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University of Bath

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**Scientists Advise, Ministers Decide? The Role of Scientific Expertise in UK
policymaking during the coronavirus pandemic**

Nikolas Koch and Bill Durodie

Department of Politics, Languages and International Studies, University of Bath, UK.

Abstract

COVID-19 has been a transformational crisis, uprooting everyday lives and causing some of the most significant health, social, and economic challenges in recent memory. Similarly, coronavirus has also forced significant political change, refocusing attention on politics and policymaking structures during a time of crisis. This shift is exemplified by scientific advisers' role at the forefront of governmental decision-making. Scientific advice has provided vital knowledge and insight into the government's pandemic responses.

However, the coronavirus pandemic has also highlighted the complex nature of combining science with politics, as well as the difficulties involved in distinguishing between expert advice and political or moral choices. Such complexity warrants a reconsideration of science's impact on policymaking. Namely, from a long-term view, the growth of governmental experts started well before the coronavirus pandemic. Partly, this proliferation is driven by a desire to improve policymaking, given that there is a clear need to effectively consult, consider, and act on the advice of experts in all fields of government.

Nevertheless, societal changes like a declining trust in government also mean that expert advice can increasingly be used as a tool to legitimate or depoliticise debates. Considering the complexity of fighting a global pandemic, this belies that advice must be effectively scrutinised within broader contextual or operational considerations – a government cannot simply 'follow the science'. Coronavirus highlights the need for a renewed focus on the interplay of expertise and policymaking, considering who, why, and on what basis governments are advised – as well as what lessons they draw from it.

Keywords: *coronavirus, experts, politics, policymaking, science.*

Introduction

The coronavirus pandemic has been one of the most significant public health and policymaking challenges in recent memory. At the time of writing, restrictions have been placed on everyday life in the UK since March 2020 to slow and stop the spread of coronavirus. Defined by what has become one of the most symbolic words of 2020, people spent much of the last year in 'lockdown' – living under stringent restrictions on travel, social interaction, and access to public spaces (*BBC News*, 2020b). Nevertheless, despite significant constraints on everyday life, the UK has recorded a high death rate, whether measured as directly attributable deaths or by excess mortality (Anderson *et al.*, 2021). By March 2021, the UK had recorded just under 150,000 deaths mentioning coronavirus on death certificates (Conway, 2021).

Besides its significant health, social, and economic consequences, coronavirus has also transformed democratic and political norms. The health crisis has considerably impacted daily lives concerning restrictions on freedoms and through the implementation of public policy responses in reaction to the pandemic. Similarly, COVID-19 has affected democracy directly regarding the restrictions placed on elections globally, as well as indirectly by challenging usual democratic procedures and developing new decision-making structures (Afsahi *et al.*, 2020; Landman and Splendore, 2020). Concerning the latter, during the last year, particularly the role of scientific expertise in informing political decision-making has become evident. In the UK, the government's mantra has argued that it is 'following the science' to protect the country (Devlin and Boseley, 2020). However, the politics of scientific expertise and its use by the government is considerably more complex than such a supposedly simple process. COVID-19 can be considered a 'post-normal' risk problem given that 'the facts are uncertain, values are in dispute, stakes are high, and decisions are urgent' (Wardman and Lofstedt, 2020, p. 834). In addition, how the government has received,

responded to, and used scientific information during the coronavirus pandemic has been almost as important as the quality of expertise itself.

Therefore, in view of the coronavirus pandemic, it is vital to re-examine the interrelationship between science and politics. Science and expertise should have a central role in advising and informing decision-makers. Indeed, studying how scientists advise politicians has been a long-standing topic of academic debate (Habermas, 1968; Weingart, 1999; Hargreaves and Ferguson, 2001). However, coronavirus also highlights the potential politicisation of expertise, considering who, why, and on what basis politicians are advised – as well as what lessons they draw from it. Moreover, coronavirus has intensified concerns about how to combine both expertise and transparency in political decision-making. In particular, an effective balance between expert-led decision-making and democracy must be sought during times of crisis. Scientific advice should inform government, thereby augmenting democracy and political discussion. Instead, appeals to expertise have been used as a political tool to gain legitimacy and the public's trust. This use of scientific expertise underlines broader concerns regarding the decline of trust and increased suspicion in traditional institutions of power, including in the government itself ('The Reith Lectures, Onora O'Neill: A Question of Trust: Spreading Suspicion', 2002). Today, the consequence of this decline of trust is that faced with an emergency, governmental authority is based on a mixture of technical expertise, official authority, and democratic consent.

This paper considers the impact of science's growing significance in politics and expert-based policymaking during the coronavirus pandemic. Recent developments warrant a reconsideration of how expert advice is used in politics, as we draw lessons from both the coronavirus pandemic and longer-term developments in British society. We contend that a reconsideration of how to maintain a productive relationship between policymaking and expert advice is necessary, especially regarding how to safeguard the independence of scientific advice, and how this can be effectively combined with democratic values like

legitimacy, accountability, and transparency. In turn, the article examines three issues – the use of scientific expertise as a political tool, long-term developments affecting the growth of expertise, and the issues of political accountability and transparency these changes have caused.

1. Legitimation through Scientific Advisers

Experts have been central to effective governmental responses during the coronavirus pandemic. Many scientific and medical advisers are now as recognisable as the politicians they advise, from America's Anthony Fauci to the UK's Chris Whitty or Sweden's Anders Tegnell. Scientific advisers are vital in crisis responses given that they possess technical knowledge which politicians lack, particularly in highly specialised fields like virology or epidemiology. However, the current pandemic has also blurred conceptual boundaries between scientific advice and political decision-making. During the coronavirus pandemic, scientific advisers have also been used to endorse political action. Most simply, this is communicated in every government press conference, when two representatives of 'science' flank the Prime Minister or another cabinet minister, most often the government's Chief Scientific Adviser (CSA) and Chief Medical Officer (CMO), Patrick Vallance and Chris Whitty. As Villegas (2020, p. 354) notes, press conferences in America during the pandemic have functioned as dramatised performances that affirm cultural commitments, validate institutional action, and act as sanctuaries for collective trauma. Similarly, UK press conferences have a symbolic role – to provide information, but also to emanate the government's mantra that it is not acting politically but 'following the science'. For example, the extensive use of scientific modelling data during press conferences exemplifies this devotion to 'the science' (McLay, 2020). Understandably, the government has attempted to support its actions using statistics and evidence, given that providing justified scientific explanations is a vital leadership strategy to gain public credibility (Wardman, 2020).

However, throughout the pandemic, watchers and listeners of daily press briefings have at times also faced 'number theatre' or 'chart theatre', inundated with a barrage of official statistics and graphs (Freeguard, 2020). At the critical moment when Britain's second lockdown was announced on the 31st of October 2020, sixteen slides of information were presented in only twelve minutes (*Coronavirus press conference (31 October 2020)*, 2020). Scientific advice can inform better policymaking by providing a rational and methodological approach. Nevertheless, this approach only works if the data, methodology, and conclusions drawn from this scientific data are appropriately scrutinised by government advisers and citizens. A co-authored article by Chris Whitty (CMO) and Patrick Vallance (CSA) itself has stressed the importance of transparency to encourage open debate of scientific advice (Donnelly *et al.*, 2018). As Wardman (2020, p. 1105) considers, information transparency is ultimately a difficult compromise between issues like accessibility, accuracy, and completeness. However, if data presented by the government is rushed, unconvincing, or poorly presented, it can also seem like a veil to provide legitimacy rather than encourage open and democratic debate.

Indeed, claiming scientific advice to government is an impartial, simple, and purely rational exercise presents a simplistic view of decision-making. The idea that one can merely 'follow the science' is a reductionist view of complex scientific and policymaking problems (Sasse, Haddon and Nice, 2020). In reality, as previous crises like Britain's BSE (bovine spongiform encephalopathy) outbreak highlight, various socio-economic, political, cultural, or technical considerations influence expert advice to government (Millstone and van Zwanenberg, 2001, p. 101). As the Phillips inquiry after BSE noted, an inherent tension also exists when distinguishing between the remit of scientific advice and policy decisions reserved for ministers (Sasse, Haddon and Nice, 2020, p. 13). Furthermore, although scientific risk assessments are conducted with the best intentions, they can still be affected by the basic attitudes and value judgements with which they are made (see Durodie, 2017).

In a multiplicity of ways, science not only affects society, but society also affects science (Durodie, 2002).

Similar complications affect the UK's current response to coronavirus. Examining pure data only informs pandemic policymaking to a certain extent, beyond which it must also be combined with practical considerations. For example, epidemiologists realised early during the coronavirus pandemic that care homes needed to be shielded, but not always the full practicalities of implementing these measures ('Lockdown 1.0 - Following the Science?', 2020). Equally, when suggesting that scientists or the government can present 'the data' in favour of specific policy decisions, the methodology, basic assumptions, and conclusions of such information should be publicly accessible. In hindsight, numerous scientists involved in SAGE (the government's Scientific Advisory Group for Emergencies) accepted that their initial response recommendations to coronavirus were only as good as their data – and this was imperfect at best ('Lockdown 1.0 - Following the Science?', 2020). Most importantly, differences in modelling or analysis meant that the same data or models supported multiple conclusions (for example, Taleb and Bar-Yam, 2020). In this context, it is clear why, as data changed in the early stages of the pandemic, SAGE's discussion of infection 'mitigation' was dropped for a more stringent 'suppression' (Heffer, 2020). It also explains why countries around the world have adopted their own responses to the pandemic, each based on their respective contexts, estimates, and modelling assumptions. Science is not a dogmatic, unchanging catechism, especially when considered as a 'post-normal' risk problem (Wardman and Lofstedt, 2020). It is simplistic to portray scientific advice to government as an impartial, straightforward, and purely mathematical exercise to 'follow', rather than a contested debate.

2. Scientific Advisers: a crisis of authority

Then, what explains the increasing use of science advice in government? Considering the long term, the growing influence of scientific advisers and expertise in government are

trends that reach beyond the current pandemic. Previously, expert advisers have been used in crises ranging from the UK's BSE or foot-and-mouth outbreaks to the Joint Intelligence Committee in the run-up to the 2003 Iraq War (for example, see Millstone and van Zwanenberg, 2001; McConnell and Stark, 2002; Freedman, 2020a). Expertise plays a valuable part in government, applying what is often highly specialised knowledge to societal problems. As the Government's Official Guidelines on the use of Scientific Advice note, 'it is difficult to think of a policy area, or a government department, where science cannot make an important contribution' (Government Office for Science, 2010). Almost all Whitehall departments now have a Chief Scientific Adviser (Gov.uk, no date). Most importantly, society trusts in scientific expertise. The authority of expertise rests on a shared belief in scientific rationality that makes conclusions from 'objective' data that is evaluated, scrutinised, and rigorously controlled. It is hardly surprising that in polling during the pandemic, Chris Whitty and Patrick Vallance's approval ratings have never fallen below 20% (Savanta Group, no date). In contrast, Boris Johnson has polled negative approval since July 2020. Scientific experts generally command significant public respect as knowledgeable specialists in their field, justifying their use in government. More than half a decade ago, Yaron Ezrahi (1971, p. 121) already noted this 'capacity of science to authorise and certify facts as a potent source of political influence'. Similarly, the UK government increasingly uses expertise in policymaking.

The growth of 'science' and expert advisers in British politics must be considered in the context of broader political and social changes. Primarily, the increasing complexity of political issues and a desire to legislate effectively has increased reliance on technical expertise. However, society is also undergoing a significant transformation, finding its identity and place in the twenty-first century. Trust in traditional figures of authority like politicians, the church, or the media is declining. Alone during the coronavirus pandemic, in November 2020, only 38% of respondents trusted in the government's response to coronavirus, down from 69% the previous April (KCL Policy Institute / Ipsos Mori, 2020).

Over the longer term, while 38% of voters trusted the government to put the nation's needs first in 1986, this decreased to 17% by 2013 (Uberoi and Johnston, 2019, p. 6). The state of British democracy is in distress. In this context, expert-based policymaking can provide an opportunity to solve issues in a depersonalised, instrumental, and technical rather than political manner. Raised above political negotiation, objective knowledge or facts can be used to guide discussion. Additionally, if politicians fear discussing an issue with the electorate or need extra legitimacy to justify their actions, they can also appeal to this expertise or delegate to experts. Essentially, expertise has become an alternative or additional source of legitimacy for government action.

Comparatively, this change is not unique to the United Kingdom. Previously, scholars have examined how, within the EU, expert knowledge is also used as a 'commodity' to shape the political agenda and legitimise actions (Colli and Kerremans, 2020, p. 70). Research has noted a European trend towards the 'democratisation of expertise' using stakeholder and public participation to create policy, but also an increased use of 'depoliticised' policymaking set firmly in the domain of expert knowledge (Maasen and Weingart, 2005). While based on understandable motives to provide legitimacy and competency, in the EU, such tactics have been criticised given its supposedly technocratic tendencies (Radaelli, 1999). These trends are also highlighted by what Carrozza (2015) terms the 'democratization of expertise' and the 'scientization' of politics. Similarly, in the UK, many major issues of our time – the climate crisis, natural catastrophes, or the coronavirus pandemic – are also presented scientifically. However, while emergencies like coronavirus or the climate crisis are scientific events and require evidence-based responses, governmental action also involves moral or political choices. Nevertheless, mired in a crisis of vision and direction, expertise and science may become a tempting legitimating tool that, at times, seems to supplant and avoid rather than supplement the need for democratic debate.

Today, British politics is increasingly replete with 'scientism' – the application of scientific ideas, methods, and practices into matters that are also of human and political concern. For example, signatories of the Great Barrington Declaration, a petition opposing government lockdowns during the coronavirus pandemic, base their arguments on their own expertise and science ('Great Barrington Declaration and Petition', 2020). In addition, the politicisation and production of scientific 'expertise' is an increasingly troubling issue in climate politics (Sharman, 2015). Sometimes, the difference between scientific discussions and political debates is now hard to distinguish. Yet, the use of science in politics has increasingly politicised science rather than merely informing policymaking. Indeed, whether this mixing of politics and science is always beneficial to democratic debate is questionable. For example, when announcing a 10 pm curfew on hospitality businesses, Boris Johnson portrayed the changes as an evidence-based measure to contain the spread of coronavirus. However, official SAGE minutes from the 21st of September stated that scientists had 'low confidence' in curfews' impact on transmission (SAGE, 2020, p. 7). Conversely, critics of the government were incensed that the Prime Minister decided to 'ignore the science' on whether to have a second 'firebreaker' lockdown (Reicher, 2020). While SAGE recommended a 'circuit-breaker' lockdown on the 21st of September, the government waited another three weeks before implementing a second lockdown – leading to significant criticism from opposition parties (Sample, 2020). Expert advice and its use or misuse has increasingly become a tool for point-scoring, as scientific facts are deployed as another political tactic. As Pérez-González (2020) points out, this selection and weaponisation of scientific evidence also occurs in climate policy debates. Such conflation risks misusing society's trust in science as well as undermining the ideals of a rational, scientific method for political gain. Rather than using science to refine democratic debate, it can become a method to obfuscate and dominate them. Portraying political or moral choices as confirmed by science makes it harder to debate them – for who could disagree with facts and scientific expertise rather than political opinions?

3. Who is accountable?

Although resorting to science can depoliticise policymaking, it also entails profound consequences for democratic accountability. Politicians are elected to make complicated societal decisions and engage in public debate, but scientific advisers are not. Indeed, as Chris Whitty stated this summer after the Dominic Cummings affair, the ‘desire to not get pulled into politics is far stronger on the part of Sir Patrick [Vallance] and me than it is in the Prime Minister’ (Mason and Walker, 2020). Formally, scientific advisers have no statutory role in the UK and report to the Cabinet Secretary and Prime Minister (Nice, 2020). Practically, the UK’s scientific advisers are also a conduit for advice from the scientific community (Government Office for Science, 2010). However, the tendency to simply delegate straight to scientific advisers and expert committees like SAGE during emergencies risks undermining the supposed separation of science and politics. Previously, the Phillips Report already noted how scientific advisers were put in the decision-making limelight during Britain’s BSE crisis (The Lancet, 2000). Understandably, the distinction between advising and deciding policy is often blurred.

On the one hand, it is useful and practical to be guided by expert advice in a crisis. Regarding many issues, it is vital that politicians increase their use of evidence and scientific guidance in policymaking. Nonetheless, politicians have a clear role in integrating scientific advice with other considerations like operational issues or socio-economic concerns. Ministers, officials, and politicians cannot simply be ‘passive recipients’ of expertise (Freedman, 2020b). If leaders unquestioningly resort to experts’ authority, they may try to be relieved of responsibility for the choices made, especially if they are unpopular, ineffective, or have unforeseen negative side effects (Lavazza and Farina, 2020). Besides public scrutiny by the press and the electorate into the government’s handling of coronavirus, Boris Johnson has already outlined that there will be a future inquiry into the coronavirus pandemic, which is planned for spring 2022 (*BBC News*, 2021). Therefore, it is hardly surprising that from the outset of the pandemic, Johnson has ‘hugged the experts to the

extent it is almost impossible to get a cigarette paper between them' (Flinders, 2020). However, an excessively intimate or unquestioning relationship between politicians and experts undermines both effective leadership and democratic accountability. Above all, the question of who, on what advice, and why a decision has been made should be clear. Instead, at times the opaque manner by which the government has acted on expert advice during the coronavirus pandemic undermines the transparency and openness required for effective political accountability (concerning transparency, see Wardman, 2020, p. 1105).

Namely, by deferring to experts, politicians can deflect that they were merely 'following the science'. This trend to delegate has longer-term roots, affecting numerous parties and governments. For example, combined with structural changes in politics, such as the decline of party membership, politicians are now judged more on their record and personal performance rather than ideological considerations (Weaver, 1986, p. 382). Therefore, politicians may increasingly avoid problems and delegate or deflect blame onto expert advisers for issues that can be politically catastrophic. Likely, this explanation is important in understanding the growth of expert advice in British government. In total, there are at least seventy scientific advisory committees across Whitehall that advise on a multiplicity of policymaking areas (Sasse and Haddon, 2018). Increasingly, there has been a shift in decision-making and responsibility from politicians to experts.

In this context, it is hardly surprising that when the government has curtailed civil liberties to an unprecedented extent, it has presented its actions as justified by the larger ideals of rational science rather than mere politics. Yet, concerning the state of British democracy, this is potentially a profoundly worrying trend. Traditionally, governments have received their legitimacy and authority through Parliament. Equally, governments and ministers can be held accountable by MPs and, ultimately, the people. However, as Lady Hale, the former president of the Supreme Court, notes, in March 2020, parliamentarians initially 'surrendered' their constitutional role by authorising sweeping government powers in

response to COVID-19 (Bowcott, Stewart and Sparrow, 2020). For much of the pandemic, parliamentary comment or criticism has been muted and only particularly consequential since late summer 2020. Even the little scrutiny available to MPs is hardly sufficient when compared to the significance of legislation passed. For example, until September, Parliament could only vote to continue the emergency measures of the Coronavirus Act in block, with no chance to retain or repeal individual measures ('Coronavirus Act 2020 (Review of Temporary Provisions)', 2020). Notably, this issue of parliamentary scrutiny was serious enough for Lindsey Hoyle, the Speaker of the Commons, to sternly criticise how the government had 'shown contempt' in informing and deliberating restrictions before the House of Commons (*BBC News*, 2020a). Indeed, the circumvention of parliamentary processes belies the (relative) success with which legislatures worldwide like the House of Commons have adapted to the pandemic through mechanisms like hybrid debates and voting (Afsahi *et al.*, 2020). Undoubtedly, the government acted in what it deemed the national interest when prioritising expert-guided legislation instead of parliamentary scrutiny. Nevertheless, it is significant that ministers have sometimes felt little need to consult democratically elected representatives during the coronavirus pandemic. For example, major changes in lockdown restrictions have been passed as a statutory instrument that Parliament must only approve after their implementation (for example, Hancock, 2020). This use of emergency legislative powers continues a year into the COVID-19 pandemic, despite the manifest changes in circumstances and information available compared to its first months. In this context, the government's use of scientific advice and its democratic accountability, transparency, and willingness to debate coronavirus measures has often left much to be desired.

Conclusions

Ultimately, the growing use of experts in government is illustrative of broader trends in British democracy rather than merely a short-term aberration. It is vital that scientific advisers should hold an essential role in government, given their unique insights into

scientific and social problems, both during a pandemic and in everyday policymaking. However, the growth of scientific advisers and 'evidence-based' policymaking is also rooted in long-term changes to the state of British democracy. The coronavirus pandemic shows that experts' role in government is broader than merely advising or informing government on specialist issues. Instead, they are also used to legitimate political action and have a far more prominent role in decision-making than previously suggested. Despite Michael Gove's much-quoted statement, the government has not yet 'had enough' of experts (Mance, 2016). Faced with a crisis of governmental authority, the ideal of science, which is trusted by society, also provides a fruitful justification and legitimation for policymaking.

If properly utilised, scientific and expert advice are essential tools to aid policymakers. By virtue of their insight and knowledge, experts play a central role in effective government decision-making. However, in the context of declining interest and trust in politics, expertise risks being misused as an alternative or additional source of legitimacy for political action. Therefore, in the aftermath of the coronavirus pandemic, the nature and system of expert advice in government requires urgent reconsideration to ensure accountability and minimise the political 'use' of science. This would safeguard both the credibility of expertise and democratic transparency.

Most importantly, scientific advice for issues like COVID-19 should not be portrayed as an unquestionable, dogmatic catechism to 'follow' which cannot be interrogated as much as the political decisions it informs. In this regard, a 'post-normal' perspective of science where 'facts are uncertain, stakes are high, and decisions are urgent' seems valuable in realising and assessing the political and moral context of science (Wardman and Lofstedt, 2020, p. 834). Ultimately, as a representative democracy, parliament and the people must scrutinise, decide, and take responsibility for how they wish to balance their freedoms versus their health. Instead, during the coronavirus pandemic, the government has at times made decisions with limited democratic oversight and justified only through their commitment to

'following the science'. However, COVID-19 shows that science alone is not an alternative justification for policy – expertise is best utilised when it supplements, rather than substitutes politics. To suggest otherwise risks harming both science and democracy.

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