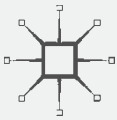
HOW DOES GOVERNMENT LISTEN TO SCIENTISTS?

PALGRAVE POLICY ESSENTIALS

Claire Craig



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palgrave
macmillan

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ISBN 978-3-319-96085-2 ISBN 978-3-319-96086-9 (eBook)
https://doi.org/10.1007/978-3-319-96086-9

Library of Congress Control Number: 2018950338

Cover illustration: oasis15 /Getty Images

Printed on acid-free paper

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

To Dave, John and Mark; and also to all the women in all the multiverses who have already been UK Government Chief Scientific Advisers and all the ones in this universe who will be soon.
With thanks and love to my parents, Yvonne and Richard, to Sukey, Helen and Cathy, and to Chris beyond words.

Preface

This book emerges from a passion for science and for democratic government, and from respect for scientists, policy-makers and the usually unnamed people who work closely with them to enable them to do what they do best. It is intended for a reader interested in any of those roles.

It aims to do two things. The first is to help spread the knowledge of practice and theory that is well established in many places but still patchy in others, even more consistently across the landscapes. For example, it should no longer to be possible for the Minister to be surprised when they find the scientist to be comprehensible and interested. Nor should it any longer be possible for the scientist to think that science alone will determine the answer to a policy question. Neither the Minister nor the scientist should, knowingly or inadvertently, allow disputes about narrow points of science to act as lightning rods to distract society from dealing with tougher issues that are less comfortable to debate. The growing body of practical lore on science advice can also be more clearly linked to the various theoretical frameworks in order to help good practice spread more rapidly.

The second aim is to build on that established knowledge by drawing together insights from more sectors and disciplines than are typically included. The practice of providing scientific advice to government has had time to mature; practitioners and academics can reflect on experience of the evolution of evidence and public reasoning in areas from climate change and pandemics, to GM crops and Artificial Intelligence.

It is also possible now to consider the relationships between science and government in the context of futures thinking, narrative studies, public

engagement and the behavioural sciences. We are on the cusp of being able to model much more of the world: to create better computational and other models of our social and physical systems. Digital humanities and scholarly insights may, like the introduction of the telescope or microscope, enable us to see previously invisible underpinnings to our familiar worlds such as the ways narratives affect collective anticipations about the future and decision-making. Models and narratives can both be seductive and society needs to have the capacity to reflect on how it is using them in the process of public reasoning.

If, as is the case, every academic discipline is potentially relevant, every area of policy potentially at stake and all knowledge is contingent and uncertain, the discussion can rapidly spiral out to light years of physical space, millennia of historical time and the interconnectedness of the global population and planet. The book retains its focus through the discipline of embodiment. In the end, a human being has to make a decision. In government, the decision-maker usually has to account publicly for their decision. That forces a confrontation with the evidence and with the realities of making a decision about the future now, when observational evidence can only be about the past. It is a White Queen moment, when life is lived backwards as in Alice's Looking Glass world in which the pain (or the pleasure) of making the decision is felt today, even though the real-world outcomes will not happen until later.

Ultimately therefore the book is both about knowledge and about people. It is particularly concerned with specific decision-making by an individual in power, typically a Minister or a Mayor. Alongside the conceptual frameworks it considers what has sometimes been described as the craft skill of the practice of science in government, which depends on personal relationships, empathy and practical detail, as well as curiosity, open-mindedness and rigour.

The interface of science and government can be a lonely place to inhabit and thriving in it requires a willingness to be wrong, indeed to be wrong in many ways. Errors start with the slight loss of accuracy in describing a deep disciplinary concept which is essential to be able to communicate it to a wider audience, to the inevitably imperfect framing of a complex system or wrong judgement of the best moment to consider an important choice. The motivation is usually that being wrong in all these ways is still better than not to have attempted to bring science to bear in the first place. It is in this spirit that this project is undertaken and in the knowledge that in this context, as a former Chair of the UK's Climate Change Committee once said, "any statement that is perfectly true is not useful, and any statement that is useful is not perfectly true" (Turner, 2013). In

this spirit, too, the text includes references selected as starting points to further exploration, rather than comprehensive accounts of all of the most relevant literature.

The centre of gravity of the project, like its metaphors, is rooted in the natural and physical sciences. The text refers to science throughout. However, the starting point for considering what forms of academic insight may be relevant to any significant policy question is always that they all are. The natural language of policy-makers and, at least in the UK, their education and training typically appear to share more with the social sciences and arts and humanities than with other forms of knowledge. The tendency to take such links for granted may be one of the reasons there has been less theoretical examination of the ways such forms of knowledge affect policy outcomes.

It is particularly important to take stock of what we know now when it may be that we are, at least in the West, at some inflection point in the accepted roles of scientific knowledge and values, elites and the distribution of power. Yet while public debate asks what it might be to be beyond that inflection point in an area of the graph that is post-truth, post-expert, post-elite, post-normal, the figures still show that, in the UK, public trust in scientists to be scientists (whatever that means) is not falling.

Discussion about science in public life is ultimately nothing to do with CP Snow's two cultures of arts and science. There are multiple academic cultures and, if we are looking for binary distinctions in the twenty-first century, then they are probably rationality (or cognition) and sentiment (or emotion). The challenge is to enable both to play well-founded parts in public reasoning and decision-making.

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Reference

Turner, A. (Performer). (2013, February 27). *Distinguished Lecture, Public policy and the science base: Successes and failures.* Magdalene College, Cambridge, UK.