Social Science, Policy and Democracy

March 5, 2023

Abstract

This paper argues that there is a neglected democratic challenge for policy-relevant social science that existing accounts of the relationship between science and democracy fail to address. It is widely acknowledged that policy-relevant social science is value-laden in a number of ways. To reconcile this with democracy, it has been proposed that the values that enter social science need to be democratically aligned or legitimated in some way to guard against a democratically problematic technocracy. But where the value judgements that need to be made are especially contentious, and persistent disagreement can be expected, this response may not address the danger of a kind of epistemic inequality that I will argue is also problematic on democratic grounds: the epistemic inequality that arises when social scientific results concerning matters of public interest are more relevant, usable and trustworthy for the subset of the population that shares the value judgements made in the research than for the subset of the population that doesn't. A value pluralist approach, in contrast, can help ensure epistemic equality. I will thus argue that if and where greater value pluralism is feasible in social science without undermining other important values, it is clearly desirable on democratic grounds. The measurement of value-laden social scientific indicators, such as measures of the cost of living or wellbeing, will serve as an example of a domain where greater pluralism is both especially desirable and feasible.

1 Introduction

Can social science provide policy-guidance without undermining some basic democratic values? It would clearly be devastating if the answer was 'no': Most people are deeply committed both to democracy, as well as to the idea that policy decisions should be informed by the best available science, including the best available social science. Accordingly, the many philosophers who have worried about potential tensions between science and democracy have come out arguing that, if done right, good science and democracy mutually support rather than undermine each other, Dewey (1927/2012) and Kitcher (2003) being paradigmatic examples.

This paper argues that there is an under-appreciated democratic challenge for policy-relevant science, which I will articulate specifically in the context of value-laden social

scientific indicators. Value-ladenness has long been acknowledged to pose an obstacle for reconciling science and democracy: It creates the potential for the value judgements made by a small subset of the population to have a significant impact on policy decisions, in a way that bypasses normal processes of democratic legitimisation. Consequently, solutions to this challenge have either defended the value-free ideal (see Bright 2018 and Du Bois 1898), or stressed the need to, in one way or another, democratically align the values entering science, in a way that is parallel to how democratic legitimacy is given to public decision-making more generally. The nature of many social scientific indicators makes the value-free ideal wholly unworkable, lest we give up the entire project of aiming to measure poverty, inequality, or wellbeing. And so only the second common type of response seems to be available in their case. But, I will argue, this response misses a significant part of the challenge value-ladenness poses to democracy.

As I write, the United Kingdom, like many countries around the world, is facing a devastating cost of living crisis. The incomes of large numbers of households cannot keep up with the rising prices of the goods and services they consume, pushing increasing numbers into poverty. To tackle this crisis, it is important that policy-makers have a clear picture of inflation — of how much the cost of living has increased, how it is projected to further increase, and how different policy options will affect the rate of change. In the UK, the Office of National Statistics (ONS) supplies a number of measures of inflation that are treated as key indicators by policy-makers, by the public and media holding them to account, and by social scientists studying the causal relationships between inflation and other social scientific variables or policy interventions. The most widely used and reported indicator is the Consumer Price Index (CPI).

But what is the cost of living? The first thing to note is that it is clearly a value-laden concept and treated as such by those using it. Saying that the cost of living has gone up involves making a comparative evaluation of the kinds of goods and lifestyles that can be afforded by households before and after changes in prices. In the most general terms, it is good for people to be able to afford to live well, and measures of changes in the cost of living aim to capture the extent to which households can do that. Clearly, however, there are different ways of making this idea precise. Two salient ways of making it at least somewhat more precise would be to either think of it as the cost of meeting one's basic needs, or to conceive of it as the cost of consuming the kinds of things one is actually consuming — which in many cases will go beyond meeting one's basic needs. In either case, the cost of living in fact differs between different people. Clearly, different people actually consume different things, the prices of which may change to different extents. But even the cost of meeting basic needs may differ between different people; I need corrective lenses to function in daily life, while you may not. A measure of inflation useful for large scale policy needs to capture changes in the aggregate cost of living despite this heterogeneity.[1]

Both the choice of concept of 'cost of living' as well as choices about how to aggregate over a diverse population involve important value judgements, about what makes life

[1] See Deaton (1998) and Reiss (2008) for more detailed discussion of these challenges.

good, about who matters how much, about what we are entitled to expect compensation for from each other and the state, and about our policy priorities. Actual measures of inflation embed these value judgements. In practice, the headline CPI published by the ONS aspires to capture changes in the prices of the things households are actually consuming (see Flower 2019 on the precise methodology). It uses a representative basket of 700 goods, regularly collecting price quotations from different kinds of outlets all over the country. In deciding on the quantities of each good in the basket, the headline CPI defers to the consumption decisions of households. More specifically, it gives weight to different households in proportion to their share of the total expenditure of all households, making the CPI more sensitive to the consumption decisions of richer households.

The ONS has been under increased pressure from anti-poverty campaigners in recent years arguing that the headline inflation figures do not capture well the extent of the cost of living crisis experienced by the poorest households (see BBC 2022). The criticism is both that the standard basket used by the ONS does not include enough of the items the poorest households are consuming to meet basic needs, such as supermarket own-brand products, and that, as an effect of aggregation, higher price increases on those products are washed out by lower price increases in the goods disproportionately consumed by richer households. Periodic disaggregation carried out by the ONS can address the second concern to some extent, but not the first. The central controversy here is at heart about values and policy priorities: Relative to the other purposes inflation measures may help to serve, campaigners want greater policy priority given to compensating the worst-off households for increases in the cost of meeting basic needs, or to preventing such increases from happening in the first place. Consequently, they want inflation measures to be designed for serving those purposes to the greatest extent possible, which they traditionally have not. The ONS is currently making some changes to address these challenges better, which we will return to below (see Hardie 2022).

To get to the heart of my concern in this paper, note that there are two levels to this controversy: On the one hand, there is disagreement about the values that, in virtue of being captured by policy-guiding social scientific indicators, will end up shaping public policy. In that respect, the controversy is much like any other disagreement in the political sphere. But on the other hand, there is also the complaint that one side to this debate does not have access to the measurements (and scientific studies employing them) that would help them make their case in public debate, while the other side does. One side can appeal to official statistics capturing what they care about, while the other needs to rely on evidence that remains anecdotal. They are not entering public deliberation as equals. This is a distinct issue from the first, and, I argue, one that is neglected by the literature aiming to reconcile democracy and the value-ladenness of science.

Measures of inflation are just one type of social scientific indicator that is at once value-laden, and highly relevant for guiding policy. Were it the case that the value judgements in question were made entirely by unelected social scientists, based exclusively on personal values unrepresentative of the population at large, this would be problematic on any plausible normative theory of democracy. To the extent that they have an impact on

policy, we may want to ensure that the values embedded in them are picked in a democratically legitimate way, just like we aim to ensure democratic legitimacy for any significant policy decision. But there is another important aspect of the relationship between policy-relevant science and democracy. The outputs of policy-relevant science, such as social scientific indicators, are not only used to inform the choices of policy-makers. They also feed back into public deliberation, and are used to hold policy-makers to account. Focusing only on the democratic selection of the values that enter the research that is then used to guide policy choice ignores this second purpose of policy-relevant science. This is problematic specifically in contexts of significant value disagreement.

Modern democracies often find themselves confronted with irresolvable disagreement about the values at stake in a policy decision, including the types of values that are embedded in policy-relevant social scientific indicators. Still, most accounts of democracy allow for such decisions to be made without requiring that consensus is in fact reached. Likewise, we may, in a democratically legitimate way, settle on the values to be embedded in the social scientific indicators that are then used to guide specific types of policy, without in fact reaching consensus on those being the right values. However, if no other social scientific indicators than the democratically selected ones are widely available to the public and to social scientists, this raises, I argue, a problem of epistemic inequality: Only those who share the democratically selected value judgements embedded in the chosen indicators can make reliable use of them in public deliberation and to hold policy-makers to account. Others are at an epistemic disadvantage, since the available indicators only partially capture what they take to be important, and at worst, there may be no available measurements of the things most crucial to them given their values and interests. In an important respect, then, those others do not enter further public deliberation as equals, and are not to the same extent able to hold the government to account. While the values were, by hypothesis, originally chosen in a democratically legitimate way, there is a danger they become entrenched, undermining the good functioning of democracy going forward.

What is needed to address this problem, I will argue, is for social science to aim for an output that is *value pluralist*, in order to help ensure a distribution of the epistemic goods needed for good public deliberation that is sufficiently equal to achieve important democratic values. In the case of the measurement of value-laden social scientific indicators, two feasible strategies to ensure greater value pluralism are the availability of publicly accessible dashboards of multiple indicators on the one hand, and tools that allow policy-makers and the public to adjust the weightings of different components of aggregate indicators, on the other. Unfortunately, this conclusion runs counter trends in several important fields of research in policy-relevant social science, where there are ambitions of and political pressures towards a single metric to guide policy. An important upshot of my argument is that these ambitions are highly problematic from a democratic point of view. And insofar as pluralism is already practised or advocated for in the social sciences, I provide an additional and neglected democratic justification for it.

The next section will outline what I take to be some uncontroversial ideas regarding social scientific indicators, values and science to serve as a backdrop to my argument. It

will draw some implications for the common ambition of a single, dominant policy-guiding indicator. Section 3 will spell out a first democratic challenge for such indicators, and show how it motivates existing philosophical accounts of how this democratic challenge can be addressed. I go on, in Section 4, to characterise the notion of epistemic equality at the core of my new democratic challenge, and explain how existing philosophical attempts to reconcile social science and democracy fail to address it. Section 5 contains my positive proposal along with examples of existing good practice.

2 Some Uncontroversial Ideas

Let me start by outlining five ideas I take to be uncontroversial, but that have important implications for many social scientific indicators.

1. Value-Ladenness of Social Scientific Indicators: Policy-relevant social scientific indicators are often value-laden. Many of the most policy-relevant social scientific indicators measure 'thick concepts', which are concepts that are partly descriptive, and partly evaluative. As discussed in the introduction, 'cost of living' is one such concept. Other important examples include wellbeing (more on which in what follows), economic welfare, economic inequality, poverty, and health, all of which are measured and studied by the social sciences.[2]

2. The Fact of Value Disagreement: People often disagree about the values captured by such social scientific indicators. Disagreement may be about how a particular concept should be understood in a particular context. For instance, in our opening example, part of the controversy over the ONS's inflation measurements is about whether the notion of the cost of living to be measured should be the cost of consuming our actual consumption baskets, or the cost of meeting basic needs. In other domains, it may be about what it means to be poor, or healthy, or, as we'll see, about what wellbeing consists in. This is disagreement about *what* we should count. There is, in addition, also often disagreement about *how* we should count it: How do we compare the cost of living, wellbeing, health, or economic welfare of different people, and how do we aggregate them in order to study population-level effects? Finally, there is also often disagreement about the relative importance of the values captured by a social scientific indicator. We may, for instance, agree on what poverty is, but may disagree on how important it is relative to other policy priorities.

For the purposes of this paper, when people give priority to their own interests relative to others, and as a consequence favour a way of aggregating, for instance, wellbeing in a way that gives more weight to the wellbeing of people like them, I will treat this as a kind

[2]See, for instance, Weston (1994) on value-laden concepts in economics, and Alexandrova (2017) on a book-length treatment of the value-laden science of wellbeing. See Steele (2012) and Machlup (1969) for arguments that scientists must make value judgements when giving policy advice, and Ward (2021) for a useful general taxonomy of values in science.

of value disagreement (where interests are not explicitly specified alongside values, this should be read to be included). And so value disagreement in the relevant sense can be expected to be especially common where the interests of different segments of society are in conflict with one another.

To some extent, the process of sharing reasons with each other may resolve some of these disagreements, especially where people's views may have been based on insufficient reflection or experience. We may come to see each other's point of view and adjust our own, regarding, for instance the nature and relative importance of poverty. However, professional philosophy provides good evidence that complete consensus on fundamental questions of value, such as, for instance, the correct theory of wellbeing, is not a realistic prospect even in an environment where the constant exchange of arguments is routine.

3. Compounding Disagreement over Aggregate Measures: The more aggregate a social scientific indicator is, the more likely disagreement about the embedded values is. Here I have in mind mainly two different kinds of aggregation: Aggregating effects on different people, and aggregating different kinds of effect. For instance, the CPI is aggregate in both respects: It aggregates the changes in the cost of living of many different people. And it also aggregates price changes of many different types of goods. Compared to disaggregated price indices for individual people or individual types of goods, this involves making additional value judgements: About the relative weights given to different households (e.g., equal or proportionate to share in overall spending) and about the relative importance of different types of goods (e.g., proportionate to how much they are actually consumed or proportionate to their importance for meeting basic needs). These additional value judgements mean that there is more room for value disagreement, such that it is less likely that consensus can be reached even in an extensive process of public deliberation. Disagreement will be most likely for the most aggregate of metrics, for instance those aiming for an aggregate measure of national wellbeing or economic welfare, which are sometimes treated as candidate metrics for all-things-considered policy-guidance.

4. The Desideratum of Policy-Guidance: It is desirable for social science to give useful action-guidance for public policy. Policy-makers can only effectively serve society, and society can only engage in fruitful public deliberation, if we have reliable and usable information on what the likely consequences of the different available policy options are. Many of the most important consequences of public policy concern phenomena studied by the social sciences, and these sciences offer the best means of reliable knowledge about the effects of public policy. And so it is commonplace, amongst both social scientists and philosophers of science, to treat it as a desideratum that social science should provide useful policy-guidance.

While the general idea is very intuitive, on closer inspection, there are at least two important ambiguities to this desideratum. The first relates to whether what is desirable is that social science (a) studies *some* of the effects of policy that are choice-relevant, (b) studies *all* of the effects of policy that are choice-relevant, or (c) supplies a measure of how

choice-worthy different policy options are all-things-considered. These differ in the extent of guidance demanded from social science. The second ambiguity arises from the fact that which effects are choice-relevant depends on the goals and values to be pursued. Some salient possibilities of what these could be are either (i) those of the actual policy-maker, (ii) those that would be decided on in a democratically legitimate process, or (iii) all policy-relevant values reasonably held by members of the population. The point of applying (i) or (ii) would be that social science should assist (democratic) public decision-making, and demands for policy-relevance have usually focused on these notions of policy-relevance. Sense (iii) is salient once we take seriously an idea explored below: that social science should also inform the public deliberation preceding public choice, and the holding to account of public decision-makers.

Once we clear up these ambiguities, some of the weakest formulations of the desideratum are clearly uncontroversial: Social science should produce reliable and usable information on some of the policy effects that are choice-relevant relative to some values reasonably held by members of the population. Plausibly, they should also, in particular, produce reliable and usable information that is choice-relevant relative to the values a policy-maker is pursuing in a democratically legitimate way. As we will see, in some debates, however, the desideratum is understood in stronger terms, namely as requiring social science to produce *all-things-considered* measures of policy-evaluation, typically thinking of these as relative to the values policy-makers are either assumed to actually have or ought to have. Such measures would provide action-guidance to policy-makers in the most direct terms. We will see below that this stronger desideratum is problematic in practice, since it is usually pursued at too high a cost.

5. The Need for Aggregation: Public decision-making requires aggregation. Ultimately, policy-makers do need to take into account all relevant effects of the policy options open to them, weigh up their relative importance and arrive at an all-things-considered judgement as to what the best policy option is. This will typically require them to perform some kind of aggregation of effects on different people and of different types, either explicitly or implicitly.

Now suppose you subscribe to a stronger version of the Desideratum of Policy-Guidance, and take it to be desirable for the social sciences to produce measures that tell policy-makers how well different policy options serve policy-makers' goals *all-things-considered*. Given the Need for Aggregation, this implies that social science should be producing the most aggregate of social scientific indicator, one single metric to integrate all positive and negative effects of different policy options on different people and of different types, to be used to directly guide public policy.

This, in a nutshell, is the motivation for a number of projects in the social sciences to provide policy-makers with, in the words of Alexandrova (2022), a 'master number' to guide public decision-making. Sometimes these projects have included efforts to push for the preferred metric of policy analysis to be integrated in the standard procedures of the administrative machinery of government. A recent phenomenon of this type is the

advocacy of behavioural scientists and happiness economists subscribing to the subjective wellbeing approach to treat an aggregate subjective wellbeing metric as just such a 'master number' to provide an all-things-considered evaluation of policy.[3] In the UK, these efforts have had some success, with subjective wellbeing now being included in the government's Green Book (see HM Treasury 2022). Past projects with ambitions perhaps not quite as all-encompassing, but nevertheless understood by many as aiming at an overall measurement of how well a country is serving its people's interests have been Gross Domestic Product (GDP), and, building on that measure's weaknesses, the UN's Human Development Index (HDI).

Going back to our list of uncontroversial claims, one consequence of any such 'master number' approach, if it insists on a *single* all-things-considered metric, is that there is likely going to be widespread disagreement about the values embedded in this single highly aggregate metric. The same is true, to a slightly lesser extent, of metrics that are less 'all-things-considered' but yet highly aggregate. Specific measures of the cost of living, poverty, or inequality aim to capture only one type of policy-relevant effect. Still, they embed value judgements there is widespread disagreement about. Within these domains, too, however, debate between social scientists often focuses on finding the one best metric, to then present to public decision-makers and the public as policy-guiding.

This tendency towards monism within the social sciences, be it regarding a single all-things-considered 'master number' or within individual sub-domains of policy interest is reinforced by political and pragmatic pressures:[4] Political pressures to provide unambiguous policy-guidance, enabling policy-makers to say they were merely 'guided by the science'; and pragmatic pressure based on the fact that the cost of the measurement of social scientific indicators, such as the measurement of inflation, is very high. The result is that in the case of many of the social and economic effects of policy, a single or a small number of indicators at once serve to guide policy and inform public debate, while alternative measures are either lacking or much less known and accessible — just think of the dominance of GDP in reporting and public deliberation about the economy. And notably, these measures by and large remain the same over time even in the face of shifts in public opinion and changes in government. The next section spells out one type of threat this phenomenon can pose to democracy, familiar from more general discussion on values in science. It will then outline philosophical accounts of the democratisation of science that have aimed to address this threat. I will ultimately argue that there is another democratic threat that these accounts do not sufficiently address.

[3] See, for instance, Clark et al. (2018), Frijters et al. (2020), Dolan (2021), Helliwell (2021).

[4] See also Mitchell and Alexandrova (forthcoming) for discussion of such pressures towards monism, including also more epistemic pressures from within science itself, and Bell and Morse (2018) for a collection of essays by social scientists reflecting both the attraction and the difficulty of specifying a single indicator of sustainability.

3 The Technocratic Challenge

Consider this hypothetical example of how value-laden social science may guide policy: A social scientist develops a measure of national wellbeing, making all required value judgements on the basis of only her own moral intuitions, theorising, and reading of the philosophical literature on wellbeing. Her theorising remains inaccessible to the public and policy-makers, but she and her team produce both regular measurements of national wellbeing, as well as studies estimating the effects of different potential policies on national wellbeing. Policy-makers use the results of these studies in an effort to maximise national wellbeing, explaining to the public that they are merely 'following the science'.

This is clearly an example of a problematic kind of technocracy that runs counter to core democratic values on any normative theory of democracy. The scientist was neither publicly elected, nor is her reasoning about which values to capture with her national wellbeing measure open for public scrutiny. Her reasoning is also not responsive to the values of either the public or democratically elected public decision-makers. For the reasons discussed in the last section, it is moreover unlikely that the values the scientist ends up capturing are uncontroversial, given the aggregate nature of a measure of national wellbeing. Yet, her choice of measure ends up having a substantial effect on public policy, in a process that bypasses ordinary processes of democratic legitimisation.

It is clear that our imagined example is not a case of democratic decision-making — power is not exercised by the people here, either directly or indirectly. Different normative accounts of democracy explain what is bad about this in slightly different ways. One important branch of democratic theory sees democracy as a way of treating everybody as equals. There is a variety of such egalitarian conceptions of democracy. One idea is that democracy is the best way to ensure *public* equality, that public institutions and decision-making procedures treat everybody equally, giving everybody an equal say over how the communal aspects of our lives ought to be organised (see Christiano 2008 or Valentini 2013). Another is that democracy ensures *relational* equality, that citizens stand in relationships of equality to each other, and not in relations of domination and subordination (see Kolodny 2014a, 2014b). Technocracy of the type I described is problematically inegalitarian on each of these types of views. The social scientist has disproportionate power over her fellow citizens, being able to impose her value judgements on everybody else. This is relationally inegalitarian, and she is being given that power by the way in which public decision-making is structured.

Disproportionate power is also at the heart of other potential explanations of what is bad, from a democratic perspective, about the kind of technocracy just described. According to some accounts the crucial value of democracy consists in enabling the public justification of the institutions and policies that rule our lives (see, e.g. Habermas 1992, Cohen 1996). Public justification requires, at a minimum, that the reasons for and against different policy options are made public and subjected to a process of public deliberation amongst equals. But in the technocratic scenario, not only does the scientist have a

disproportionate say, the reasons for public decisions also remain opaque. Well-informed public deliberation has been emphasised more generally by advocates of the deliberative democracy movement. Aside from the ones already mentioned, it is also crucial on other prominent views of democracy. For instance, on perfectionist views of democracy, such as that put forward in Mill (1991/1861), democracy is good because it gives citizens the opportunity to exercise their moral capacities. On instrumentalist conceptions of the value of democracy, democracy is good because it tends to lead to good decisions, for which a well-informed process of public deliberation is in turn important (see Estlund 2008, Goodin and Spiekermann 2018 and Schwartzberg 2015). While our scientist has important technical and scientific expertise, she likely does not have significantly more expertise on questions of value than any other citizen, so that decision-making could be improved by including others in the deliberative process (see also Holst and Molander 2017 on this).

The example I started this section with is of course only a cautionary tale. But it is not far off the vision pursued by some of the advocates of 'master number' approaches discussed in the last section.[5] And it highlights a certain kind of danger for policy-relevant social science more generally. The danger comes from the fact that contentious value judgements need to be made in such research, and that such research in turn often directly influences public policy. Now it might seem that to address this problem, all that needs to be ensured is that the values that enter the social scientific research are selected in a democratically more legitimate way than in our cautionary tale, and in particular in a way that aims to mirror how policy decisions are given democratic legitimacy more generally. Let's call this ambition the ambition of the 'democratic alignment' of value-laden social science.[6] In the following, I describe three accounts of the reconciliation of democracy and science more generally that we can apply to social scientific indicators of the type we have been discussing, and which aim to ensure such democratic alignment.

A first proposal is to ensure greater accountability of the social scientists, which is notably lacking in our cautionary tale. Douglas (2021), for instance, defends the need for accountability of scientific experts who act as policy advisers, be it in formal advisory bodies, such as the Intergovernmental Panel on Climate Change (IPCC) or the UK's Scientific Advisory Group for Emergencies (SAGE), or be it in a more informal paid or unpaid capacity when approached by a government. Such scientific advisers, according to Douglas, should be accountable not only to their scientific communities for the accuracy of their scientific advice, but also, importantly, to the citizenry for the value judgements embedded in their advice. Accountability is standardly assumed to involve, at least, that a person can be compelled to give an account of the reasons for their decisions and to respond to challenges, and usually also a threat of consequences if these reasons are not acceptable.

[5] As shown by Singh and Alexandrova (2020) for the case of some of the advocates of subjective wellbeing as a metric of policy evaluation. Also see Thoma (2021).

[6] For a general defence of such a more political rather than first-order ethical approach to values in science, see Schroeder (2020).

I am here concerned not only with expert advice, but with policy-relevant social science more generally, and specifically with the measurement of policy-relevant social scientific indicators, which takes place in a wide variety of institutional settings. Many social scientists involved in policy-relevant research and the design of social scientific measures may not have any formal or informal role in directly advising governments. Rather, they simply produce work that they hope to provide useful policy-guidance. In many countries, proving 'impact' is part of how the work of academics is assessed and a condition for funding, so that there are strong incentives for this. Others work for national statistical agencies that are branches of government, such as the ONS. But the idea of ensuring accountability can be extended to these settings, too.

Douglas describes two different channels of accountability depending on the institutional setting. One is that accountability could be achieved through the close relationship between scientific advisers and democratically elected public decision-makers. If the people select public decision-makers on the basis of their values, and public decision-makers, in turn, choose scientific advisers whose values are broadly aligned with their own, the scientific advice that then guides policy seems to have gained legitimacy. Likewise, we might think that even outside the narrow context of policy advice, policy-relevant social scientific research gains legitimacy by being chosen by democratically elected decision-makers to guide policy.

While the first channel of accountability, according to Douglas, only requires transparency about value judgements between scientist and policy-maker, the second channel of accountability is through transparency in the advisory reports produced by official advisory bodies such as SAGE and the IPCC, where the reasons for any recommendations are laid out in the open, including any value judgements that were made to reach them. It seems natural to extend such requirements to official statistical agencies providing the measurements that often have a very direct impact on policy. Indeed, the ONS, like many other national statistical agencies, does provide a great deal of information on the indicators it measures on its website, with recent efforts made to present key information in more accessible ways, e.g. through its blog.

There are various reasons for thinking these accountability mechanisms do not fully address the technocratic challenge we started out with. For one, mere transparency does not ensure there is a concrete threat of consequences if the reasons transparently provided are not deemed good enough by the public. If citizens do not have a means of recourse when they don't think, for instance, that statistical agencies that have an influence over policy are measuring what actually matters to them, then worries of a problematic technocracy remain. Moreover, as Wilholt (2021) has pointed out, Douglas' first channel — accountability by selection through elected decision-makers — does not ensure that scientific research informs and enriches public deliberation itself, for which trust and transparency are needed. It thus seems insufficient on more deliberative accounts of democracy. More robust accountability mechanisms, such as the 'science courts' recently proposed by Pamuk (2021) may at least in part be able to address some of these concerns.

A second type of response to the technocratic challenge that aims at democratic alignment takes more seriously the idea that scientists should not only be accountable to the public for the value judgements they make, but that these value judgements should also reflect the values of the public. Kitcher's ideal of a 'well-ordered science' was first developed mainly in the context of the setting of research priorities (see Kitcher 2003), and requires these to be set in accordance with the public good — where this public good is understood as the result of a hypothetical process of ideal democratic deliberation by citizens tutored by scientists. The ideal of well-ordered science has since been extended by him and others to other value judgements required to conduct science.[7] More general appeals for the 'representativeness' of the values entering (social) scientific work is common among other authors.[8] We can also apply this idea to the case of value-laden social scientific indicators.[9]

Kitcher has been criticised, amongst other things, for offering relatively little reflection on how to best practically implement his ideal, with some expressing scepticism that we can ascertain with sufficient confidence what the outcome of ideal democratic deliberation would be, or indeed that even ideal democratic deliberation would result in consensus on the kinds of value judgements scientists need to make. Some proposals for practical implementation can be found in Kitcher (2011), where he suggests, for instance, that tutored citizen representatives could be taken behind the scenes of scientific research to provide input on questions of value. Still, his account has been criticised for its hypothetical nature by those who hold that democratic legitimacy requires people to participate in *actual* deliberation, to have an *actual* say — and in this sense to also betray its supposed Deweyan roots, e.g. in Dewey (1927/2012) (see Keren 2013). The same criticism should extend to any calls for the representativeness of the values entering social scientific research that do not seek actual democratic input.

The idea that citizens should have an actual say in the value judgements made by scientists has inspired, finally, support for direct democratic participation in science, in the form of citizen science projects. Specifically on our core topic of interest, there have been proposals to directly democratise measurement in the social sciences, by involving stakeholders and the public at large in the production of indicators. This idea has been championed, for instance, by Alexandrova and Fabian (2022) in the case of the measurement of wellbeing. Public co-production of indicators aims to ensure that the value judgements involved in measuring wellbeing are themselves arrived at in a democratic way, offering the most direct form of democratic alignment. The process, according to its proponents, should ideally incorporate deliberative elements, with scientists ultimately deferring to the outcome of public deliberation in the value judgements they incorporate in their measure.[10]

Whatever else their respective merits and drawbacks, all of these responses to the

[7] See, e.g., Kitcher (2011) and Cartwright (2006).

[8] See Elliott (2017), Intemann (2015), Schroeder (2021), and Reiss (2008).

[9] See, e.g., Jesinghaus (2018) for such a proposal.

[10] See also Lusk (2021) for a defence of a deliberative democratic approach to values in science and Lusk (2022) for an application to climate science.

technocratic challenge share a common limitation. They view policy-relevant science, insofar as it involves value judgements, as something that should be the *output* of a democratically legitimate process. Insofar as at least some of this science is used to directly guide actual decision-making by policy-makers, this sounds like an eminently plausible demand. However, policy-relevant social science is also a resource for citizens, helping them to hold policy-makers to account. It in this way also serves as *input* into public deliberation going forward. Technocracy is also a threat to this important democratic function of policy-relevant social science: Lack of access to scientific results keeps citizens from using them, lack of transparency about how they were arrived at may diminish the trust needed for citizens to use science, and, importantly, a lack of alignment between scientists' and citizens' values may diminish the relevance of the outputs of science in light of what citizens themselves care about. However, as I will argue in the next section, the responses to the technocratic challenge we just considered do not sufficiently help to overcome this aspect of the challenge. The problem is that in the context of disagreement about the values embedded in policy-relevant social science, all the forms of democratic alignment we discussed will still involve a democratically problematic kind of epistemic inequality.

4 Epistemic Inequality

Imagine you are a child about to go on holiday with your family. Your parents are letting you and your brothers decide where you will be going, and promise to do so "democratically". They've also provided you with a dossier of information about the places you might be going to. All you care about in a holiday is that you can be in, on, and by the water. Your brothers love ice-cream and care about nothing much besides. You flick through the dossier, searching for mentions of 'water', 'swim', 'boats' and 'beaches', but to your great disappointment find nothing. Instead, the dossier consists in large part of one long and detailed chapter entitled 'ice-cream'. Your brothers soon embark on an extended and ever more sophisticated discussion on the relative ice-cream related merits of the different options, drawing up charts comparing ice-cream shop density, flavour variety and value for money. You have little interest in this discussion, but also have little to contribute to the deliberations, due to your lack of water-related facts to draw on. When it comes to making a decision, unsurprisingly, the family settles on the holiday destination that optimises the family's ice-cream consumption. What gets measured gets managed.

You complain, and rightly so. Irrespective of how the deliberation is otherwise structured and the decision reached, it seems like this is not an instance of ideal democracy. One complaint is that your parents have clearly biased the process. Their selection of information to put in the dossier reflects an assumed set of family priorities. You in fact suspect they are secret ice-cream lovers themselves. To the extent that their private preference for ice-cream drove their choice of information to put in the dossier, it seems like they weren't fully leaving the decision to the children after all. Democracy seems hampered by the disproportionate power of the information-providers. But this is not the only

problem. The problem is also that you are disadvantaged in relation to your brothers. And this problem remains even if we get rid of the first.

Confronted with the charge of their secret ice-cream agenda, your parents offer to go back to the drawing board. They suggest to first have a discussion about what the family's holiday priorities are. They will then ensure the dossier provides information that reflects the family's priorities. You go on to have that general discussion, in which you try to convince everybody of the importance of water-related fun. But you do not succeed, and are outnumbered by the ice-cream lovers in your family. You are reasonable and know that collectives must sometimes make choices that not everybody would have made for themselves. In the end you all agree that the family's holiday priorities are heavily skewed towards ice-cream related concerns. The original information dossier did in fact reflect the family's democratically agreed priorities well.

Still, I propose, you have a valid complaint regarding the dossier provided to you. Unlike your brothers, you don't even know how well the different options the family has serve the goals you find important. This leaves you much less able than your brothers to participate in the process of deliberation and decision-making. Knowing how well different holiday options serve your goals is an epistemic good that is very useful in family deliberation. This good is now unequally distributed in the family, creating an imbalance in power. To create a more equal distribution of epistemic goods, information on water-related enjoyment should also be provided. What this shows, I think, is that what the family collective's decision-making priorities should be, and what decision-relevant factors should be measured and studied prior to collective decision-making are two separate questions.

The analogy to the role of social science, and in particular value-laden indicators, in democratic decision-making is, I hope, obvious. If social scientists choose, in an opaque and non-deferential way, which values are embedded in social scientific indicators that are then used to guide policy, there is a worry about them having a disproportionate impact on policy decisions — this is the original technocratic challenge. But even a social science perfectly aligned to study what is most relevant according to democratically chosen or otherwise legitimated policy priorities may be problematic from a democratic point of view, namely in cases where there is persistent disagreement about what values should be driving policy. As we argued in Section 2, such persistent disagreement is especially likely in the case of highly aggregate social scientific indicators.

There is continuing debate about the extent to which consensus is necessary, and in what form, for democracy to even be possible. But no plausible theory can require complete consensus on all questions of value. Perhaps we must be able to find agreement on some fundamental rights and on how our decision-making should be structured in general terms. But the values and tradeoffs relevant for the choice of different social scientific indicators usually go beyond those fundamental questions that we may conceivably reach agreement on, but concern, as we have seen, very specific questions of how much relative weight to give, for instance, to different people's well-being. Full consensus regarding such

specific questions of value is entirely unrealistic, and any plausible theory of democracy must hold that there are democratically legitimate ways of nevertheless choosing policy priorities.

So, democratically chosen policy priorities will often be ones that do not reflect the values of a significant proportion of society. This is to be expected and need not be problematic as a basis for decision-making. But if social science is now aligned with those policy priorities, this creates a problem of epistemic inequality that *is* problematic once we go beyond seeing social science only as a direct choice guide for policy-makers. Social science, including value-laden social scientific indicators, will embed values that a significant proportion of the population — all of whom should have the chance to participate in public deliberation — do not fully share. Those who share the value judgements and priorities that are embedded in the available social scientific indicators can use the results of social scientific research in public deliberation and to evaluate the performance of democratic decision-makers to an extent that others can't. What those who have other values and priorities find most important might simply not be measured and studied, leaving them at a disadvantage.[11]

This kind of epistemic inequality regarding matters of public concern is a neglected form of epistemic injustice. It concerns not forms of epistemic discrimination (e.g. when evidence given by a particular kind of group is systematically ignored), but rather epistemic injustice of a distributive kind:[12] The epistemic goods created by social science, which themselves play an important role in public deliberation, are distributed unequally in the population.[13] Epistemic inequality of this kind is bad on all plausible normative theories of democracy. First, note that the epistemic inequality implies a difference in power, and in particular power with regard to matters of public interest. Generally, knowing what means best serve your ends makes you better able to pursue them. In collective contexts, it enables you to make a stronger case in favour of or against your preferred policy options. And if you succeed, your preferred options are more likely to lead to the desired result. This difference in power exists whether you understand to what extent the

[11]Granted, actual experiments in democratic alignment, and especially the co-production type, often concern low-level, highly contextual measures. Alexandrova and Fabian (2022), for instance, have co-produced a concept of 'thriving' with a UK Anti-Poverty charity that is geared towards their purposes. It is not unrealistic that deliberation amongst stakeholders can potentially lead to a consensus concept of thriving for this purpose, and the same holds for other similarly contextual concepts. In that case, there would be no threat of epistemic inequality of the type I describe here. However, in order to offer guidance for larger scale policy decisions, more aggregate, and thus more value contentious measures are needed. Also see Hersch (2020) on this point. It is here that the problem of epistemic inequality is unavoidable for any monistic solution. Or, if the construction of more aggregate measures is resisted altogether, then policy-makers are forced to decide on the basis of an ensemble of contextual metrics, which is in effect a version of the dashboard solution sketched below.

[12]However, see Spiekermann (2020) on a form of epistemic injustice of a distributive kind, and Lovett (2020) and Delli Carpini and Keeter (1997) on the problem of epistemic inequality regarding knowledge of politics.

[13]In addition, there may also be a *hermeneutic* injustice of a distributive kind, whereby some groups are given fewer resources to understand their own social situation, and the concepts available for public discourse serve the majority interest rather than theirs.

dominant indicators reflect your values or not — which is important given values implicit in social scientific research often remain opaque in practice. Such a difference in power clearly undermines key democratic values.

Epistemic inequality regarding matters of public concern and the power inequality it implies is itself a problematic kind of relational inequality. Citizens who have unequal access to the epistemic goods created by social science do not relate to each other as equal, and do not enter public deliberation on equal terms.[14] Where the value disagreements stem from conflicting interests of different groups of society, and the dominant indicator gives greater weight to the interests of some rather than others, this may translate more directly to relationships of domination. This problem is made worse in circumstances where these inequalities line up with other dimensions of social inequality, as is arguably the case in our opening example on inflation measurement.

Moreover, if we view social science as a public institution, its unequally distributing epistemic goods is also inegalitarian in the public sense. If what you take to be crucial for the value of democracy is the possibility of public justification, then again, epistemic inequality is an obstacle: It impedes the public deliberation among equals that is meant to enable such justification. And more directly, in the absence of social scientific results pertaining to alternative values and priorities, those who do not share the value judgements of the dominant indicators cannot be shown whether or to what extent their values are served by a chosen policy. Even with the understanding that we must all often compromise to make democracy work, information on the nature of the compromises we have struck is still crucial for public justification. On more perfectionist views, epistemic inequality prevents the exercise of the moral capacities involved in fully participating in public discourse. And by limiting the participation in public deliberation of significant minorities, it impedes the reaping of potential instrumental benefits from democracy. If public discourse is only fully accessible to those who share the value presuppositions of the, let's grant, democratically chosen social scientific indicators, this represents a kind of epistemic tyranny of the majority, which is problematic, for subtly different reasons, on all prominent views of the value of democracy.

Thinking of democratic decision-making in its dynamic context exacerbates the concern. Social scientific metrics, once widely used, have a way of staying, and becoming the centre of both scientific and public attention for long periods of time — as is the case, for instance, for the CPI and GDP. Once they have become conventional, or been incorporated formally or informally into administrative decision-making procedures, they are to some extent insensitive to changes in public opinion. So even if a metric reflected democratically selected policy priorities at one point in time, we may end up in a situa-

[14]This is an implication of the way in which relational equality is spelled out by several of the proponents of relational egalitarian accounts of democracy. Kolodny (2014b), for instance, requires equality of opportunity for *informed* influence (p. 310), recognising that knowledge of how one's goals are best pursued is an important factor in public deliberation. Similarly, Knight and Johnson (1997) take "equal capacity to advance persuasive claims" to be one kind of equality required by deliberative accounts of democracy (p. 281).

tion where it is out of touch with changed values and policy priorities, but there are both pragmatic obstacles to changing it, and there is a lack of knowledge of alternative metrics and whether and how they may evaluate policies differently. It is important, on all major views of democracies, that policy priorities remain open to challenge, and the democratic alignment of indicators may stand in the way of that.

I've been writing here in very general terms, but what does this mean for actual social scientific practice, and for the various proposals for its reconciliation with democracy? Social science, while being value-laden, is not in fact generally democratically aligned in any of the ways we have discussed. However, what we do see, as discussed above, are pressures from both within and without social science towards monism of social scientific indicators — the dream of a master number. And we also see movements that see as their explicit goal democratic alignment of the values that enter social scientific research. Both of these trends are problematic from the point of view of epistemic equality. Monism regarding highly aggregate indicators is bound to leave us with indicators including value presuppositions many of us do not share. Democratic alignment regarding indicators of an aggregate enough nature so as to make broad value consensus unlikely comes with the same danger.

5 Towards Value Pluralism

In Section 2, we saw that the common demand that social science should offer useful policy-guidance is ambiguous. One important ambiguity arises from the fact that a piece of research is policy-guiding only in relation to some assumed set of values to be pursued. These could be the values actually held by the policy-maker, or the policy priorities determined in a democratically legitimate process, or, potentially, all the values reasonably held by members of the population. Monist trends for social scientific indicators, and proposals for the democratic alignment of social scientific indicators have pursued the ideal of policy-guidance in the first two senses, presumably because it is at the collective level that policy decisions are actually eventually made. The upshot of my argument is that they have done so at the expense of policy-guidance in the latter sense. Whenever sustained disagreement about crucial value judgements in unavoidable, not all citizens' values will be appropriately captured by the chosen indicators. And such disagreement is made more likely by the required aggregate nature of indicators designed to be policy-guiding in a strong sense for the collective decision-maker. Sacrificing policy-relevant research in relation to values other than the ones the policy-maker is actually or ideally pursuing is problematic because, as the last section argued, epistemic inequality regarding matters of public concern is problematic.

How, then, could we ensure greater epistemic equality? What would be needed to achieve perfect epistemic equality regarding value-laden social scientific indicators is that everybody has equal access to indicators that are adequate measures of what they care about and enable them to make all-things considered evaluations of policy options and

outcomes. If disagreement about the values at stake in some policy domain is pervasive as a starting point for public deliberation, this requires the availability and public visibility of multiple metrics, capturing a plurality of value perspectives. The goal for policy-relevant social science would need to be *value pluralist* in order to be the best possible basis for public deliberation amongst equals. If and where value pluralism is feasible without undermining other important values, it is clearly desirable on democratic grounds. Below, I will consider some potential tensions between value pluralism and other values. But I will argue that the domain of value-laden social scientific indicators, at least, is one where greater pluralism is both especially desirable and feasible.

Note that various kinds of pluralism have been argued for in the context of value-laden social science before.[15] Methodological pluralism has been argued to come with methodological advantages. And conceptual pluralism makes sense if one thinks concepts like wellbeing, or cost of living, are multifarious and have context-dependant meanings. The influential Stiglitz-Sen-Fitoussi report on alternatives to GDP as measures of human progress, for instance, stressed the importance of a plurality of measures of overall and domain-specific wellbeing on those latter grounds (see Stiglitz et al. 2009). I add a distinct reason for a different but related pluralism — value pluralism justified by democratic reasons.

How could value pluralism be implemented in practice for value-laden social scientific indicators? I'd like to outline two feasible approaches (that can also be combined) that, if we take the value pluralist ideal seriously, could and should be adopted more widely. The first is known in the policy literature as the 'dashboard approach' (see, e.g. Matheus et al. 2020, Head 2020, Schneider 2020), and has been defended, also in part on democratic grounds, by Hersch (2019) for the measurement of wellbeing. It has been most prominently adopted by New Zealand as part of its Living Standards Framework (see McLeod 2018 and Dalziel 2019). In the New Zealand case, the framework was aimed at monitoring progress towards improving the population's wellbeing, and is used both as a decision-making tool for policy-makers and a device to ensure transparency of those decisions and communicate with the public. The dashboard includes twelve different dimensions, including subjective wellbeing, health, housing, civic engagement and cultural identity, most measured with various sub-indicators. But it refrains from aggregating these dimensions into a single aggregate measure of wellbeing, or in any other way giving specific weights to the different dimensions.

How does the dashboard approach implement value pluralism? It does so insofar as it is equally informative for anybody whose core concerns are well captured by (some subset of) the various domains included on the dashboard. Since no weighting of the dimensions and aggregation into a single metric is performed, no agreement on a specific weighting is presupposed. Of course, value judgements will still need to be made when deciding which domains to include, and which sub-indicators to use to represent them. A dashboard will be more value pluralist the more domains it includes, and the more it uses sub-dashboards to represent each domain. However, this needs to be balanced in practice

[15] See, for instance, Mitchell and Alexandrova (forthcoming).

with other concerns, including usability and choice-guidance, more on which below. But even a simple dashboard like the New Zealand one will be adequately informative relative to a much larger set of values than a single metric of subjective wellbeing, GDP or the HDI.

The second kind of value pluralist approach I want to sketch does feature more aggregate indicators. But it makes these indicators customisable for every member of the public, as well as public decision-makers. One prominent blueprint for such an approach is the OECD's Better Life Index. It is based on eleven dimensions of wellbeing largely equivalent to the ones featured on the New Zealand Dashboard (the OECD's list in fact formed the basis of the New Zealand Living Standards Framework). While the Better Life Index does aggregate the sub-indices for each of these dimensions, it does so in a way that lets users set weights for its different components according to their values and purposes. The index is used primarily to let users compare how well different countries are fairing in relation to different dimensions of wellbeing, as well as overall. But one could imagine the general approach of customisable indicators being extended to other, more directly policy-related purposes. This approach is value pluralist to the extent that it allows for people to weight different potential components of wellbeing differently, including giving no weight to some, or even giving weight only to one. It will be equally informative for anybody whose core values are among those in the included dimensions and well represented by the sub-indices, and — in this way potentially more restrictive than the dashboard approach — who weight moral reasons in a way that is well captured by the kind of aggregation the customisable indicator allows for.

Going back to our opening example of the ONS's measurement of inflation, we can see elements of both types of approaches either already implemented or in development, in what is at least in part a response to the controversies I outlined in the beginning. The ONS has long published other inflation figures besides the CPI, including in particular breakdowns by income group and product category. However, these have used the same product basket and general methodology as the headline CPI. In addition, in 2022, the introduction of a number of further measures has been announced that reflect a wider range of potential policy priorities, values and interests (see Office of National Statistics 2022). On the one hand, "Household Cost Indices" aim to reflect changes in the cost of living of different household types (e.g. pensioners), using a form of aggregation that counts every household equally rather than by share of overall spending. And another new type of index, the "Least Cost Index" is aimed to measure the cheapest cost of common household items, using web-scraped data from major supermarkets. These latest planned innovations are at least in part a response to the kinds of controversy mentioned in the introduction. The Least Cost Index in particular appears to be an attempt to capture what anti-poverty campaigners have asked for. They are also enabled by technological innovation that make this greater variety feasible, in particular the use of big data — just one example of how many of the practical and cost considerations in favour of monism no longer apply. As a result, the public and policy-makers will have, and already to some extent have, a menu of indicators available to them that capture a variety of different potential policy priorities and aspects of the cost of living crisis, akin to the dashboard

approach. The recent innovations also include an element of customisation, in that the ONS now allows members of the public to estimate a personalised cost-of-living index on their website, based on household income and spending patterns.

My contention is that these are all good examples of how greater value pluralism can be achieved for social scientific indicators. The availability of multiple indicators as well as the possibility of customisation of highly aggregate indicators should be extended and practiced more widely. These approaches have the potential to go a long way towards addressing the problems of epistemic inequality discussed in the last section. In the first instance, they make the results of social scientific research value-apt, and thus useful and trustworthy, for a larger number of people, and in relation to a larger number of potential policy priorities. This reduction of epistemic inequality is good for the functioning of democracy: It reduces power imbalances, and counteracts the entrenchment of past policy priorities via single dominant social scientific frameworks. It also has the potential to lead to better public decisions, for three reasons: When more people can contribute as equals in public deliberation, this deliberation, which feeds into public decision-making, is likely improved; policy-makers can better tailor the available social scientific evidence to their needs, making them more effective at pursuing their chosen goals; and citizens can better hold policy-makers to account for their decisions.

The last point merits some elaboration, and it relates to the democratic advantages of value pluralist frameworks. If practiced well, value pluralist frameworks make it more transparent what value judgements were made by policy-makers to justify their ultimate decisions, rather than many of those judgements being intransparently deferred to social scientists. These approaches would make it more evident that whether, for instance, one policy raises wellbeing more than another is not only an empirical question but also a question of value. Science exits earlier, as it were, and policy-makers have less opportunity to hide behind 'following the science'. Citizens could be enabled to see how policy-makers in fact made value trade-offs, judge whether they would have made them differently, and have access to information about what the effects of different policy choices would have been along the dimensions that they most care about. This would be especially helpful where this allows us to identify when there is broad agreement between different ways of aggregating or different dimensions of wellbeing, enabling the potential of a kind of local 'overlapping consensus' (see McLeod 2018 on the use of the New Zealand dashboard in this way). Or otherwise it could help each citizen identify what compromises chosen policies imply for them.

For these potential advantages to be reaped, however, it is important that value pluralist frameworks are accessible to and easily usable by the public, and that there is transparency about how they are used by policy-makers in their decision-making. There is, of course, only so much social scientists can do to ensure accessibility, usability and transparency. And there are reasons to think that the bottleneck that ensures only a few highly aggregate indicators gather much public attention lies less with statistical agencies nowadays and more with the media (as argued, e.g., by Jesinghaus 2018). But what social scientists working on and with value-laden social scientific indicators (whether they

are adopted as official decision-making tools or not) *can* do is be transparent about any value judgements they do make, present the results of their work as valid only against the background of the value judgements made, and take the value customisation of indicators as an important research programme. On a collective level, value pluralism is served by the social scientific community being organised in such a way as to ensure greater diversity of perspectives on the value-laden concepts to be studied, and resisting pressures towards monism.[16] Such pressures are often keenly felt — for instance, critics of GDP as a measure of human progress have frequently argued that the only way to topple GDP is to present a single alternative all-things considered metric (such as the HDI or WELLBYs) that could become a similar singular focus of public and political attention (as discussed, e.g. in Stiglitz et al. 2009, p.207). Even those who acknowledge the problems with such single metrics often argue that those problems are a price worth paying if the proposed alternatives are at least better than the alternative, namely GDP.[17] Such reasoning not only adds to the obstacles for a move towards greater pluralism. But insofar as it is motivated by value-related advantages of alternatives over GDP, it is itself a technocratic impulse that is problematic on the democratic grounds canvassed earlier: It assumes that social scientists have and should use the power to influence what values should be the focus of public attention.

Finally, let me consider three potential concerns regarding the call for greater value pluralism, and explain why I think they can be sufficiently addressed in the case of value-laden indicators at least. The first relates to the idea that value pluralist frameworks would need to be accessible and easily usable by the public to reap the benefits I have argued for. The challenge is that these frameworks will inevitably bring with them greater complexity, undermining their usability. Moreover, thinking back to the desideratum of policy-guidance, whatever guidance is provided by these frameworks will be more ambiguous, seemingly compromising on the desideratum.

In response, I think the examples presented above show that a more pluralist approach is not inconsistent with user-friendliness and a sufficient degree of policy-guidance. This is significantly helped by the availability of well-designed interactive digital platforms. On the OECD website, for instance, users can adjust the weightings of different components of the Better Life Index using simple sliders, which immediately adjusts the ranking of different countries in a visually intuitive way. The ONS's personalised cost-of-living index is similarly easy to access and understand. Digital interfaces for policy dashboards both present a variety of information in one place to allow for a holistic assessment, but also let users click on different components of the dashboard to access more detailed information.

[16] Note that this may actually leave *more* freedom for individual scientists than the approaches favouring democratic alignment discussed above. In the context of a value pluralistic practice by the scientific community as a whole, individual scientists or teams need not make sure value judgements are aligned with the outcome of public deliberation, and are free to make them according to their own theorising, interests, or according to what perspectives have previously been neglected. Such 'in house' value judgements, criticised, e.g., by Alexandrova and Fabian (2022) need not be problematic, and may indeed be beneficial in the context of a wider value pluralism.

[17] See, for instance, Bell and Morse (2018).

Granted, these tools are still more complex, and still give policy advice that is more ambiguous, in the sense that users need to customise the indicators or aggregate different indicators into an all-things-considered evaluation themselves. Complexity of course needs to be kept in check, and this puts limits on the extent of value pluralism that can be realised in practice; there is a limit to how many things we can include on a dashboard. Complexity also calls for the implementation of these frameworks to be accompanied with public education campaigns — especially in light of the fact that awareness of their existence, and the ability and time to understand and use them may itself be unequally distributed in the population otherwise.

The remaining ambiguity in guidance, on the other hand, is actually a good thing when it stems from policy-makers and other users having to make value trade-offs explicitly themselves, for the reasons just discussed. One caveat here is that commitment to some specific action-guiding metric sometimes plays an important role in ensuring consistency and coordination within public administration. Public health bodies, for instance, should not switch back and forth between using quality-adjusted life years (QALYs) for programme evaluation one day and disability-adjusted life years (DALYs) the next.[18] However, my argument highlights the importance of making sure that the privileged use of a single metric within government really is justified all-things-considered by the consistency and coordination it enables. And value pluralism within the wider scientific literature is still important, firstly to allow for and inform public deliberation about potential future changes in government practice, and secondly because there is in practice often leeway to deviate from what privileged metrics like QALYs recommend on a case-by-case basis.

A second, related concern about greater pluralism is connected to the leeway that the pluralist approaches give to users. And that is that this leeway could be exploited in strategic interactions to get the outputs that serve a political or economic actor's self-interest, rather than those that accurately represent the social world given the actor's values. In the case of social scientific indices, this is sometimes referred to as 'index-rate shopping' (see UK Statistics Authority 2015), and occurs, for instance, when businesses use one (lower) price index to justify not raising workers' wages very much, while using another (higher) price index to justify raising prices for customers, without a good reason grounded in the nature of the two different price indices.

What this potential problem highlights, I think, is the importance of transparency and public accessibility. If everybody has equal access to pluralist tools such as policy dashboards or customisable indices, then gaming of the system in these ways would be easily detected and could be called out. Concerns about the exploitation of flexible tools of policy evaluation appear to often be fuelled by an understandable mistrust amongst social scientists of the use of social scientific results by policy-makers. However, if such mistrust drives social scientists to advocate for single metrics that impose discipline on policy-makers, this comes at the cost of replacing the judgements of an entity that is, in democracies, democratically accountable (governments) with judgements by groups of people that are typically not (social scientists). When transparency and accessibility can

[18]Thanks to Stephen John for this point.

also counteract the potential problem of gaming value pluralist frameworks, this seems like too high a price to pay.

The third concern I want to address is that a value pluralist approach to social science may lead to a further problematic politicisation of social science, undermining trust in science as an objective, commonly acceptable backdrop to public deliberation. The worry more specifically is about a kind of partisan epistemology, whereby different parts of the political spectrum rely on different measures, studies, and experts, with no ability to communicate about social scientific questions across the political divide.[19] This, I think, is a serious concern any move towards greater value pluralism needs to grapple with. But again, I think in the case specifically of value-laden social scientific indicators and the pluralist approaches I outlined, the concern can be answered.

For one, the presence and unavoidability of value judgements is quite obvious when it comes to many social scientific indicators. It should be no great surprise that what the most appropriate measure of wellbeing is in some context depends in part on what we think wellbeing is, which is a judgement of value. When different social scientific indices clearly and transparently track different values, this may then not undermine trust in social science in general. Relatedly, what these indicators study is arguably unavoidably politicised — and then it seems better for them to be politicised openly and transparently, rather than in a clandestine way.

Secondly, the kinds of pluralist approaches I outlined do still involve a common framework that could serve as the commonly acceptable backdrop to public deliberation — that is, the policy dashboard or customisable indicator could serve that role, while the way in which the framework is applied is transparently a question of value rather than a purely scientific one. The frameworks also enable everybody to accept some measurement or assessment as appropriate conditional on some specific set of values, even if these are not personally shared. If some values are agreed upon as the basis for a particular policy choice, this may even allow for a kind of general 'deliberative acceptance' of the corresponding measures and studies.[20] It is sometimes argued that trust in individual scientific experts comes in part from value alignment between expert and the users of the expertise.[21] In the context of unavoidable value disagreement, we could potentially think of *alignability* — the possibility to tailor scientific results to one's values — as a source of trust in science as a whole.

Ultimately, while I have argued that the avoidance of epistemic inequality regarding matters of public concern provides strong reasons in favour of a more value pluralist social science, this needs to be balanced against pragmatic concerns and the potential dangers of partisan epistemology. What I have aimed to show is that the balance can be struck in a way that allows for significant value pluralism in the case of many value-laden social

[19] On this general concern, though not specifically in the context of social scientific indicators, see Schroeder (2021), Rini (2017), and Contessa (2022).

[20] See Beatty and Moore (2010) on the notion of deliberative acceptance when reasoning together.

[21] See DiMarco (forthcoming) for discussion.

scientific indicators, and significantly more pluralism than the status quo. It remains to be seen to what extent and in what forms greater value pluralism is feasible and all-things-considered desirable beyond.

6 Conclusion

The value-ladenness of much policy-relevant research raises the danger of technocracy: value judgements that end up having an impact on public policy being made in a way that bypasses normal processes of democratic legitimisation. But beyond that, I have argued that there is a further neglected democratic challenge for policy-relevant social science. The value judgements that need to be made in policy-relevant research are often contentious ones, ones that there is significant disagreement about. And this is more likely the case the more directly policy-guiding this research aims to be. Social scientific research that embeds just one value perspective — whether it is democratically legitimated as the basis for a policy choice or not — will inevitably be fully informative only for a subset of the population, those that share the value perspective embedded in the research. This creates an epistemic inequality that is potentially problematic according to all major normative theories of democracy, as it inhibits some from fully participating in democratic deliberation going forward.

While this is a potential challenge for all policy-relevant value-laden science, how big a problem this is depends on just how contentious the relevant value judgements are, and just how central they are to important policy choices to be made. The potential remedy, as we have seen, is a more value pluralist approach. But value pluralism comes with its own costs and challenges. The central case I discussed in this paper, that of social-scientific indicators meant to be policy-guiding, such as measures of the cost of living and wellbeing, is one where the challenge epistemic inequality poses is especially pressing: These indicators do have a very direct impact on public policy, and in virtue of aiming to be policy-guiding, they are highly aggregate, and thus also embed more contentious value judgements. At the same time, however, as I argued in the last section, there are feasible ways to implement greater value pluralism for such indicators that circumvent most of the potential problems that value pluralism may pose more generally. A concrete implication of my argument is that these value pluralist frameworks should be adopted more widely. The broader point is that more attention should be payed in the values in science literature to epistemic inequality of the type I have discussed here. It is worth exploring if there are other areas where greater value pluralism is both desirable and feasible, and if so, what this implies for scientific practice.

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