and one solution, at the expense of all others. This competition takes place in a policymaking system in which the government as a whole can consider many issues at once (*parallel processing*) but the highest level macropolitical agenda can only consider one at a time (*serial processing*) (Baumgartner & Jones, 2009; True, Jones, & Baumgartner, 2007). Meaningful attention to some issues means crowding out the rest (Crenson, 1971).

Summary: responding to bounded rationality, uncertainty, and ambiguity

Policymakers have to turn complex problems into simple actions, and ignore almost all issues and evidence. They use cognitive short-cuts to prioritize and research a small number of goals, and use their beliefs, emotions, and habits to evaluate problems quickly. In that context, simply supplying more evidence to reduce uncertainty can be counterproductive. It may be more effective to address ambiguity; to influence policymaker attention, the way they define problems and, therefore, their demand for evidence.

Some of the practical implications include:

- Finding ethical ways to exploit the cognitive shortcuts of policymakers, such as telling an engaging story that mobilizes their beliefs and values to draw attention to the evidence presented;
- Framing the problem to draw attention to it, and to *your* interpretation, at the expense of other interpretations and problems.

What is the policy process in which policymakers engage?

Although policymakers identify goals, “they are not generally effective in judging the connections between those goals and the complex reality they face” (Jones & Thomas, 2017, p. 49). They operate within a complex policymaking environment or

system of which they have limited knowledge and over which they have even less control, rather than within a simple policy cycle over which they have complete control (Cairney, 2016). Therefore, it is essential to conceptualize the policymaking environment with reference to its often-unmanageable size and the practices that develop to deal with these limits to understanding and control. Most policy theories describe these five key elements of policymaking environments (Cairney, 2016; Heikkila & Cairney, 2017; John, 2003):

ACTORS AND VENUES

There are many actors making and influencing choices at many levels of government. This image contrasts with that of the policy cycle in which an elite group of policy analysts work with a core group of policymakers at the “centre.” Rather, scientists and practitioners are competing with many actors to present evidence and secure a policymaker audience, and there are many “venues” or arenas in which authoritative decisions can be made. For example, national central governments may share power with subnational governments and issue-specific delivery bodies.

INSTITUTIONS OR RULES

Each venue has its own institutions, or the rules and norms maintained by policymaking organizations. Some rules are formal and well understood, but many others are informal, difficult to grasp, and communicated non-verbally (Ostrom, 2007). They include the rules of evidence gathering; support for particular evidence based solutions varies markedly according to which organization is in charge and how its actors use standard operating procedures to research and address policy problems.

POLICY NETWORKS

Governments contain multiple policy networks, or relationships between policymakers and influencers, many of which develop in subsystems and contain relatively small groups of specialists. For example, in the UK there was once a strong network of treasury and trade policymakers and tobacco companies, replaced eventually by a network of health policymakers and public health advocates (Cairney, Studlar, & Mamudu, 2012). Some networks are close-knit and difficult to access because bureaucracies have operating procedures that favour particular sources of evidence and participants.

IDEAS AND BELIEFS

There is a tendency for well established ideas – as the core beliefs of policymakers or paradigms in which they operate – to dominate discussion (Cairney & Weible, 2015; Hall, 1993). Well-established beliefs provide context for policymaking, influencing levels of receptivity to new policy solutions proposed to policymakers (Kingdon, 1984). So, new evidence on the effectiveness of a policy solution has to be accompanied by successful persuasion, to prompt a shift of attention to a policy problem and a willingness to understand that problem in a new way. For example, new evidence on environmental tobacco smoke helped shift understanding from smoking as personal choice to smoking as producing collective harm.

STABILITY AND RAPID SHIFTS

Policy conditions and events can reinforce stability or prompt policymaker attention to shift. Social or economic crises or focusing events (Birkland, 1997) can prompt lurches of attention from one issue to another, and in some cases evidence can be used to encourage that shift.

Five ways to address uncertainty and ambiguity in complex policymaking environments

Policy theories combine reference to psychology and complex policymaking environments to show how policymakers address ambiguity (Cairney & Weible, 2017; Weible & Cairney, 2018). This section uses five examples to identify the practical implications and ethical dilemmas for public health actors.

RESTRICTING ACCESS AND SHARING AN UNDERSTANDING OF THE POLICY PROBLEM

Policy communities address ambiguity by limiting policy debate, to create a common understanding of a problem and therefore influence the demand for evidence. The study of communities began by identifying the size and scope of the state, which is too large for any individual organization to understand (Jordan & Cairney, 2013; Jordan & Maloney, 1997; Richardson & Jordan, 1979). Instead, the state's component parts must be broken down into more manageable policy sectors and sub-sectors. Elected policymakers pay attention to a small number of issues and ignore the rest. They delegate policymaking responsibility to other actors

such as bureaucrats at low levels of government or government agencies operating at arm's length from ministers. At this level of government and specialization, bureaucrats rely on experts and specialist organizations for information and advice. Those experts trade information/advice and other resources for access to, and influence within, government. Therefore, most public policy is conducted primarily through small and specialist policy communities that process issues at a level of government not particularly visible to the public, and with minimal senior policymaker involvement.

In some cases, the pervasiveness of policy communities presents a major opportunity for advocates of evidence. Community stability depends on trust and shared appreciation when participants follow the rules, retain a privileged position, and help produce one dominant definition of the policy problem (Jordan & Maloney, 1997). In doing so, they exclude other actors by portraying the policy problem as solved in principle; only the relatively technical details of implementation remain. The lack of outside attention allows some actors to maintain a monopoly of access to government and to monopolize the way in which to understand the policy problem (Baumgartner & Jones, 2009). If this is done successfully, the main task becomes to reduce uncertainty, and maintain insider status, by becoming a routine source of useful evidence.

This potential for monopoly can help certain scientific advocates, as privileged insiders in some communities. It can also hinder them, as relatively excluded actors in other communities (Boswell, 2009; Cairney et al., 2012). If they face the latter situation, one potential solution is aggressive "venue shopping," in which they seek more sympathetic audiences in other authoritative venues, challenging a dominant understanding of a policy problem by combining "a mixture of empirical information and emotive appeals" (True et al., 2007, p. 161; see also Masse Jolicoeur, 2018).

ROMANTICIZING YOUR OWN CAUSE AND DEMONIZING YOUR OPPONENTS

The Advocacy Coalition Framework describes the formation of coalitions based on shared beliefs. Actors use their beliefs to resolve ambiguity (they agree on a shared interpretation of a problem) *then* seek evidence to reduce uncertainty. Actors simplify the world by relying on their beliefs systems (Jenkins-Smith, Nohrstedt, & Weible, 2014; Sabatier

& Jenkins-Smith, 1993). Beliefs range from *core* (fundamental beliefs on the nature of people and the world), to *policy core* (inflexible beliefs on the role of the state and policy), and to *secondary aspects* (more flexible, regarding how best to achieve outcomes) (Sabatier & Jenkins-Smith, 1993). People enter politics to translate their beliefs into policy, by forming coalitions with people who share their beliefs, and competing with other coalitions.

Coalitions compete in emotionally-charged ways, built for example on prospect theory, according to which “people remember losses more readily than gains” (Quattrone & Tversky, 1988, p. 735), which distorts their perception of the power of their competitors (Jenkins-Smith et al., 2014). Coalitions compete fiercely to interpret evidence and gain the favour of policymakers. They romanticize their own cause and demonize their opponents. Sabatier, Hunter, and McLaughlin (1987, p. 451) describe the *devil shift*: “at least in relatively high conflict situations, political elites tend to see their opponents as ‘devils,’ i.e., as being more powerful and more ‘evil’ than they actually are.” In the resultant battle of ideas, coalitions “exaggerate the influence and maliciousness of opponents” and interpret the same evidence in wildly different ways (Weible, 2007, p. 99). In less extreme cases, we might witness a greater role for researchers in brokering compromise (Ingold & Gschwend, 2014) or during routine policy learning, but learning still takes place through the lens of the coalition members’ deeply held beliefs and refers largely to secondary aspects and technical aspects of policy design.

In other words, the simple supply of evidence to reduce uncertainty will not be effective under these circumstances. Actors have already addressed ambiguity via belief-driven coalitions. They use their beliefs to interpret new evidence, and often compete fiercely to interpret the quality and implications of technical information, “even if the new information seems self-evident to scientists” (Cairney, 2016, p. 36). So, for example, public health actors may be faced with the need to work with one coalition to challenge another, rather than expect all actors to welcome or use their evidence.

TELLING STORIES TO INFLUENCE AGENDAS

Storytelling is important for two related reasons. First, people simplify their existence by creating internal stories “about themselves and their place in the world” (Cairney & Kwiatkowski, 2017, p. 5;

Tuckett & Nikolic, 2017). Second, policy actors try to influence their audiences by using storytelling techniques to exploit the ways in which people try to understand and act within their world (Crow & Jones, 2018; Jones & Crow, 2017). Persuasion is like marketing; people sell policy problems and solutions by exploiting cognitive biases like emotions, appealing to core values, and drawing on sources that people trust (Stone, 1989, 2002).

The Narrative Policy Framework identifies the role of perception and social construction in creating different policy realities (McBeth, Jones, & Shanahan, 2014). People create simple narratives describing: a *setting* (the context which contributes to the nature of the policy problem), *characters* (the villains causing problems and heroes ready to solve them), the *plot* (describing, for example, the urgency of the policy problem), and a *moral* (why you should choose this policy solution). They compete with other providers of stories to influence their audience.

The Narrative Policy Framework emphasizes the use of persuasion to reduce ambiguity by providing a simple understanding of a policy problem (what should we do?), which influences demand for evidence to reduce uncertainty (how can we do it?). Jones and Crow (2017) contrast this approach with the tendency of scientists to try to provide more evidence to reduce uncertainty caused by a knowledge deficit. Without a convincing story, there will be limited demand for that evidence. Further, that story is most likely to convince an audience if it reinforces their beliefs, and there is little chance that it will change minds.

EXPLOITING MORAL REASONING AND SOCIAL STEREOTYPES

The social construction and policy design approach describes actors competing to tell stories to assign praise or blame to groups of people (Pierce et al., 2014; Schneider & Ingram, 1993, 1997; Schneider, Ingram, & DeLeon, 2014). For example, politicians make value judgements, based on stereotypes of target populations, about who are the “good” people to be rewarded or the “bad” to be punished by government. They do so *strategically*, by exploiting the ways in which many people think about groups, and *emotionally*, making superficial judgements backed up with selective use of facts. These judgements are reproduced in the policy designs – the sum total of policy, from statements of intent to statutes and policy delivery – which can endure for

years or decades. For example, Soss (2005) describes a two-tier US social welfare system: the “superior tier” consists of depersonalized federal social security programs, primarily for the elderly or disabled; the “lower tier” consists of less generous public assistance programs “that disproportionately serve disadvantaged groups such as people of color, women, and people who have lived in poverty” (2005, p. 295).

The distribution of rewards and sanctions in policy design sends signals to citizens, who participate more or less in politics according to how they are characterized by government. Only some groups have the power to challenge the way they are described by policymakers (and the media and public), either by exploiting their positive image to maximize policy benefits, or receive benefits behind the scenes despite their poor image.

Most policy issues are not highly salient and politicized in this way. Yet, low salience can exacerbate citizen exclusion when policies become dominated by bureaucratic interests. Thus, a small elite dominates policymaking when there is high acceptance that (a) the best policy is evidence based, and (b) the evidence should come from experts.

Given this context, social construction and policy design highlights important normative issues tied to strategies for improving evidence use:

- Should you package evidence to exploit social stereotypes and the ways in which politicians are prone to use them, versus opposing them and risking relative short-term exclusion?
- Should you encourage de-politicization to focus more on evidence and experts, knowing that this process could further alienate the citizens we seek to help?

In other words, the pursuit of evidence-informed policymaking not only involves the need to focus on persuasion to address ambiguity, but also a dilemma about how far you should go to be influential with evidence (Cairney & Oliver, 2017).

BECOMING POLICY ENTREPRENEURS

If we choose to go beyond the simple provision of evidence, we can learn a lot from policy entrepreneurs. Policy studies describe entrepreneurs in many ways (Bakir & Jarvis, 2017; Faling,

Biesbroek, Karlsson-Vinkhuyzen, & Termeer, 2018; Mintrom & Norman, 2009). For example, Kingdon’s (1984) multiple streams approach describes actors who “possess the knowledge, power, tenacity, and luck to be able to exploit key opportunities ... and invest their time wisely for future reward” (Cairney, 2018). They do so in a policymaking environment over which no single actor has control. Rather, three separate processes must come together – during a *window of opportunity* – to produce policy change: attention lurches to a policy problem and one interpretation of it, there already exists a technically and politically feasible solution, and key policymakers have the motivation and opportunity to select it.

Some of the lessons from the multiple streams approach have already been discussed in this document. To be effective, entrepreneurs know that they have to: focus on persuasion and storytelling rather than simply provide evidence; and, invest their time to learn the rules of policymaking venues and build up connections in networks to know when to exploit windows of opportunity. Further, their relative influence depends largely on the nature of their environment: in large systems they may be akin to “surfers waiting for the big wave” (Kingdon, 1984, p. 173), but in niche areas they may have more influence over choices and events (Cairney & Jones, 2016).

However, the multiple streams approach also provides a lesson that seems counterintuitive (at least if we believe in a policy cycle in which agenda setting prompts new searches for policy solutions). Since attention lurches so quickly, and solutions can take years to become feasible, they may need to be produced to solve problems that have yet to arise on the policy agenda. Therefore, “advocates lie in wait in and around government with their solutions at hand, waiting for problems to float by to which they can attach their solutions, waiting for a development in the political stream they can use to their advantage” (Kingdon, 1984, p. 165-166).

In other words, many studies of the barriers between evidence and policy describe the importance of timing as “being in the right place at the right time” or with reference to the “serendipitous nature of the policy process” (Oliver et al., 2014a, p. 4). However, the multiple streams approach goes further to identify the incredible lengths to which entrepreneurs may need to go to make sure that they can frame problems and solutions in the right way, *and* at the

right moment, to exploit the temporary motives of policymakers (Cairney, 2018). It is relatively easy to learn how to be entrepreneurial, but most entrepreneurs fail or only succeed when they devote the best part of their careers to their task.

Summary: addressing uncertainty and ambiguity in complex policymaking environments

Policymakers navigate crowded environments in which coalitions compete for their attention. Coalitions compete with each other to use evidence to define policy problems and generate support for their preferred solutions.

Some of the practical implications include:

- Weighing the trade-offs between insider strategies used to build trust, where evidence can be routinely supplied to solve technical problems, and outsider strategies used to criticize inaction or shift attention to other problems or interpretations;
- Forming coalitions to empower your allies, rather than expecting all actors to use your evidence;
- Crafting simple stories, using a *setting*, *characters*, *plot*, and *moral* that draws on the core beliefs of the target audience, rather than hoping that the evidence will speak for itself, especially when engaging with actors who do not demand such evidence routinely;
- Learning from the strategies of policy entrepreneurs: produce a feasible solution, devote time to learning the rules of policymaking venues and building up connections in networks, and exploit the right time to sell your solution;
- Deciding how far you are willing to go to turn your evidence and beliefs into action. Limiting debate, demonizing your opponents, and exploiting social stereotypes may be effective, but may also be unethical.

Conclusion

Policymakers and influencers seek to address uncertainty *and* ambiguity. Overall, a focus on uncertainty and ambiguity prompts us to consider how policymakers use evidence, how we can respond effectively, and the lengths to which we should go to ensure evidence-informed policymaking. The distinction has major implications for anyone seeking to influence policymakers and form coalitions with influential actors. In this paper, we highlighted some of these implications for public health actors who wish to support the creation of healthier public policies.

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