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The Politics of Policy Design

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Highlights

- Explores a major disconnect between the theory and practice of policy design
- Relates that disconnect to the story of old and new policy design
- Provides illustrative examples – energy systems, global public health, inequalities policies – to identify the practical lessons of policy theories, as follows
- Beware the insufficient analysis of the connection between functional requirements and policymaking dynamics
- Recognise the limited coordinative capacity of governments and the strong rationale for seemingly suboptimal policymaking arrangements
- Identify the policy design dilemmas that need to be resolved via clear political choice rather than technical design methods
- Manage expectations about the prospect for policy learning-informed policy change

Abstract

This paper highlights a major disconnect between the theory and practice of policy design. It provides a contrast between two ways to envisage design in political science. The first focuses on functional requirements and techniques, highlighting what policymakers need to do and the steps they use. The second focuses on theories and empirical studies that situate policy design within the wider study of policy processes, highlighting a major gap between requirements and outcomes. These approaches should complement and inform each other, but rarely do. Most policy theories treat classic descriptions of policy design (such as making policy via series of steps or stages) as divorced from reality, and only useful as ideal-types to contrast with what actually happens. Policy theories may be more accurate, but very few provide equivalent practical lessons (and most do not try). If so, what are the prospects of bringing together these literatures? The paper examines two kinds of theory-informed policy design: theories at the *service of analysis* or *sources of critical analysis and cautionary tales*.

Introduction

'Policy design' is an umbrella term to describe *the act of defining policy aims and the policy tools to deliver them* (Howlett et al, 2014: 291). However, many different disciplinary approaches, methods, perspectives, and actors shelter under this umbrella, and it is not clear if they complement or contradict each other. In that context, this paper identifies an initial contrast between two ways to envisage policy design in political science. The first – arising from policy analysis - focuses on functional requirements and analytical techniques, highlighting what policy actors need to do to identify their aims, and the steps they need to take and 'policy tools' they need to use to achieve them. The second – arising from policy theories and empirical studies - situates policy design within the wider study of

policymaking, highlighting a major gap between functional requirements and actual policy process and outcomes. Governments use policy tools, and tools contribute to outcomes, but their origins and effects can rarely be traced to a clearly-defined act of policy design.

These approaches should be complementary and mutually informative. Indeed, Harold Lasswell's foundational aim for a multi-method and interdisciplinary 'policy sciences' was to produce policy analysis informed by studies of policymaking context: 'The policy sciences may be conceived as knowledge *of* the policy process and of the relevance of knowledge *in* the process' (Lasswell, 1971: 3; Lasswell and Kaplan, 1950; Lasswell, 1951; Lasswell 1971; Dunn, 2019).

Yet, there is generally a gulf between both endeavours following decades of separate specialist study. Their separate academic focus – *what do we need to do* versus *what actually happens* – and negative perspectives on each other's field get in the way of theory-informed policy analysis (Cairney, 2021a). Policy analysis remains largely atheoretical, and theory remains largely unpractical (Cairney and Weible, 2017; Weible and Cairney, 2021).

Howlett et al (2014) argue that *new policy design* could help overcome these obstacles. They seek to combine practice and theory: identifying key elements of policy design (defining problems, designing policy tools, and connecting tools to a 'theory of change' to predict their effects) *and* using policy process research to anticipate how new policies interact with a complex policy context (2014: 294). As such, it recognises the value of a discreet process of design (backed by well-established models and techniques) but warns against prioritising the design methods that produce abstract outputs divorced from policymaking reality. Yet, the story of *new policy design* is easier to tell than achieve, since key differences between policy analysis and process approaches remain. If so, what are the prospects of bringing together both literatures in a meaningful way, and what would be the practical payoff?

In that context, the first section of this paper asks: *what is old and new policy design*? It examines the meaning of policy design from the perspective of policy analysis and process scholars, focusing on the intersection between design as (1) something to do, or (2) contributing (somewhat) to something to explain.

The second section examines two different roles of policy theory in policy design. One option is to use theory in service to analysis: identifying context and processes to help refine new policy design (see Howlett and Leong, 2021 in this special issue). Another is to treat theory as a source of cautionary tales, identifying the need to *engage critically with policy design dilemmas* and *incorporate the lack of designer impact into the policy design process*. I describe two categories of dilemma throughout the paper. The first relates to classic trade-offs in policy design, including: what if they seek the benefits of national uniform policies (e.g. to foster equitable outcomes) *and* local policymaking autonomy (e.g. to foster collaboration and creativity)? In such cases, designers may clarify rather than solve the need for political choices. While this role may be taken for granted in policy design studies, it is crucial for practitioners new to the field. The second relates to the limited power of policy designers: what if they accept the policy theory story that their actions are constrained by their policymaking environments? Some analysts may respond by drawing practical lessons from policy theories to maximise their influence, but this approach raises more problems than it solves.

What exactly is (old and new) policy design?

Broadly speaking, policy design is 'an activity conducted by groups of actors' to pursue 'improved policy processes for better outcomes for society' (Pluchinotta and Steenmans, 2021), 'through the accurate anticipation of the consequences of government actions and the articulation of specific courses of action to be followed' (Howlett and Lejano, 2012: 358).

Policy design is difficult to define precisely, partly because: it can be something to *do* and/or *explain*. Definitions rely on a metaphor – relating to architecture – to distinguish between the on-paper design and the actual output. Designers face a messy world of 'multiple, unclear, and conflicting values, complex problems, dispersed control, and the surprises that human agents are capable of springing' (Bobrow and Dryzek, 1987: 19).

Such difficulties prompt scholars to quote Bobrow's (2006) 'Policy Design: Ubiquitous, Necessary and Difficult' and Bobrow (2006: 77) to use simple definitions and images of design mostly as a foil for a messier reality (in the same way that scholars only partly answer the question: *what is policy*? Cairney, 2020: 17-19). The process seems particularly messy when descriptions identify the iteration between action and reflection: identify what needs to be done and why, relate that necessity to what is likely to happen, reflect on the implications for the act of design, gauge the real world impact of refined policy designs, and so on (2006: 85). Integrated studies of policy design are sensible if they recognise contingency in relation to context and the benefits of 'channeling the energies of disparate actors toward agreement in working toward similar goals' (Howlett and Lejano, 2012: 359-60). However, they are also difficult to pin down, and they do not resolve uncertainty about the relationship between abstract design processes and concrete policy outputs.

Policy design as a verb/noun: comparisons with policy analysis and process research

To reduce that confusion somewhat, we can make clearer distinctions between *policy analysis* as the activity to perform (informed by guidebooks for students or models for civil servants) and *policy process research* as the study of all policymaking activity, including the impact of policy analysts in the real world (informed by theories and empirical studies).

Policy analysis guidebooks help students envisage a manageable process to help a client design a solution to a policy problem: 'Define a policy problem identified by your client; Identify technically and politically feasible solutions; Use value-based criteria and political goals to compare solutions; Predict the outcome of each feasible solution; and, Make a recommendation to your client' (Cairney's 2021a: 12 summary of Bardach and Patashnik, 2020; Meltzer and Schwartz, 2019; Mintrom, 2012; Weimer and Vining, 2017; Dunn, 2017).

In this context, 'solutions' are 'policy tools' (or more specific 'policy instruments'): categorised by Hood and Margetts (2007: 5-6) as *nodality* (sharing information), *authority* (using laws and regulations), *treasure* (allocating resources), and *organization* (allocating staff); also including behavioural or psychological tools (John, 2018); and, tools that combine information processing and 'co-production' methods to aid the act of policy formulation (Jordan and Turnpenny, 2015; Durose and Richardson, 2015; Peters et al , 2018).

Policy process research describes the policymaking context in which analysis takes place (Heikkila and Cairney, 2017; Cairney, 2020; 2021a), highlighting three key constraints. First, there are practical limits to policymaker ambitions: most policy change is minor and major policy changes are unusual. Second, there are major limits to information processing:

'bounded rationality' (Simon, 1976) describes the inability of analysts and policymakers to gather and process all policy relevant evidence. Rather, they use cognitive and organisational shortcuts to gather enough information to inform choices. Third, there are major limits to central government power: policymakers operate within a policymaking environment out of their full understanding or control. That environment can be summed up by six concepts: there are many policy *actors* (policy makers, influencers, analysts) spread across many venues (levels and types of government); each venue has its own *institutions* (formal and informal rules), *networks* (relationships between policymakers and influencers), and *ideas* (ways to understand the world and interpret its policy problems); and, actors respond to *context* (including the socio-economic conditions relevant to policy) and *events* (such as the crisis prompting policymaker attention to lurch to a policy problem).

In this context, the responsibility for policy tools is spread across political systems, and the relationship between each tool and policy outcomes is unclear. Classic accounts of implementation stress the need for central governments to recognise inevitable gaps between the intended and actual outcomes of tools (Pressman and Wildavsky, 1973). Modern accounts of complexity theory stress the need to let go entirely of the idea of central government control. Policy outcomes 'emerge' locally from complex policymaking systems (Cairney et al, 2019).

The benefits of combining policy analysis and process research for policy design

These approaches *could* be complementary and mutually informative: policy analysis steps are akin to functional requirements (what analysts need to do to fulfil their role), and policy process research helps relate requirements to actual capacity (what analysts can reasonably expect to achieve). Indeed, this combination helps tell a stylised story of old and new policy analysis in which policy process research has informed a new understanding of the role of analysts (Radin, 2019; Brans et al, 2017; Cairney, 2021a: 34).

The old story suggests that policymaking is centralized and analysis is rationalist. If we assume the existence of a powerful centre of government, able to harness science *and* the state to deliver its aims, we can assign to policy analysts the role of giving technical advice, about policy formulation, to identify the optimal policy tools to solve policy problems.

If so, policy design is an *activity* (to use the best methods to generate the optimal policy tools to solve a defined problem) **and** an *outcome* (the selection and impact of the tool will be determined by the government).

The new story suggests that policymaking is distributed across many authoritative venues (Cairney et al, 2019) and analysis - to generate interest in problem definitions and solutions - is contested. The overall responsibility for all relevant policy tools, and the impact of multiple tools on outcomes, is unclear. Research shifts from the rationalist idea of a single 'optimal' solution to a political process in which many perspectives matter, the optimality of particular methods and tools is contested, and the overall outcome is indeterminate.

If so, analysts may still see policy design as an activity, but the nature and outcomes of policy tools relate weakly to analysis. Further, the required skills of analysts has shifted to reflect this new environment. The old narrow focus on 'hard', quantitative, technical skills (such as for cost-benefit analysis) compares to a wider focus on skills to foster widespread participation and collaboration (Cairney, 2021a: 35). While described pejoratively as 'soft'

skills, they are indispensable to actors seeking to engage in modern governance (Carey and Crammond, 2015). Further, this attention to widening skills is not restricted to analysts. It also helps academic researchers and scientists jettison their misplaced belief that the best evidence speaks for itself, or that policymakers will share their belief that there is a hierarchy of evidence quality based on research methods (Cairney, 2016). Rather, scientific evidence is one of many sources of policy-relevant knowledge (alongside stakeholder, community, and service user knowledge), prompting initiatives to improve the legitimacy of scientific evidence by connecting it to participatory processes (Cairney and Oliver, 2017; Topp et al, 2018).

The obstacles to integration
This potential for integration remains ill-fulfilled because there is a gulf between both approaches. *From the perspective of policy theory*, policy analysis relates to notions of policymaking that are divorced from reality, and only useful as ideal-types (Cairney, 2020). Indeed, Dunn (2019: 32) and Weible and Cairney (2019) suggest that the classic focus on stages in a policy cycle (e.g. define the problem, formulate solutions, make and legitimize your choice of solution, implement, and evaluate) arose from a misunderstanding. Lasswell (1956) identified categories of decision functions as *functional requirements*, or what analysts and policymakers *need* from policy processes: Intelligence – Recommending - Prescribing - Invoking - Applying – Appraisal - Termination. However, stories of his work morphed into a tale in which policymaking actually operates via a series of stages (e.g. see Wu et al, 2017). Although helpful when viewed through the lens of functional requirements, this approach is incomplete without imagining the interaction between (1) many actions taking place out of sequence (when compared to the well-ordered sequence described by a policy cycle), and (2) many 'cycles' overseen by multiple venues.

From the perspective of policy analysis, policy theory has become too divorced from practice, developing an esoteric technical language with impractical lessons (Cairney and Weible, 2017; Weible and Cairney, 2021). This inability to translate research into models for action can obstruct theory-informed policy analysis and design, providing minimal incentive for policy analysts to learn the jargon (Cairney, 2021a).

The old policy design: the pursuit of integrated policy analysis and process research
These tensions help explain the strange academic history of policy design in which policy process research contributed to its diminished status in political science. First, Howlett (2014: 187) and Howlett and Lejano (2012: 357) describe promising conceptual development from the 1970s. Classic accounts addressed the policy analysis versus research issue by distinguishing between policy design as (1) a puzzle-solving activity ('verb') and (2) an output such as a policy instrument ('noun'), deeming both to be worthy of research (akin to the study, in architecture, of making blueprints or buildings). Pro-design scholars engaged directly with policy theories, including the idea that policymaking resembled the 'garbage can' model of policymaking (Cohen et al, 1972), or Lindblom's (1959; 1979) 'muddling through', rather than an orderly cycle of stages conducive to purposive policy design. Although this was not a uniform field (see May, 1991: 189), the underlying argument was that a fatalistic (nothing can be done) or complacent (the policy process is good enough) argument contributes to poor policy design which diminishes democracy. Key messages include:

Focus on government capacity and feasible policy tools. Salamon (1981: 256; 2002 in Howlett and Lejano, 2012: 362) encouraged scholars to improve implementation research from a different perspective: focus less on the type of problem to solve and more on the types and effectiveness of tools available to governments. This focus includes research on the tools that governments see as technically *and* politically feasible (Lowi, 1964; 1972; see also May, 2003: 225 on how many and which categories of tools or instruments to include).

Don't restrict training to evaluation. Linder and Peters (1984: 240; 253) highlighted a wealth of evaluation training but dearth of design training in policy analysis programmes, contributing to the sense that design is a matter of individual creativity and judgement with few rules *and* undermining evaluation (compare with Considine et al, 2014). In other words, how can we evaluate success in the absence of a clearly designed measure? (compare with del Rio on evaluating 'complex policy mixes').

Incorporate deliberative democracy. Dryzek (1983: 362-4) acknowledged the folly of treating policymakers and analysts as god-like actors 'capable of rational-synoptic problem-solving', but argued that the existence of policy and policymaking complexity 'is no excuse to eschew cogitation'. Rather, as the difficulty of connecting policy tools to their environments increases, 'one must think harder about how to achieve it', drawing on multiple methods to ensure deliberation. This approach should recognise the ethics of policy analysis and choice, rather than pretending that analysis could simply be technical (Bobrow and Dryzek, 1987: 8; see also Sidney, 2007: 81 on the 'conscious inclusion of marginalized populations in the design process').

Don't leave design to the biases of policymakers. Schneider and Ingram (1988) argued that the absence of a clearly defined and systematic policy design process ensures that tool-production is driven by the heuristics (or cognitive biases) of policymakers. If so, it will lack proper attention to the technical issues informed by research and the normative issues that require debate, resulting in a tendency to mimic other government's policies rather than design tools appropriate for their own target populations. This argument preceded the more profound 'social construction and policy design' (SCPD) approach which describes 'degenerative' political systems: policymakers draw (emotionally and strategically) on social stereotypes to assign praise or blame to target populations, these judgements are reproduced in policy design, designs endure for years or decades and produce cumulative effects, and they privilege some citizens while alienating already marginalised populations (Schneider and Ingram, 1997; 2005). Further, SCPD development is accompanied by a more expansive account of policy design in practice:

> 'Policy designs are observable phenomena found in statutes, administrative guidelines, court decrees, programs, and even the practices and procedures of street level bureaucrats … [they] contain specific observable elements such as *target populations* (the recipients of policy benefits or burdens), *goals or problems to be solved* (the values to be distributed), *rules* (that guide or constrain action), *rationales* (that explain or legitimate the policy), and *assumptions* (logical connections that tie the other elements together)' (Schneider and Ingram, 1997: 2).

Relate policy design to political context. Linder and Peters (1984: 242; drawing on Richardson, 1982) argue that policy processes are *conducive* to puzzle-solving policy design: few issues are highly politicised; most are delegated to fairly stable policy communities of

like-minded civil servants and interest groups operating out of the public spotlight. May (1991: 192) describes the latter as 'Policies With Publics', in which interest groups are integral to design. Design challenges include: to generate support for proposed measures, and limit the ability of dissatisfied groups to thwart implementation, by designing a package of measures with technical and political feasibility (1991: 197). In contrast, 'Policies Without Publics' describes the processes that emerge when participation is 'usually limited to technical and scientific communities'. Design challenges include: anticipating opposition, generating momentum, and compensating for an initial lack of participation.

The surprising decline of policy design
Overall, these ideas present some optimism for the pragmatic role of policy design *and* a complementary relationship between policy analysis and process research. First, design helps participants anticipate implementation problems (May, 2003: 223). Sidney (2007: 80) argues that the design literature 'emerged in response to implementation studies of the 1970s'. Most of the problems associated with 'top-down' implementation could be addressed with policy design, including the lack of: goal clarity and consistency, knowledge if a policy tool will work as intended if implemented, attention to delivery chains and how to maintain bureaucratic and interest group support, and anticipation of socio-economic context (May, 2003: 224; Cairney, 2020: 28-9). Further, intergovernmental and nongovernmental cooperation could be fostered via the 'inclusion of capacity- and commitment-building mechanisms in the policy design' (2003: 225).

Second, a combination of design principles and policy theories helps anticipate policymaking dynamics. For example, Polski and Ostrom (1999: 2-3) show how the Institutional Analysis and Development framework (IAD) can help policy analysts combine welfare economics (a key driver of cost-benefit analysis) with political science by incorporating the role of policymaking institutions. They define an institution as the 'rule, norm, or strategy that creates incentives for behavior', noting that some rules are formal and written but many are unwritten and 'invisible, shared concepts that exist in the minds and routines of participants in policy situations', prompting the possibility that the rules-in-use contradict the rules on paper (1999: 3; 15). A key aspect of policy design is to examine carefully 'how participants actually do things and why they do them one way rather than another' (1999: 3). They reject a 'blueprint' approach, since each context is different and designs will not work without anticipating the rules, 'physical and material conditions', and 'patterns of interaction' of each setting (1999: 4; 10; 23; see also Araral, 2014).

Regardless of these developments, policy theories contributed to the decline of policy design studies from the 1990s, generating the sense that the outputs of central government policy design relate very weakly to the outputs or outcomes of policy processes. Policy research found increasingly that the choice of policy tools and instruments was largely outside of the influence of policy designers (the buildings did not result from the blueprints), to the extent that the latter merited little attention (Howlett et al, 2014: 293). While Dryzek (1983) treated new governance developments as a challenge to which policy designers should engage, governance scholars saw them as undermining the importance of policy designers (Howlett and Lejano, 2012: 366). Put simply, if (1) central government control is being replaced by complex networks and institutions of governance in which there are many 'centres' (exacerbated by the reduction of national autonomy by 'globalisation' and international organisations), then (2) do not privilege the study of one of many contributors to governance

and policy outcomes (2012: 367). Such developments took place in the context of plummeting confidence in the old story of policy analysis: 'a wave of optimism [at least in the Anglo-American World] concerning the potential contribution of government action to collective well-being has been replaced by general scepticism .. toward the very idea of public sector action' (Bobrow and Dryzek, 1997: 3).

The new policy design

Howlett and Lejano (2012: 369) argue that such developments should have prompted the study of new policy design skills, since to describe a new policymaking reality is not to show how it helps solve policy problems. It would be a mistake to forget that policies 'do not design themselves' (2012: 370). Rather, there remains a role for designers 'to base their analyses on logic, knowledge and experience rather than, for example, purely political calculations or bargaining' (Howlett et al, 2014: 292).

Howlett et al (2014: 297-300) relate new policy design to the - thriving - study of policy tools in theory and practice, culminating in the modern study of 'complex policy mixes' (see also Peters et al, 2019). They identify three interconected foci, considering how each instrument connects to a 'policy mix':

1. How one group of designers proposes multiple tools to address the same problem (and the trade-offs between key measures).
2. How new tools interact with existing measures, and the extent to which incremental policy changes contribute to a coherent or contradictory agenda (e.g. Mei and Liu, 2014).
3. If new policy designs can solve the unintended developments of policies over time (often described in relation to 'policy feedback' – Jordan and Matt, 2014), without starting again (akin to a software 'patch').

Howlett (2014: 194-7) relates these questions of policy design to those of modern policy analysts:

1. 'Who are the designers?'. They include policymakers and analysts, but advice also comes from official advisory systems and unofficial channels.
2. 'Why do they design what they do?' and 'How do they design?'. Design may reflect the *goals* of policymakers, but also their *skills* in anticipating political feasibility (Considine et al, 2014), feedback from trial-and-error experiments (van der Heijden, 2014), and reactions to market or policy failure (Wu and Ramesh, 2014).

Further, Peters et al (2018: 8-12) show how modern policy design thinking often responds to 'the growing interest in how difficult it is to introduce effective policy interventions': taking into account the role of 'path dependence'; expressing scepticism about a successful solution in one context having the same success in another, and of the idea of 'evidence based policymaking'; downplaying the influence of technical policy analysts in relation to elected policymakers; and, using terms such as 'wicked problems' to reduce expectations for policy design success.

What is the role of policy theory in new policy design?

This new agenda offers a way to produce academic research for policymakers and designers (to support ambitious 'evidence-based' policy change) while being grounded by policy theory

(highlighting the limits to evidence processing and policy change). However, there is more than one way to define this relationship. The role for policy research can be:

1. In the service of policy design, supporting the functional requirements perspective (e.g. Howlett and Leong, 2021 on anticipating risk, and Peters et al, 2018: 18-26 on 'effective instrument mixes').
2. A source of critical analysis, warning against a narrow focus on design blueprints, and using a focus on policymaking environments to challenge agency-centred accounts of policy analysis.

For example, both roles can be found in 'systems thinking'. This approach shows promise as a way to foster new policy design, rejecting a too-narrow focus on self-contained policy problems and solutions and identifying the importance of policy mixes to addressing complex policy problems (Cairney, 2021a: 130). As Dunn (2017: 73) describes:

> 'Subjectively experienced problems - crime, poverty, unemployment, inflation, energy, pollution, health, security - cannot be decomposed into independent subsets without running the risk of producing an approximately right solution to the wrong problem. A key characteristic of systems of problems is that the whole is greater - that is, qualitatively different - than the simple sum of its parts'.

However, while there is some agreement on the need to apply systems thinking to policy, there remains confusion on how it applies to policymaking. Rather, the general literature contains two broad, *contradictory* ways to understand and address complex policymaking systems. The first emphasises the ability of central governments to use policy levers to make order from chaos: 'if we engage in systems thinking effectively, we can understand systems well enough to control, manage, or influence them' (Cairney, 2021a: 130). The second emphasises a tendency for policy outcomes to 'emerge' from complex policymaking systems in the absence of central government control: "we need to acknowledge these limitations properly, to accept our limitations, and avoid the mechanistic language of 'policy levers'" (2021a: 130). Indeed, the absence of control, combined with a tendency for the same tools to have minimal or maximal effects in different contexts, may prompt the greater use of trial-and-error experimentation, aided by local discretion to monitor their effects (Cairney, 2021a: 131).

In that context, I provide three illustrative examples of interdisciplinary and intersectoral research[i] to highlight the role of cautionary tales, particularly across sectors where policy problems are complex and focused on long-term change and the role of government-led policy change is unclear.

The future of energy policy: contrasting approaches to 'whole systems' thinking
Contrasting accounts of systems thinking - assuming high versus low government control - exacerbate conceptual confusion in policy sectors such as energy, in which the role of government is already unclear. There is a growing academic and practitioner consensus on the *policy design problem*: the transformation of global domestic and industrial energy use is fundamental to addressing climate change. Researchers also describe the value of 'whole systems thinking' to encourage a transformation in energy systems from high to low carbon (Munro and Cairney, 2020: 1).

However, we can also find contrasting visions of the role of (government) policy design in that transformation. First, there is a tendency for governments to use the language of energy systems loosely and metaphorically to project a sense of central government influence (2020: 4). In comparison, when Chilvers et al (2017: 44) bring together 'engineers, social scientists and policy analysts' to apply systems thinking to the transition to a 'low-carbon energy', central government coordination is only one of three possible pathways, including market and civil society led pathways. Second, energy systems researchers present more or less confidence in state action, prompting Munro and Cairney (2020: 4-8) to describe two well-established stories of systems thinking, each with contrasting implications for policy design:

1. The 'multi-level perspective' (Geels, 2004) suggests that energy systems are path dependent and require a major impetus to change direction radically. This impetus comes from technological innovation, initially protected from market forces (such as via government subsidy) in a 'niche' to aid policy learning and expansion, and supported by the social and political environment (albeit with no reliable way to 'pick winners', Rhodes et al, 2014). Rogge et al (2018: 1) describe a process - akin to policy design - to that end: identify your goals (meet climate change targets by changing energy supply and demand), encourage public deliberation on how best to meet them (via centralized or decentralized energy systems), then specify the policy mixes and practices to support that transition. Yet, such accounts are under-informed by policy theories, prompting them to focus primarily on the functional requirements of energy system change without relating them to the high likelihood of contestation (undermining collaboration) or the dynamics of policymaking (Munro and Cairney, 2020: 8).

2. Complex systems theories suggest that policy designers or governments may *propose* an energy transition, 'but policy outcomes are not in their control and there is too much uncertainty to predict the effect of their actions' (Munro and Cairney, 2020: 6). The need to avoid 'illusory, control-based approaches' extends to political *and* technical feasibility: public debate may be necessary but governments are unable to ensure public support for the radical reforms that they seek (Butler et al, 2015: 667). Further, energy policy instruments are 'characterized by high complexity levels' and high uncertainty about cause-and-effect, and the effect of policy mixes is 'non-linear', with little ability to predict (1) if the energy transformation will come from a new policy mix, or (2) its distributional consequences (Spyridaki and Flamos, 2014: 1091-2; 1096-7). This uncertainty is exacerbated by the interconnected nature of policy, in which the policy tools employed in many other sectors (and multiple levels of government) contribute to energy system outcomes (Cox et al, 2016: 3-4).

In this case, policy theories help tell a cautionary tale about the consequence of insufficient analysis of the connection between functional requirements and policymaking dynamics. When describing policy design, researchers highlight what they *need* from publics and governments to secure energy system transformation without identifying how to secure it. Policy theories identify the low likelihood that governments can intervene in the required manner, particularly when: the policy problem seems too complex to define simply, the policy mix to address it will have non-linear effects, and policy design takes place in a complex policymaking system in which outcomes emerge in the absence of central government control. While approaches such as the IAD could help improve such energy

system analysis, they do not yet inform 'whole systems' energy thinking (Munro and Cairney, 2020: 7-8).

The future of global public health: policy theories at the service of policy design?
Some applied public health research attempts to use policy theories in the service of policy design. They are clear on the policy problem and broad strategic response, but face continuous advocacy and implementation problems (Cairney et al, 2021: 7-10). A key focus of global public health policy is on health promotion and improvement to reduce non-communicable diseases (NCDs) such as cancers, heart disease, obesity, and diabetes. There is high academic and practitioner consensus on the appropriate response, summed up by the World Health Organisation (WHO) led strategy 'Health in All Policies' (HiAP):

1. *Treat health as a human right and health inequalities as 'unfair and avoidable'* (Helsinki Statement on Health in All Policies, 2013).
2. *Identify evidence of the 'social determinants' of health inequalities.* The cause relates to social, economic, and political inequalities (in relation to income and wealth, education, housing, services, and safety, which are distributed unequally in relation to characteristics including gender and race) rather than biological factors (Whitehead and Dahlgren, 2006: 4; Solar and Urwin, 2010: 6; Corburn et al , 2014: 627).
3. *Identify evidence-based 'upstream' solutions.* Select policy instruments to improve the social and economic environment (rather than focusing on individual lifestyles or healthcare), supported by analytical tools - including health impact assessments (HIAs) – to monitor the health impact of non-health policies (Storm et al, 2011; Gottlieb et al, 2012).
4. *Promote intersectoral action and collaborative governance.* Most powers to affect population health – to redistribute income, improve public services, reduce discrimination, and improve environments - are distributed across government departments and levels of government. Implementation requires governmental and non-governmental cooperation (Carey and Friel, 2015: 796; Tosun and Lang, 2017: 555).

There is also a 'playbook' to aid HiAP adoption and implementation via collaboration, including advice to: raise awareness and connect HiAP to government priorities, focus on 'win-win' solutions with partners, identify policy 'champions' and seek new ways to justify HiAP (traditional cost-benefit analyses do not capture its value) (Cairney et al, 2021: 11-16). Yet, the 'implementation gap' remains a dominant theme in HiAP research, even in best-case scenarios in which a government has made a sincere commitment to HiAP (South Australia) or the social and political conditions are conducive to success (Nordic welfare states) (2021: 20-27).

In that context, HiAP researchers draw on policy theories to improve their 'programme logic' models, which identify a multi-step theory of change. For example, Baum et al's (2019: 6) diagram exhibits a clear discussion of the causal links: better relationships and collaborations, aided by a HiAP unit, policy champions, and a government mandate, help improve policy processes; better processes facilitate better policy; and better policy helps reduce health inequalities. However, the actual outcomes contradict this story, suggesting that other government policies (reducing welfare funding or prioritising healthcare) undermined HiAP, while HiAP's pragmatism-playbook helps a government 'use the language of radical change

in *policy processes* as an alternative to radical changes in *policy instruments*' (Cairney et al, 2021: 24).

While policy theories provide 'practical lessons' (Weible and Cairney, 2021), they aid the critical analysis of dilemmas and policymaking constraints rather than instrumental goals. First, a key aspect of the 'implementation gap' should be viewed more usefully as a design dilemma in which there are clear trade-offs between aims: national direction and the adoption of formal regulations and uniform interventions might aid the pursuit of uniform outcomes (more equitable population health), but also stifle the local collaboration and creativity required to make sense of HiAP in context (and cause variations in outcomes) (Cairney et al, 2021: 45). Second, theories help manage expectations in relation to the limited coordinative capacity of governments. While public administration studies identify the factors that aid 'joined-up' government, policy theories explain why 'silo' working in policy communities has a convincing rationale and will remain pervasive (2021: 40). The practical lesson is to revisit key assumptions and reduce the expectations associated with functional requirements.

The future of equalities policies: the prospects for policy learning and transfer
Policy learning is the use of new information to update policy-relevant knowledge, and policy transfer is the use of knowledge about policy and policymaking in one government to inform another (Dunlop and Radaelli, 2013; Dolowitz and Marsh, 1996). Both are key features of policy design, and the contrast between *agent-based* and *context-based* stories of the process resembles the verb/noun distinction in design (Cairney et al, 2022):

- Agent-based learning is part of: (1) a functionalist analysis to identify the steps required to turn comparative analysis into policy (Rose, 2005), or (2) a toolkit to manage stages of the policy process (Wu et al, 2017: 132).
- Context-based approaches treat learning as something to be: *problematised*, to recognise that learning can relate primarily to experts ('epistemic'), deliberation ('reflective'), politics and contestation ('bargaining'), and power ('hierarchy'); and *explained*, since epistemic learning is one of many possibilities (Dunlop and Radaelli, 2018) and 'transfer' takes many forms (Stone, 2012).

The comparison presents a dilemma: what if policy designers accept the context-based story but seek radical policy change? Can they use policy theories to inform their functional requirements?

While policy theories can be translated *somewhat* into practical guidance, this focus can be misleading without also focusing on unresolved issues. For example, Table 1 summarises key elements of policymaking environments to identify *issues* for learning and design, and the *practical lessons* from theories, but also the *unresolved issues* that arise when we provide general advice. Each practical response may be more akin to a Herculean task. Identifying and engaging with key venues in a multi-centric system could take months, while learning the unwritten rules of organisations could take years. The ability to build trust and a common language in networks may not be in the gift of designers, and it may be impossible to create windows of opportunity to act. Overall, Table 1 creates the impression that learning-informed policy design is a continuous long-term commitment rather than the self-contained process described in policy analysis texts.

Table 1. Agency- and context-centred policy learning

Issues	Practical lessons	Unresolved issues
There are many authoritative venues	Identify the key venues	It is difficult to know (a) from which venues to learn, and (b) which venues will seek to learn
Each venue has its own 'institutions'	Learn the written/ unwritten rules of each venue	Learning rules is a long term (often infeasible) process, not conducive to timely policy learning
Each venue has its own networks	Build trust and form alliances within networks	Trust formation is a lengthy commitment. Network informality increases uncertainty about who seeks lessons
Each venue is guided by dominant ideas on problems and solutions	Learn the language that actors use to frame problems and solutions	Dominant beliefs and language rule out many lessons as politically or technically infeasible
Attention is driven by changes in events and socioeconomic factors	Present solutions during windows of opportunity	Analysts do not influence the events that create opportunities.

Source: adapted from Cairney et al (2018; 2022)

In that context, Cairney et al (2020; 2022) apply three guiding questions to foster *and* reflect on policy learning – comparing policy analysis and process insights - to reduce inequalities:

1. What is the evidence for one government's success, and from where does it come?

- Policy analysis: seek multiple independent sources of evidence.
- Policy process: political actors compete to define good evidence and its implications, and governance choices (on the extent to which policy is centralised) influence evidence choices (Cairney and Oliver, 2017).

2. What story do exporters/ importers of policy tell about the problem they seek to solve?

- Policy analysis: improve comparability by establishing how each government defines the policy problem, establishes the feasibility of solutions, and measures success.
- Policy process: it is often not possible to determine a policymaker's motivation, especially when many venues or levels of government contribute.

3. Do they have comparable political and policymaking systems?

- Policy analysis: identify the comparable features of each *political system* (e.g. federal/ unitary).
- Policy process: identify the comparable features of *policymaking systems* (e.g. actors, institutions, networks, ideas, socioeconomic context).

While this task appears feasible in the abstract, Cairney et al (2022) highlight key issues when applied to complex problems. First, inequalities and inequalities policies are unusually ambiguous; it is difficult to tell how each government defines the problem or prioritises

categories (e.g. economic, spatial, racial, gender-based) and measures of inequality (e.g. regional GDP, access to public services). Second, policy-mapping exercises highlight the spread of responsibility, for relevant policy instruments, across multiple levels and types of government. Third, government initiatives focus on functional requirements rather than policymaking context. Consequently, policy process research helps explain the impressive *absence of policy change informed by learning* (Moyson et al, 2017).

Conclusion

The *new policy design* agenda suggests that we can combine two indispensable aspects of design: the methods and steps to *produce* policy design, and the theories and studies to *describe and explain* its role in policy and policymaking. Yet, Howlett and colleagues' story of the decline of *old policy design* still serves as a cautionary tale, since it was not caused by a lack of sophistication among designers (indeed, the study of design in political science fell as practical knowledge rose). Rather, they relate this trend to the message from policy studies that design was peripheral to policy outputs and outcomes. Crucially, that message can still be extracted from modern policy theories and empirical studies to warn designers that the old problems are not remedied simply by advances in science, methods, and design techniques (Botterill and Hindmoor, 2012 provide the same warning for 'evidence-based policymaking').

Policy theories can serve different positive roles for policy design. Howlett and Leong (2021) take forward its role in the service of design: identifying how theories and concepts, applied to policy context, help understand and overcome design hurdles. Alternatively, this paper explores its role as a source of critical analysis and cautionary tales, focusing on policymaking environments to challenge agency-centred accounts of policy analysis and learning. Illustrative examples highlight several key points.

First, beware the insufficient analysis of the connection between functional requirements and policymaking dynamics. Too often, researchers highlight what they *need* from governments to secure policy change, while policy theories identify the low likelihood that governments can meet that need (often accompanied by the exhortation to explore more communal solutions).

Second, recognise not only the limited coordinative capacity of governments but also the strong rationale for seemingly suboptimal policymaking arrangements. Some result from political choice, to share power across multiple levels of government; others result from necessity, in which central governments must delegate power within and outside of government departments (Cairney et al, 2019). While there is some scope to foster the kinds of 'joined up' government essential to solve complex policy problems, there is also a strong rationale for pervasive 'silo' working in policy communities. This necessity should be incorporated in policy design rather than wished away by optimistic designers.

Third, identify the policy design dilemmas that need to be resolved via clear political choice rather than technical design methods. For example, older studies focused on the extent to which sophisticated policy design could help overcome most 'top-down' policy implementation problems. Now, when researchers identify implementation gaps, they may actually be the political dilemmas that accompany trade-offs between governance aims: central government direction and the adoption of formal regulations may aid the pursuit of

uniform interventions (such as in the service of population equity), but also undermine the autonomy of local collaborations that require high freedom to produce creative solutions to context-specific problems. The dilemma is to decide how much local deviation from a national policy there should be, rather than treating any deviation as a gap to be filled.

Finally, manage expectations about the prospect for policy learning-informed policy change. Part of the problem is that systematic learning requires designers to complete a series of Herculean tasks to (1) ensure full knowledge of policymaking system comparability, and (2) engage effectively to foster design-led policy change. The role of policy analysis may be to encourage evidence-informed and agency-centred design, but policy theories remind us of the need to situate design in a policymaking environment that constrains or facilitates agency.

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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