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Wellbeing Public Policy Needs More Theory

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Abstract

There is presently a groundswell of enthusiasm and advocacy for "wellbeing public policy" (WPP), especially as part of the movement to go "beyond GDP". While recognising the merits of this proposal, this paper advocates for a cautious approach owing to our poor theoretical understanding of both wellbeing and policy applications of it. There are certainly well-established empirical regularities in wellbeing data, many of which have policy implications. However, we presently lack a causal understanding of these empirical regularities, and wellbeing change more broadly. They could be explained by a number of mutually exclusive theoretical accounts. We also lack a sophisticated understanding of how these causal mechanisms interact with prevailing socioeconomic, institutional, and cultural structures. In the context of public policy, these issues raise the risk of policymakers naively pulling the wrong causal lever, with unintended consequences. This paper explains how these issues can undermine the robustness, generalisability, and persistence of wellbeing public policies, and outlines a research agenda to address the most pressing gaps in our knowledge.

Introduction

"Wellbeing" is increasingly advocated as a more appropriate target for shaping

public policy than conventional economic metrics, and has attracted significant policy

attention (e.g. OECD 2020, NZ Treasury 2018, De Neve Krueger & Stone 2014) and

advocacy (e.g. Frijters et al. 2020). The adoption of wellbeing policies is attractive in

recognising the desirability of going 'beyond GDP' in order to assess societal progress,

including achievement of the Sustainable Development Goals (De Neve & Sachs 2020).

There is growing consensus for this aim. In addition, a range of wellbeing metrics based

on large-scale surveys is increasingly available, with longer time series and more

complete coverage (across countries and at higher resolution within countries),

enabling a large and growing body of empirical investigation. As Adler & Seligman

(2016, p. 1) express it:

> If existing economic measures of prosperity are complemented with
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> wellbeing metrics that better capture changes in individuals' quality of life,
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> decision makers will be better informed to assess and design policy. The
>
> science of wellbeing has yielded extensive knowledge and measurement
>
> instruments during more than three decades.

There is indeed a large and growing body of empirical work linking wellbeing

measures—usually measures of subjective wellbeing (SWB)—to socio-economic

variables and policy levers. SWB, at least in the technical form in which it is defined in

psychological science and happiness economics, consists of experiences and evaluations of life. Experiences are typically measured by asking people whether they have experienced certain moods and emotions in the last 24 hours, such joy, happiness, stress, or loneliness. Evaluations are typically measured by asking people to assess their life satisfaction and sense of meaning and purpose on a scale from 1–10.

One concern with this push to implement wellbeing public policy (WPP) is that policymakers may start making decisions impacting citizens' lives based on 'black box' relationships. Numerous commentators have noted that the subjective wellbeing literature in particular has (deliberately and for defensible reasons) taken a largely atheoretic approach to studying its constructs of interest (Alexandrova 2017, Cohen Kaminitz 2018, Ryff 1989, Argyle 2001, Marsh et al. 2020). This means that we lack, among other things, a mechanistic understanding of how SWB interacts with many of its covariates. By mechanistic understanding we mean knowledge of the causal pathway that reliably connects putative cause and effect.[1] Such an understanding is widely thought to be necessary for evidence-based pursuits, be it medicine, care, or policy (Parkinnen et al. 2018, Jenke 2021). Most of the headline findings in the SWB literature could potentially be explained by multiple underlying drivers, and policy that takes little account of this risks pulling the wrong lever, as it were, with unintended consequences. Mitigating such risks requires that SWB science develop a more comprehensive theoretical understanding of its constructs of interest. In particular,

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[1] A brief note on terminology: economists typically use the term "structural" in the way we use "mechanistic", as in "structural equation". We instead use the sociological meaning of structural, where it refers to the institutional, socio-cultural, economic, and political configuration of society.

effective policymaking would require a more detailed understanding of how aspects of SWB (mood, satisfaction, purpose, etc.) and their covariates are causally related (Bishop 2015). This would allow policy to identify more confidently the correct lever to pull in order to improve particular aspects of SWB.

The concerns outlined above are relevant even for the few causal claims currently made in the SWB policy literature, and for lines of inquiry that take care to address simultaneity, or two-way relationships. This is because the kind of empirical relationships captured in the broad WPP literature are vulnerable to structural breaks known in the context of macroeconomics as the Lucas critique (Lucas 1976), and also identified in the more recent literature on the use of data science in decision making (e.g. Lazer et al. 2014). Concisely, an estimated relationship between wellbeing and some policy variable, like education, possibly depends on the influence of many other variables, such as prevailing macroeconomic conditions, geographic factors like local industries, social factors like community infrastructure and culture, political and policy factors like tax and transfer settings, and individual factors like personality type. A change in any of these structural items may change the estimated relationship between wellbeing and whatever covariate policymakers might target to improve it. A sophisticated theoretical understanding of wellbeing would help navigate the thicket of possible influences and adjust policy accordingly. In such forecasting contexts it also typically necessary to develop statistical techniques to continuously update modelled relationships in order to mitigate the effects of structural breaks. What's more, these

structural issues undermine attempts to derive theory directly from empirical regularities, as these are likely to change.

We elaborate these arguments concerning the need for more theory and mechanistic evidence in WPP. We illustrate the way wellbeing data can be used to justify contrasting policies, and argue for due caution in interpreting reduced form empirical results in wellbeing, unless justified by a theory that imposes structure on them. In the absence of theory, there is substantial risk of empirical results pertaining to wellbeing lacking robustness, persistence, or generalizability. Our argument that SWB theory is not ready for policy complements recent analyses arguing that SWB measurement is not ready for policy (Benjamin et al. 2020), and that more ethical analysis needs to be done to bridge wellbeing science into WPP (Fabian & Pykett 2021). There is an important research agenda to develop and test theoretical models of the determinants of wellbeing. However, we want to stress that our argument is not a counsel to perfection. Change is a constant of human society, and so structural breaks are an unavoidable feature of most social scientific analysis. Precise mechanistic analysis of social phenomena is also notoriously difficult, and yet we seem to be able to incrementally improve policy effectiveness. Central bankers, for example, seem more in control today than during the great depression, despite the extreme difficulty associated with experimental analysis of macroeconomics. Our intention is simply to explain why caution is required with WPP at this juncture and outline how future research could ameliorate that need to be cautious.

Wellbeing policies as 'black boxes'

A number of empirical regularities are prominent in the wellbeing literature, concerning the links between SWB and other variables of interest (see Clark et al. 2018 for a survey and Diener, Oshi & Tay 2018 for a summary). These can oftentimes be explained by several competing theories that point to different causal factors. We analyse some examples below to illustrate the ways this can be problematic for public policy.

Correlational evidence does not equal mechanistic evidence

One of the best known empirical regularities is the Easterlin Paradox (Easterlin 1974). This was the observation that life satisfaction was correlated with income in cross-sectional data both within and across countries, but was not correlated with income growth over time (Easterlin et al. 2017). The argument is therefore made that *relative* income is a strong driver of people's reported life satisfaction (Boyce et al. 2010) whereas absolute income levels have a comparatively weak influence. A common policy recommendation justified on the basis of the paradox is progressive consumption taxation to reduce relative disparities in income and avert a positional 'arms race' (e.g. Frank 2008, Oishi et al. 2018). These calls continue to be made despite high profile empirical critiques of the Easterlin paradox, such as Stevenson and Wolfers (2013).

While such tax policies may be desirable policies for several reasons, not least social justice, the correlational evidence is an insufficient basis for advocating them on

wellbeing grounds, especially in the absence of a mechanistic explanation. First, life

satisfaction is measured on a bounded scale whereas GDP is free to grow indefinitely.

As such, there are different degrees of integration in the time series metrics for (the

change in) life satisfaction and (the change in) GDP. That is to say, the difference in

their means does not remain constant over time. Failure to account for this in an

autoregressive framework leads to biased estimates (Engel & Granger 1987). As such,

GDP and satisfaction may appear not to be correlated but may nevertheless be so in

terms of underlying structure. Secondly, without a mechanistic model of the links

between income and wellbeing, there is no reason to think that the relationship would

in any case be stable over any length of time, or across very different countries. The

observational data may well be the outcome of a set of shifting underlying

relationships. For example, the strength of the relationship may depend on fluid

cultural attitudes towards material success. Unfortunately, the existing attempts to

describe the causal underpinnings of these effects are not enough, as we shall see.

Shifting relationships between underlying variables

This issue is well illustrated by studies of the positive association between

progressive taxation and aggregate life satisfaction. To date, the causal underpinnings

of this relationship have not been isolated. Frank (2008) emphasises status anxiety and

positional competition, which is supposedly lessened by aggressive progressive

taxation. Oishi et al. (2018) provide evidence that progressive taxation is correlated

with increases in generalised social trust, which is in turn correlated with life

satisfaction. These are reasonable hypotheses with some statistical backing. However, the association between taxation and life satisfaction may be driven by omitted variables that are correlated with status anxiety, positional competition, social trust, and progressive taxation. Notably, there is some evidence that could be driven by social security spending, which tends to go hand in hand with progressive taxation (Pacek and Radcliff 2008). Insofar as periods of relatively progressive taxation are correlated with relatively progressive political parties being in power, the relationship could also be driven by factors associated with the policy inclinations of such parties. Oishi et al. (ibid.) use US data from 1964–2014. Their result might thus be driven by efforts at racial justice, voter enfranchisement, women's empowerment, and migration policy, among others. There are no attempts to control for such factors in the statistical modelling, let alone isolate the direct causal effect of progressive taxation.

Instability of metrics/measurements

An additional issue for longitudinal life satisfaction studies is that the 'true' satisfaction meant to be measured by the standard surveys may itself have a shifting relationship to the metrics available. SWB scholars since Frederick and Loewenstein (1999) have noted the possibility of scale-norming. This is where the qualitative meaning of the points on a respondent's scale changes over time such that the same numerical response across two periods can correspond to two different levels of absolute life satisfaction. Note that this is distinct from adaptation, which involves a real change in feelings, and reference point shifts, which is where scale norming leads

to a real change in feelings, as when practicing gratitude (Fabian 2021). Scale norming is entirely a measurement phenomenon. There is extensive evidence for scale norming in quality of life studies where it is referred to as response shift (Schwartz 2016), and some evidence for it in the specific case of life satisfaction scales from the vignette literature (Angelini et al. 2013, Kapteyn et al. 2010, 2013, Montgomery 2016, Kaiser 2021).

The under-investigated issue of scale norming calls into question claims that life satisfaction scales are "good enough" for policy work (Adler & Seligman 2016, OECD 2013). They are good enough for *some* policy applications, notably those where large samples are possible and descriptive analysis of broad trends is sufficient to draw valuable policy lessons (see Graham 2017 for an example). But where long time horizons, structural breaks, a high degree of precision or other red flags for inconsistent scale use are concerned, we cannot (yet) be confident in these measures. For example, adaptation in life satisfaction over time is currently considered pernicious to many policy efforts (Loewenstein & Ubel 2008, Luechinger & Raschky 2009). If people get used to policy efforts, such as income growth, or lack thereof, such as natural disasters, then what's the point? But the evidence for scale norming suggests that these adaptation effects might be exaggerated due to a bias introduced by not accounting for scale norming. There may be many more avenues for enduringly improving SWB than we currently believe.

It is customary to appeal to various headline psychometric statistics about reliability and correlations with other wellbeing measures used in advocacy of life

satisfaction scales (Diener et al. 2009, Clark et al. 2018). However, being only correlational, these do not speak to the issue of scale-norming. Indeed, they conceal that we have a poor understanding of what actually produces "life satisfaction", including what goes on, cognitively and linguistically, when people answer life satisfaction questions. What factors do they consider in their subjective assessments, and what is the nature of the reporting function that maps these assessments into responses on scale instruments (Oswald 2008)?

Shifting relationships at different scales of analysis

Another empirical finding consistent with (at least) two different theories is the often reported result that people are happier in younger and older age than in middle age. There is evidence of this U-shaped relationship with age from large-scale surveys across different countries and time periods (Blanchflower & Oswald 2008), although it is not universally confirmed in the literature (Galambos et al. 2020). In addition, there are significant differences in SWB measures in different countries or regions, with the U-shape strongest in the rich OECD countries and absent in countries of the Middle East and former Communist region (Steptoe et al., 2015). Nevertheless, the U-shape has entered the received wisdom concerning SWB (Rauch 2018). What might explain it? Different theories, with potentially differing implications, are compatible with the U-shaped empirics. From economic theory, the standard lifecycle income and consumption hypothesis would suggest that individuals work most intensely in middle age to accumulate income, sacrificing wellbeing, and are then able to enjoy the fruits

of their efforts in older age (Deaton 2005). A second theory compatible with the evidence is socio-emotional selectivity theory, which posits that individuals get better at managing emotions as they get older and gain emotional maturity (Carstensen et al. 2003). A third theoretical approach, noting the regional differences, might focus on explanatory variables such as the historical and cultural context, or social support for the elderly. So what should policy target? Lifecyle income dynamics, emotional skills, or integrating the elderly into the community? Without richer theory and more precise hypothesis testing, the answer is not clear.

An additional complicating factor for theory-agnostic WPP is that that different empirical relationships between SWB and its covariates emerge at different scales of analysis, such as individual, local area, or national. This is essentially due to averaging when the effect of an independent variable, such as public transport infrastructure, is heterogenous and therefore not constant across subgroups of a population. With heterogenous effects, the weights given to different subgroups matter for the magnitude (and possibly even for the direction) of the average effect. Without a suitable theoretical underpinning, we cannot specify the correct process of aggregation and thus end up with policy recommendations that are not mechanistically valid. This is a similar argument as that made, in the context of labour market heterogeneity, by Chang et al. (2013). Against the background of the Lucas critique, we should not only worry about policy-invariance in terms of model coefficients, but also in terms of the aggregation function. Chang et al. show that, within their framework, both aggregate labour supply elasticity and the average level of total factor productivity are not policy

invariant because they depend on the cross-sectional distributions of reservation wages and employees' productivities respectively, which in turn depend on fiscal policy.

We illustrate how this is relevant for wellbeing in Felici and Agarwala (2021), work in progress that documents how the relationship between having a degree and reported life satisfaction is heterogeneous across the distribution of life satisfaction, with a stronger, positive relationship at low levels of life satisfaction and a weaker one at higher levels, even turning negative at very high levels. We argue that this is consistent with a theory of homeostasis in SWB, as described in Capic et al. (2018), where education acts as a buffer to protect one's SWB from shocks. Depending on what weight is given to different types of individuals, as well as depending on the composition of the population in terms of different types of individuals, the aggregate average relationship of education and SWB will differ, possibly so much as to switch sign. This compositional effect could explain the different estimates of the effect of education on SWB at different geographic scales, as pointed out in Florida et al. (2013). They find that education is one of the strongest predictors of life satisfaction at the level of cities, while in the literature it is generally found to be a weak predictor at the individual level.

In summary, there are several well-established empirical regularities in SWB research, but this is insufficient knowledge for most policy conclusions. The causal mechanisms of these regularities are hidden in black boxes, and not enough effort has been expended to clearly specify and adjudicate between competing theories that might explain them. Yet policy makers need a mechanistic understanding of causation

in order to know where to focus their efforts, and in order to build statistical models that can evolve alongside structural changes in society and the economy. This does not require "economic" modelling built on rational choice theory. But it does require a theoretical framework that spells out starting assumptions and produces testable predictions. We expand on this analysis in the following sections where we focus more purposefully on policy applications of SWB and demonstrate how a lack of theory can undermine their robustness, persistence, and generalizability.

Robustness

Consistent with the recognition in economics of the validity of the Lucas critique, wellbeing policies based on non-structural estimates may not be robust.[2] By this we mean that the combined effect of the variables on the right hand side of regressions estimating the impact of a policy will vary with structural factors, making those policies highly sensitive to changes in their context. For example, providing improved access to mental health care could be expected to improve people's SWB on the basis of the consistent finding of a relationship in the literature (Clark et al. 2018), and is surely a desirable policy in its own right. But if there are structural determinants of SWB, one of which changes, additional mental health care would no longer have the expected SWB impact implied by the established empirical relationship. It is impossible on the basis of correlational relationships to rule out the possibility that mental health metrics and SWB metrics are *jointly determined* by underlying structural factors. Indeed,

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[2] Grüne-Yanoff (2016) makes this point in relation to policies derived from behavioural psychology, arguably the first large-scale application of psychological science to public policy.

unless the regressions are credibly derived from a mechanistic model, this is highly likely to be the case given the almost tautological relationship between illbeing and depression. Of course, in order to specify a mechanistic model, some theory regarding what the relevant factors are is required.

Consider another example: the extension of 'social prescribing' to support people's mental health or wellbeing in the face of their complex needs. Social prescribing involves linking patients in primary care or clients in social services to sources of support within their community. There is no systematic evidence of the efficacy of such programs (Bickerdike et al. 2016), although there are some long-established, well-regarded local schemes. The advocacy of social prescribing seems to rest on atheoretical assumptions about a consistent positive link between the various kinds of interventions that come under the social prescribing rubric and wellbeing outcomes. One theoretical explanation for this observed link, from social psychology, is that group membership is in itself a source of wellbeing (Stevenson et al. 2017). However, a more biological perspective on wellbeing emphasising physical channels such as lower cortisol levels might lead to a prescription of exercise. This could be facilitated by exercising socially, but it is the exercise that causes the wellbeing improvement, not the social element (Steptoe et al. 2015). Thus, a policy that brings about the social element but not the exercise would be ineffective, and the relationship between social prescribing and wellbeing would turn out not to be robust. Similarly, other theories might justify social prescription with different underlying drivers of wellbeing change, such as self-expression through the arts, reading self-help books, the

'eco-therapy' of being in green space, or educational opportunities. Again, what is needed is a theory that isolates different potential drivers of wellbeing so that precise hypotheses can be tested regarding why a particular policy has an impact.

Generalisability

A closely related issue here is the external validity of theory-free empirical results, which refers to the extent to which results can be generalised beyond the context of a particular policy intervention. Suppose a randomized-control trial or other stringent evaluation methodology identified one of the many social prescriptions outlined above, say art therapy, as having been efficacious in the small-scale contexts in which it has been used. Such evidence is rare in the wellbeing space, but emerging (See, for example, Heintzelmann et al. 2020, Dorsett & Oswald 2014, Lordan & McGuire 2018). This evidence has strong internal validity in the sense that it effectively assesses the impact of the intervention in question. But that intervention rests on a range of structural factors that are potentially unique to its context. This art therapy program may have been run by a particularly charismatic teacher, or involved participants who gelled exceptionally well, or been strikingly well supported by the wider community in the form of public art exhibitions. Given these contextual factors, there is no reason to think, *absent a theoretical model speaking to its generalisability*, that this intervention would be effective at large scale or other settings that do not match its peculiar context (Cartwright & Deaton 2018).

It is worth mentioning that this issue of generalizability, like all the other issues we discuss in this article, applies equally to interventions where SWB itself is the policy variable. For example, consider Bellet et al. (2019), an analysis of the effect of good mood on productivity. The authors use data on the sales and other workplace behaviour of call centre employees working for a telecoms company, combined with weather data and data about the number of workers who would be exposed to that weather via windows. There is an established empirical relationship between good weather and good mood. Bellet et al. find that workers exposed to good weather and thus likely to be in a good mood make more sales. The internal validity of this study is high given the quality of its data and the ability to exploit exogenous variation in weather. This is exactly the sort of high quality causal analysis that WPP needs more of. But what about external validity? What is it about good mood that results in higher 'productivity'? Bellet et al. find evidence for three channels: happy workers organise their time more efficiently, answer a higher number of calls per hour, and convert more calls into sales. The third effect is dramatically stronger than the other two. But it is also the most theoretically vague. What is it about mood that makes you better at *sales*? Perhaps good mood gives you a more congenial demeanour that in turn improves your salesmanship? If that's the case, then it is unlikely that this 'productivity' effect would generalise to industries where output is not measured in direct sales. There's also a question of whether mood effects *driven by the weather* would be identical to mood effects driven by other interventions, notably managerial efforts. The exogenous nature of the weather is not only statistically convenient, it is also convenient in that one

cannot view it as a cynical ploy by management to get more effort out of you. Not necessarily so for other interventions designed to improve mood with the aim of raising productivity.

Persistence

Wellbeing policies, like any other type of policy including behavioural interventions, may be vulnerable to changes in behaviour or structure *in response to the policy intervention,* that subsequently break the previously observed relationship. The relationship would in this case not be *persistent* and is thus not, on its own, good grounds for a policy. This is a broader issue in economic policy advice (Coyle 2021); for example, policies are often implemented without regard to the possibility or likelihood of risk-compensating behaviour by the target population, such as compulsory seat belt laws that improved driver safety but at the likely expense of reduced pedestrian safety (Hedlund 2000).

An example of WPP where such behavioural responses could be expected is a progressive consumption tax intended to limit positional arms races and the deleterious effects of relative status comparisons on life satisfaction (Frank 2008). There is an implicit theory that if such a tax were introduced on certain 'luxury' goods, consumers would stop engaging in status-seeking purchases, because their preferences and hence demand elasticities, are fixed. If expensive cars become more costly because of a tax, for example, consumers who would otherwise have bought one as a form of conspicuous consumption will not do so, and will reallocate their budget to a range of

other goods and services that are not status-related, with no loss in terms of their wellbeing. Or so the thinking goes. An alternative theory, arguably more plausible, is that status-seeking behaviour is unavoidable (e.g. Anderson et al. 2015) and that preferences for specific goods are highly malleable. Luxury goods taxes would then either have no effect on the consumption of luxury items, or would simply see new, untaxed items be culturally empowered as status symbols (say Bling H_2O and other luxury varieties of bottled water). In this case, the policy recommendation intended to avoid arms races that do not lead to higher measured SWB outcomes might be a different one, such as progressive income or wealth taxation to reduce the scope for positional spending.

A Theory "crisis"?

The concerns outlined above regarding the need for more theory in SWB studies suggest that the field may be one node of the broader "theory crisis" that currently afflicts psychological science (Eronen & Bringmann 2021, Reber 2016). Several commentaries have argued, in one way or another, that psychology needs to put more effort into developing high quality theories relative to the current emphasis on improving statistical techniques and generating more replications (Fiedler 2017, Fried 2020, Klein 2014, Muthukrishna & Henrich 2019). The crisis is in part a function of issues germane to psychology, such as the "fat handedness" of interventions (Baumgartner & Gebharter 2016). This is where it is impossible to separate psychological items so as to manipulate or affect them individually, which makes

causal modelling challenging. For example, it is hard to engender feelings of loss of control without simultaneously affecting motivation and anxiety. But the crisis is also a function of particular practices among psychologists, notably the tendency to simply rephrase empirical regularities as theory, which does nothing to explain those regularities (Gigerenzer 2010). The purported U-shaped relationship between life satisfaction and age is one example. Dozens of papers have gone back and forth on this empirical result arguing over data and statistical methods (Blanchflower 2020). Very few have posited let alone tested theories that might explain what drives this phenomenon if it is in fact real. In the meantime, outsiders to the field are introduced to the U-shape as one of its main theoretical postulates.

There are two corollary aspects of the theory crisis that seem relevant to SWB research and WPP. The first is debates over the need for formal modelling in psychology (Borsboom et al. 2021). The second is calls to employ more of the quasi-experimental statistical techniques designed by economists to establish causal relationship outside of the laboratory (Grosz et al. 2020). Our analysis of how empirical relationships between SWB and its covariates depend on fluid structural factors suggests that some *a priori* modelling of the causes and constituents of SWB and their interrelationships, rather than merely deriving such models from empirical coefficients, would be valuable. Our analysis also suggested that relying on correlation coefficients alone, even from very large social surveys like Gallup's World Values Survey, the GSOEP, BHPS, or HILDA, is unlikely to yield insights that are robust, persistent, or provide clear policy inferences. Causal analyses using quasi experimental techniques

like regression discontinuity designs and differences-in-differences at least isolate a particular bivariate relationship. While the estimated size of these relationships may still be sensitive to structural changes, identifying causal relationships nonetheless contributes substantially to theory building activities. However, it is worth noting that economics is presently grappling with the limits of generalising from even high quality causal studies. As Cartwright and Hardie (2012) explain, evidence-based policy requires support for *local* causal claims first and foremost. This requires theory, internal validity, and an understanding of contextual factors, which may require qualitative methods. The wellbeing sciences should not copy economics in assuming that ever more rigorous statistical methods will solve all evidential problems.

Conclusion

We have argued that wellbeing data and the empirical regularities recorded in the literature can justify a number of different and even contrasting policies depending on the underlying theory of wellbeing. There is a strong case for considering wellbeing as an appropriate aim for policy outcomes, not least the reductive limits of referring to income growth alone. The policy interest in a wider range of success metrics is welcome. However, it would be equally reductive to determine policies with reference to SWB metrics alone. There are a number of reasons to resist this. As discussed here, there are different results at different scales of aggregation, and scale norming makes the measures hard to interpret. There is also little variation in aggregate SWB measures and therefore little information content for policy choices.

Our main argument, however, is simply that policies for wellbeing need more theory, including what exactly SWB is, how its components fit together, how they interact with social and economic conditions, and how policy interventions affect them. This is not a demand for perfect knowledge, but the evidence provided in the SWB literature is not yet sufficient for policy choices. Causal inference is impossible without bringing to bear some theory-based structure from outside the set of highly interrelated, serially correlated observational SWB variables considered in the empirical literature (Cunningham 2021, Pearl 2019). Policy recommendations made on the basis of relationships identified in the wellbeing literature often have an implicit theory embedded in their assumptions (including normative ones) about the link between changes in levers and measured SWB outcomes. Wellbeing theories, which may differ or conflict with each other, should be explicit. As we have described here, there is a rich research agenda to pursue.

While this is not the place to specify what a wellbeing theory of wellbeing might look like, our analysis does suggest some things a theory suitable for policy should be able to do. First, it should explain how measures of wellbeing work. For example, what do life satisfaction judgements depend on, and how are these mapped into responses on life satisfaction metrics? Second, it should describe mechanistic relationships between wellbeing and its covariates, thereby pointing to levers for policymakers to pull. For example, does employment directly improve life satisfaction, or is the relationship rather a function of things contingent on a job, like a social life at work, societal approval, goal achievement, basic psychological needs for competence, or

identity? Third, a mechanistic understanding of the deep determinants of wellbeing would illuminate how sensitive these deep mechanisms are to shifting structural factors. It would reveal what drivers of wellbeing are germane to particular contexts and scales of analysis, and which are in some sense universal. There are encouraging efforts in this direction. For example, Martela and Sheldon (2019) recently developed a model linking SWB, motivation, and basic psychological needs for autonomy, competence, and relatedness. Bedford-Peterson et al. (2019) have developed links between values, personality, and SWB. Future research in this vein could be prosecuted as part of the current turn towards cross-cultural analysis, explicitly embracing the role of contextual factors.

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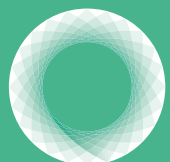
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