RETHINKING EVIDENCE-BASED POLICY

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1. Policy shocks

The 2008-09 financial crash and the 2020-21 Covid-19 pandemic expose the fragilities of our economic and social systems. Both involve systemic risks that exploit the underlying conditions, or co-morbidities, of the economy and society – including a misallocation of finance and a lack of domestic industrial capacity to produce critical medical supplies. The two crises probe the collective immune system and prey upon the weaknesses of private businesses and public institutions alike. They hold important lessons for public policy, including the overreliance on certain forms of probabilistic modelling, the under-investment in domestic production and public services as well as the contrasting fortunes of different models of governance and institutions.[1]

It is not just specific policies that are in question. The twin shocks over the past decade or so cast doubt on evidence-based policy-making in general and the use of behavioural or natural scientific approaches in determining policy decisions in particular, notably the assigning of probabilities to rival scenarios. Problems with probabilistic models and their misapplication are not new. A key factor in the 2008-09 global financial crisis was an excessive and uncritical use in financial services of models drawn from physics (Weatherall 2014; cf. Smolin 2006; Thorp and Kassouf

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[1] Here I am indebted to conversations with Jagjit Chadha and Andy Westwood.

1967). In the past ten years we have come a long way in understanding the limits of modelling financial and economic processes based on human behaviour that is supposedly determined by general physical laws or individual psychological dispositions (Akerlof and Shiller 2009). Modelling economic and financial decision either ignored behavioural aspects altogether or reduced them to purely individual actions that can be 'nudged' (Thaler and Sunstein 2008). Missing from such models is the wider social embedding of individual and group choice, as well as a recognition of the intertwining of economic with social scarring in the event of severe shocks.

The outbreak of the Covid-19 pandemic has vastly strengthened the case for interdisciplinary research and cross-disciplinary insights at the service of public policy (Coyle 2020b). Just as after the financial crisis models drawn from epidemiology were used to understand the dynamics of the global financial system (Haldane and May 2011), so too "embedding an SIR (Susceptible, Infected, Recovered) model of disease dynamics in a general equilibrium model of people's spending decisions allows us to capture and calibrate some of the difficult trade-offs" between lives and livelihoods (Haldane 2020; cf. Harvey 2020). Both economic and epidemiological models have to be seen as part of connected social systems. Integrating the economic with the social dimension means that economists and other social scientists can attempt to alter the terms of inevitable trade-offs, minimising the distributional impact on the most vulnerable and helping to improve both political judgements and policy choices.

In turn, economics and politics can counter-balance the tendency in some strands of the natural and behavioural sciences to make claims about producing knowledge of growing certainty. Some scientists (especially those who seek to popularise it, such as Richard Dawkins and Steven Pinker) assert that scientific enquiry leads to incontrovertible truths when in reality scientific findings remain conjectural and fallible even as our knowledge and understanding continue to improve. Here it is worth remembering two rival scenarios based on different models: one by the team at Imperial College predicting more than 500,000 deaths in the absence of a lockdown (Ferguson et al. 2020) and the other by a team at Oxford University claiming significant levels of herd immunity (Gupta et al. 2020). Key to genuine progress is the capacity to question established facts and entrenched methods in an attempt to correct errors – for example modelling assumptions linked to projections of death rates and the spread of the virus as more data become available. That, in turn, is vital in adapting both lockdown rules and public policy in relation to the economic and social impact of Covid-19.

By contrast with the focus on certainty in some strands of the natural and behavioural sciences, the social sciences can help to conceptualise the conditions of what Mervyn King and John Kay (2020) call ‘radical uncertainty’. This matters for a more accurate understanding of the nature of shocks and the policy response to such shocks. Neither the financial crisis nor Covid-19 are ‘black swan’ events – an ‘unknown unknown’ that is unimaginable because it is outside the realm of possibility. Nor are they low probability events, extreme observations from a known probability distribution.

Rather, they are ‘known unknowns’, something that is likely to happen at some point but unlikely to be predicted with any degree of certainty. During the Great Moderation, there were warnings about the build-up of debt and the dangers posed by a combination of loose lending and over-leveraged financial institutions (Rajan 2005; Baker 2006) that ended up leading to the crisis and the Great Recession. Both the financial crash and the coronavirus crisis are radically uncertain events that plunged the world into a state of radical uncertainty (King and Kay 2020). Although outside the range of past experience, we know the possibility of such occurrences even as we ignore the probability of their actual incidence.

Since uncertainty is a fundamental reality of both the economy and social life, policy makers – and political decision-makers – need narratives to make sense of numbers. Regardless of the use or otherwise of algorithm-engineered data, good decision-making requires a robust conceptual framework. Transformative policies depend on the persuasive power of the underlying narrative backed by sound theories and concepts as well as empirical evidence. Judgement is key as it enables informed decisions about rival models or sets of data based on both history and theory. Especially in an epidemiological emergency, politics cannot be about facts as if they were somehow separate from, let alone more fundamental than, interests or values (Crick 1992). It is about decision allied to judgement about ethical choices. When Covid-19 was first declared a pandemic, the political and moral questions focused on the relative virtues of sustaining the economy versus protecting immediately threatened lives. The natural sciences have no comprehensive answer to these

questions, nor does political science modelled on physical laws and underpinned by instrumental rationality. Addressing these questions is a matter not for abstract theory but for politics defined as a set of practices embedded in the relationships and institutions of a polity. As the following sections suggest, evidence-based policy needs to be corrected and complemented if it is to make a positive contribution to the process of economic reconstruction and recovery post-Covid.

2. The rise of evidence-based policy

Much of public policy has in recent decades been driven by the idea of evidence-based policy – policy rooted in the principles of social science and, more specifically, empirical validation based on social and behavioural science. The field of public administration, for example, should follow "the formal theories, models, methods, and data of the social and behavioral sciences to study governmental processes" in order "to develop a body of empirical knowledge concerning what works and why" (Hill and Lynn 2004, 5). At first, this might sound rather innocuous as it amounts to a call for "a greatly enhanced focus on empiricism and rigorous quantitative approaches" (Gill and Meier 2000, 195).

Yet the assumptions underpinning such an expansive social science approach to public policy can be rather radical and open to question. For instance, building on the writings of Herbert Simon, there are those such as Kenneth Meier (1997, 195 [original italics]) who claim that public administration research should become "*the* science of the artificial for both politics and administration". This assertion is part of

a wider call for more bureaucracy and less democracy, as Meier puts it, which in turn plays into contemporary discussions around the erosion of democratic politics and the populist backlash against technocracy (e.g. Mair 2013; Mounk 2018; Lind 2020; cf. Pabst 2019).

Nor is this limited to theoretical conceptions of public policy. UK politics and policy-making over the past two decades is a case in point. In opposition, New Labour developed the platform 'what matters is what works' – the notion that rationality and pragmatism are the best answer to ideological fanaticism and a politics of vested interests. In government, New Labour championed evidence-based policy-making in an attempt to end what it called decision-making dominated by ideology. Based on a White Paper published in 1999 and entitled 'Modernising Government', the first Blair government (1997-2001) advocated for central government to "produce policies that really deal with problems, that are forward-looking and shaped by evidence rather than a response to short-term pressures; that tackle causes not symptoms" (Cabinet Office 2019). This commitment laid the foundation for the What Works Centres, consisting of ten sector-specific bodies that are dedicated to evaluating policies in light of empirical evidence. The 'What Works Network' encompasses approximately £200bn worth of public policy decisions.

Twenty years after the White Paper and faced with the twin shocks of 2008 and 2020, it is appropriate to reflect on some of the successes and the limitations of evidence-based policy. It has worked in cases where empirical evidence helps to devise new

measures that change individual behaviour. For example, in the West Midlands dangerous driving did not decline by sending letters with complex language about the law. Offenders still failed to pay their fines and went to court. Instead, photos of flowers and a teddy left on a lamp post close to the site of a car crash, combined with statistics about the number of children killed in the area, made a significant difference. This approach drew on the evidence suggesting that people are responsive to certain motivations – primarily saving lives rather than raising revenue through fines (there are interesting parallels with Covid-19 and the appeal to 'stay home and save lives' during the first lockdown). Letters with the revised content led to 20 per cent more fines being paid and 41 per cent fewer people ending in court, saving approximately £1.5 million in court fees per annum. Behavioural science-based policy has also reduced reoffending by about 20 per cent.

These examples are part of an approach to public policy called 'nudging' (Thaler and Sunstein 2008), which is an attempt to influence behaviour without introducing bans or altering economic incentives but rather by modifying the environment in such a way that automatic cognitive processes are triggered to bring about the intended outcome. Sometimes described as 'libertarian paternalism', 'nudge theory' has given rise to a number of 'nudging units' at the heart of government. This includes the US where Cass Sunstein led the White House Office of Information and Regulatory Affairs in the Obama administration from 2009 until 2012 and in Britain where, originally inside the Cabinet Office, the Behavioural Insights Team (BIT) led by David Halpern pioneered many interventions to induce people to behave in a manner

that is individually and socially superior. Among the successful trials of the BIT are the following:

- using social norms to increase tax payments;
- boosting fine payment rates through personalised text messages;
- using lotteries to increase electoral participation rates;
- encouraging charitable giving in wills;
- introducing personal commitment devices in Jobcentres;
- increasing loft insulation installation.

As Halpern (2009) himself argues, the novelty of behavioural science-based public policy is not so much the nudging intervention itself as the rigorous testing of a particular policy's efficacy and efficiency. The approach involves designing different 'nudging messages' and testing them against one another in order to ascertain which is most effective and efficient. In short: "vary, test, learn, repeat" – an experimental method in action using randomised controlled trials (RCTs) adapted from natural science in order to establish whether a target population fares better or worse under a specific policy intervention than a control group does without the same intervention (Haynes *et al*. 2012). The objective is to use unbiased reasoning, based on empirical evidence, to conduct policy more effectively and thereby use taxpayers' money more efficiently.

3. Evidence-based policy in question

However, there are a number of fundamental problems with evidence-based policy, especially behaviour science-based policy. It is useful to distinguish between, first of all, internal tensions and contradictions and, secondly, external limitations and

failures. In relation to the former, one key problem is that evidence is complex and contested, which limits its applicability to policy-making in a partisan political context. As Paul Cairney (2016, 27) argues, “there’s just too much evidence out there for anyone to consider” and “policy-makers have too many problems to pay attention to, too many solutions to consider, and too many choices to make, based on more information that they can process”. For these reasons, policy makers will make a selective use, adopting one specific criterion of efficiency and effectiveness or basing their decision on a particular piece of advice, which means that evidence risks being subordinate to ideology or interest after all. Examples include the Private Finance Initiative in the UK or the repeal of the Glass-Steagal Act under the Clinton administration.

Another potential flaw is the so-called replication problem whereby a much-tested solution in one context with specific variables does not translate into a policy programme in another context with different demographics or socio-economic factors. One example is the Nurse-Family partnership in the USA – a home-visiting initiative pairing nurses with pregnant women in low-income families, which worked very well in California but not in other parts of the US or the UK. The costs involved in large, multi-site trials that would be required to test the particular policy likely outweigh the benefits of a nudge-type intervention rather than alternative approaches.

Perhaps the greatest inner contradiction is what Jerry Muller (2019) calls the ‘tyranny of metrics’ – giving all the power to detached researchers and policymakers at the

expense of frontline workers and users, i.e. parents, patients, passengers, etc. Evidence-based policy risks leading to an over-reliance on data and metrics that are disconnected from the everyday experience of workers and citizens whose needs and interests cannot always be measured or managed. Some of the examples Muller cites in support of his scepticism about evidence-based policy are taken from the UK:

> When the National Health Service decided that a major problem was that people were having to wait too long to be admitted to emergency wards, they declared that hospitals would be evaluated based on to what extent patients were admitted within four hours. Some hospitals responded by having the ambulances with patients circle around the hospital until they could be admitted within the four-hour window. People in their homes were waiting for ambulances to pick them up, while they were circling around the hospital in order to help it meet this metric. There are infinite varieties of gaming of that sort that occur. Someone who is very far away from the actual practice – some civil servant whose knowledge of a particular practice is not extensive – is going to try to monitor and come up with a set of criteria to measure. Decisions should be made by people who actually know what's going on (2019, 116-17).

In relation to external limitations, one particular problem is the logic of individual choice underpinning evidence-based policymaking, including nudge-type approaches. Enhancing personal freedom is an important objective of good public policy, but as the social theorist Zygmunt Bauman argues, the promise of ever-greater choice fails to recognise that "the conditions under which choices are made are not themselves a matter of choice" (Bauman 2008, 72). Increased choice presupposes that everyone can exercise individual liberty equally when in reality existing inequalities severely

constraint personal agency. It also assumes that free choice reflects people's preferences. Yet recent research shows that there is a wider shift away from a post-1979 freedom consensus to a post-crisis consensus anchored in a demand for greater security. According to the findings by the think-tank Onward, 65 per cent of voters prefer a society that "focuses on giving people more security", compared with 35 per cent who want a society that "focuses on giving people more freedom" (O'Shaughnessy and Tanner, 2019). A majority of voters now look for public policy that will protect them and their families, and provide a greater focus on place, community and security – the economics and politics of belonging (e.g. Sandbu 2020; Collier and Kay 2020). This demand for security rather than freedom explains in part broad public support for the various lockdowns and restrictions on individual liberty to prevent the loss of life from Covid-19 – even if the trade-offs between lives and livelihoods have not been discussed as much as the threat from the virus.

A yearning for stability and a sense of belonging points to another flaw of evidence-based policy that is grounded in behaviour science: the role of non-quantitative and non-quantifiable evidence – evidence that could not be generated using RCTs or other forms of predominantly empirical research. For example, policies that are concerned with enhancing social justice or welfare require qualitative and other forms of evidence, and they involve philosophical reasoning or ethical judgement. What makes a person – his or her rights and responsibility, or individual and collective utility, or some substantive sense of personal and mutual flourishing? How do we organise relations in our polity, economy and society – primarily based on the

institutions of the state, or of the market, or of civil society? Founded upon a social contract with individual rights or a social covenant defined as a partnership between generations regions and groups?

All these questions involve notions of justice – how we should treat one another, how laws and contracts should be designed and how interpersonal relations should be organised. Different concepts of justice underpin what we value individually and as groups, and they shape the way public policy decides between competing interests. Evidence-based policy either implicitly assumes a particular conception of justice focused on rights or utility, or else it is silent on these core questions. Yet the interpretation of empirical evidence requires some conception of well-being and the public good beyond quantifiable measures as economic growth or GDP (Coyle 2015; Pilling 2018). Just as modelling based on data is important to advance knowledge and understanding of socio-economic processes, so too normative theories and concepts are needed to join up decision-making and improve public policy.

4. Rethinking evidence-based policy

As economic and social scarring are linked (Küçük et al. 2020), public policy responses to the financial crisis or the Covid-19 pandemic cannot be limited either to the economy or society but have to integrate both. Policy-making has to be less siloed and more holistic – bringing together the economy, culture, geography, demography and social class (e.g. Coyle 2020a). Public policy also needs to question the logic underpinning the dominant approaches, including public choice models that draw on

rational choice and utility maximisation, or New Public Management (NPM) models that import business criteria from the private sector into the provision of public services. Specifically, this means rethinking the economic, political, social and anthropological assumptions, including normative questions such as

- should we continue privileging efficiency over quality?
- should we continue privileging individual choice over common purpose?
- should we continue privileging the assumptions of selfishness and greed over generosity and a concern for shared benefit?

A more holistic approach to policy requires a focus on governance and institutions. Much of economics and political science focus on either the central state or individuals/firms in the marketplace in order to understand economic growth. Missing from both disciplines is the wide array of intermediary institutions – from local government and city regions to professional associations, trade unions, chambers of commerce and universities. In the current context, the UK's institutional architecture is in flux. Both Brexit and Covid-19 will likely lead to new institutions while approaches to governance are also changing. All this takes place against the backdrop of global uncertainty and new international initiatives such as post-Covid coordination of economic stimulus initiatives with important implications for public policy-making.

Arguably, the UK suffers chronic underinvestment in certain sectors and the fragmentation and instability of its institutional ecology is to a significant extent the

outcome of dysfunctional governance. Conversely, stronger institutions at local, regional and national levels – combined with more joined-up and coordinated decision making over the longer term – are necessary for higher and sustained economic growth. Drawing on institutional and 'relational' approaches (e.g. (Acemoglu and Robinson 2012; Coyle 2020a; Rajan 2019), it is the case that the design of institutions and policies is critical to economic growth and social cohesion – based on assumptions of encouraging the cooperative outlook of human beings, informal institutional norms constraining bad behaviour and the importance of non-market and non-state institutions.

Politics, as well as institutions and governance generally, really matter to public policy – both in general and in particular relation to the short- and long-term political context. Policy design and policy history matters – how structures and orthodoxies have emerged and been formed. How often they have been chopped and changed, thereby becoming themselves a factor of uncertainty rather than a source of stability – as is manifest with recent decisions to cancel the Autumn 2020 budget and postpone the Comprehensive Spending Review. Finally, public policy needs to have tangible effects on the things that people really understand and value, such as wages, incomes, access to good products and services like decent housing, schools or hospitals. And policies also matter for less obvious things that might be less 'rational' – vibrant high streets, stronger, communities, a sense of belonging to particular places and people (Collier and Kay 2020; Sandbu 2020).

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