



Perspectives

What kind of socio-technical research for what sort of influence on energy policy?



Noel Castree*, Gordon Waitt

School of Geography and Sustainable Communities, University of Wollongong, NSW 2522, Australia

ARTICLE INFO

Article history:

Received 13 January 2017

Received in revised form 31 January 2017

Accepted 31 January 2017

Available online 8 February 2017

Keywords:

Environmental social science

Interdisciplinarity

Policy relevance

ABSTRACT

We summarise and take issue with Adam Cooper's analysis of the relationship between social scientific research and the formulation of energy policy. Cooper's case for 'socio-technical' energy research contains several empirical and logical flaws. We identify five points of weakness in what is intended to be a constructive critique. Though we share his concern that energy policy is less than ideal when lacking input from wider social science, we take a different view of why the problem Cooper identifies exists and, thus, what the appropriate solutions might be.

Crown Copyright © 2017 Published by Elsevier Ltd. All rights reserved.

Adam Cooper identifies a problem, diagnoses the putative cause and sketches a solution. He wants social scientific knowledge about energy use to be more influential in the formulation (and presumably, though he does not say so, the implementation, monitoring and refinement) of energy policy. We agree that energy policy, in the UK and beyond, should be more richly suffused with insights provided by "broader social science". However, we question whether Cooper's explanation and proposed cure are adequate to the problem he identifies. Before we challenge Cooper's analysis, let us summarise its essentials.

1. 'Under-socialised' energy policy: Adam Cooper's diagnosis and solution

Adam Cooper was the first Head of Social Science Engagement in the UK's Department of Energy and Climate Change (DECC, 2011–13). Prior to that he spent eight years working as a social scientist in other areas of British national government. Based on this experience he identifies a knowledge gap: despite a growing volume of social science knowledge about energy supply, demand and security, most of it fails to inform energy policy in the government circles Cooper previously moved in. This gap is regrettable since, as he rightly observes, the point of any and all energy systems "is entirely social". Ironically, it is mainstream economics – among the most 'under-socialised' of the social sciences – that has arguably

had the greatest relative impact on the discourse of energy policy over the decades. Even when socially contentious energy technologies like nuclear power have come to the fore, rarely have alternative framings of energy – for instance, hailing from anthropology or sociology – helped to set the political agenda within government or the public sphere.

Why does the knowledge gap exist and persist? Cooper suggests that "the goals of energy policy [are] . . . implicitly set out in physical science units". Regardless of whether the proverbial chicken or egg came first, the knowledge-policy link is here self-perpetuating. As Cooper sees it, physical scientists who research energy systems favour metrics (such as carbon budgets) that bracket-out the people who energy systems exist to serve. These metrics have come to shape policy aims to the extent that it's now 'common sense' among policy makers to look for research framed in unit terms when devising laws, regulations and procedures. As Cooper puts it, "To answer [policy] questions framed in these terms, answers *with* these terms are needed, or they can have no traction". Economics, and related analytical-quantitative forms of social science, fare well in this context because they can present the 'human dimensions' of energy in a generalisable unit form (such as household heating costs for different population segments). These 'social units' map well onto the familiar physical units used to quantify energy supply, efficiency of use and so on.

Has the wider social science of energy, which has achieved mass and momentum in universities in recent years, been culpable for allowing physical science and its social science 'twins' to dominate the research-policy interface? Cooper believes so. Too much of it, in his view, ignores the physical properties of energy and so

* Corresponding author.

E-mail address: ncastree@uow.edu.au (N. Castree).

is a sort of ‘immaterial’ mirror image of the largely ‘asocial’ energy research that currently informs energy policy. He demonstrates this by way of a content analysis of papers published in this journal, drawing a comparison with *Energy Policy*. This immateriality has also characterized the particular version of behavioral psychology that, in the UK, has lately come to supplement economics as a social science shaping policy debates about managing energy demand. Even social practice theory – an example of “broader social science” that ostensibly takes seriously materiality – fails, in Cooper’s view, to speak a ‘realistic’ language that might make sense to physical science energy researchers and to policy makers. On top of this, Cooper suggests that practice theory rarely enjoys exposure in policy circles.¹

In light of this analysis, Cooper argues that both mainstream and wider social science research into energy systems must undergo a paradigm shift. Currently, such research endorses the status quo – for instance, by only influencing policy on ‘end of pipe’ issues, such as people’s willingness to accept new energy technologies. What Cooper calls a ‘socio-technical’ approach would aim to be ‘symmetrical’ in focus, with knowledge ‘co-produced’ among cross-disciplinary teams of energy researchers. The energetic elements of actual or possible future social arrangements (e.g. at the level of dwellings) would be defined and quantified relative to a range of ‘human dimensions’ that reflected deep and varied investigations of how different people use, experience and value energy. This approach, Cooper argues, could yield new units of analysis for energy policy linked to new goals resulting from a richer interplay between physical science and a wider range of social science research into energy systems. Towards the end of his paper, Cooper provides some examples of the nascent paradigm from Northern Ireland [3] and Nigeria [4], among others. These examples, he implies, can perhaps serve as inspiration for many other researchers to follow suit and make their inquiries count in policy arenas. If ‘socio-technical’ research were to gain traction, Cooper argues, it would pluralize policy options and, in Andrew Stirling’s [5] terms, “open-up” what is thought to be possible and desirable in *both* a technical and a social sense, looking ahead.

2. Problems with Cooper’s argument

As noted earlier, we share Cooper’s desire to address ‘physics imperialism’ in energy research and policy. The production, supply, and use of energy, along with attendant externalities, is profoundly social. Energy is a human need, a public good, a personal right, a cost of living, a means to heating/drying/cooling/cleaning, and much more besides. As Matthew Huber [6] shows in his brilliant book *Lifeblood: oil, freedom and the forces of capital*, energy coarses through every single capillary of the body social (never mind the major organs). Making energy policy without a rich understanding of the social preconditions and effects of energy technologies is not only ‘unrealistic’; it also offends one of the basic principles of democracy (namely, governmental decision-making based on a knowledge of political options and pathways, the selection of which is justified publicly with reference to evidence, logic, practical concerns and ethics). But equally, the social science of energy cannot

¹ National context matters. By contrast to the UK, in Australia social practice theory has the attention of certain consumer advocacy groups, including Energy Consumers Australia. At the fore this work is The Beyond Behavioural Change research program lead by Dr. Yolande Strengers and Dr. Cecily Maller, RMIT University. Examples of applications of social practice theory to rethink energy policy are found in their chapter in the edited collection by Strengers et al. [1]. Equally, informed by social practice theory, the work of Strengers [2] is pivotal to opening up a different conversation with Australian consumer advocacy groups and decision makers on the possibilities of smart energy technologies to reduce or shift energy demand for low income households.

afford to routinely bracket-out the biophysical preconditions and implications of particular social norms, needs, habits, wants, relationships, institutions and so on. Otherwise technically deficient policy lessons would be drawn that physical scientists might scoff at, and decision makers might simply ignore.

Yet despite our endorsement of Cooper’s aims, it would be remiss not to point to some important empirical and logical flaws in his argument, as well as to some questionable suppositions. In what follows, we hope we’re not misconstruing Cooper’s overt and implicit claims in deriving our own.

First, he adduces no evidence to demonstrate that policy makers either ignore, or regard as ‘unrealistic’, knowledge or arguments that are not couched in terms of physical units. His experience at DECC serves as a proxy for this evidence, but it would be more convincing to survey government scientists, civil servants, political advisors and ministers to determine what, exactly, shapes their thinking about energy systems (cf [7]).² As a good social scientist, it would also help of Cooper had drawn upon the published research into science-policy links, much of which has focussed on why much expert knowledge and advice is ignored by political decision makers (see, for example: [8,9]).

Second, Cooper elides the *conduct* of research with the *communication* of research (sometimes known as ‘knowledge transfer’). Though he says much about the absence of ‘socio-technical’ inquiry in policy arenas like DECC, he seems also to lament the relative lack of such research as such. If, as he implies, socio-technical inquiry does not yet have critical mass, then it’s unlikely the knowledge gap he identifies can be filled across the science-policy interface until universities and other research-orientated organisations find ways to foster the new paradigm. But Cooper says little about such organisations, even though he now works in one (University College, London). He also says little about the challenges of translating research into ‘policy relevant’ language in different policy settings (e.g. expert advisory meetings, select committee testimony etc). Yet there are now lots of examples of new interdisciplinary research centres and institutes, such as that led by Nikolas Rose at King’s College, London (the new department of Social Science, Health & Medicine). There are also some examples of initiatives to train researchers to ‘translate’ to policy makers (such as those established by Jane Lubchenco in the USA). In the UK there’s also a fund of so-called ‘impact’ cases linked to the previous Research Evaluation Framework exercise (2014), many of which are energy policy focussed. What can we learn from carefully researching these examples? Some answers exist in books, reports and peer review articles where experiments in ‘inter’, ‘cross’, ‘multi’ and ‘transdisciplinary’ inquiry have been analysed (see, for instance, [10–12]).

Third, Cooper posits a counter-factual that belies a problematic assumption. If socio-technical research were large and visible, he implies, policy makers and their advisors are very likely to take notice. More than this, they might then *act* on at least some of the information and argument hailing from energy researchers who ‘join the dots’ between physical and social science. Though we don’t doubt that ‘reframing’ energy options through new forms of research is potentially important, Cooper is wrong to assume that more or better research might be decisive in policy making arenas. We say this in light of extensive investigations by Roger Pielke and Daniel Sarewitz (e.g. [13,14]), among others, about what drives

² Indeed, Waitt’s collaborative experience of working with the Australian Commonwealth Scientific and Industry Research Organisation (CSIRO) and representatives from the Australian Commonwealth Government Department of Industry, Innovation and Science (as part of the Low Income Energy Efficiency Program) provides counter-evidence to Cooper’s claims. Amongst these organisations, there was a receptiveness and openness to arguments and interventions that drew upon participants’ narratives retold through video story books.

Download English Version:

<https://daneshyari.com/en/article/6464049>

Download Persian Version:

<https://daneshyari.com/article/6464049>

[Daneshyari.com](https://daneshyari.com)