

Capabilities, Subjective Wellbeing and Public Policy: A Response to Austin (2016)

Robert A. Cummins¹ · Kenneth C. Land²

Accepted: 23 September 2017 / Published online: 10 October 2017
© Springer Science+Business Media B.V. 2017

Abstract It has recently been claimed that Sen’s capabilities approach can be used to advise the formation of public policy related to human wellbeing. It has also been proposed that measures of subjective wellbeing are inadequate for this purpose. These ideas are examined in relation to capabilities, using the same reference material as the proposing author. The theory of subjective wellbeing homeostasis is used as the alternative framework by which to understand the potential of subjective wellbeing for policy advice. This examination reveals an almost complete lack of evidence that capability measurement could fulfill the suggested role. While subjective wellbeing has more potential for this purpose, caveats to its employment for policy advice are also evident.

Keywords Capabilities · Subjective wellbeing · Public policy · Measurement · Homeostasis · Theory

Annie Austin has made an important contribution to social indicators research by questioning the kinds of information used in making public policy. She joins a long list of authors over the past few decades in doubting the wisdom of continuing to accord sovereign status to economic indicators. As she says, there is an evident need to develop planning models that represent “people-centered rather than economic-growth centered development” Austin (2016, p. 135).

Austin approaches this topic of policy advice is from a legal-ethical perspective, and considers the relative merits of two sources of information. One is the use of ‘wellbeing’ as defined within psychology. The other concerns Sen’s outstanding and original

✉ Robert A. Cummins
robert.cummins@deakin.edu.au

Kenneth C. Land
kland@soc.duke.edu

¹ School of Psychology, Deakin University, 221 Burwood Hwy, Melbourne, VIC 3125, Australia

² Department of Sociology, Duke University, Duke Box 90088, Durham, NC 27708-0088, USA

conceptualization of ‘capabilities’ (Sen 1985, 1999, 2004). At a conceptual level, capabilities has been very influential in providing relevant understanding, such as the optimal form and distribution of public resources. However, few writers have suggested the direct measurement of capabilities as a guide to public policy. This has been Austin’s contribution and we applaud her initiative in raising this issue for debate.

Her position is based on two forms of argument. The first concerns the inappropriate use of subjective wellbeing (SWB). Austin not only considers such measures to be flawed indicators upon which to build public policy, but also sees danger in their increasing acceptance in this role. Second, she champions to use of capabilities measurement as a superior source of information. This discussion will now proceed by evaluating her views on SWB.

1 Happiness Hegemony

Austin uses ‘hegemony’ in the sense described by Merriam-Webster (2016), as a preponderant, dominant influence, concerning the social, cultural, and ideological determination of public policy. In stating her hegemonic view she claims:

...indicators of subjective well-being (SWB) have come to the fore, and are increasingly seen as providing a ‘yardstick’ to guide public policy. A strong version of this position is that SWB can (and should) provide the sole basis on which to design and evaluate public policy ...and amounts to a hegemony of happiness (Austin 2016, p. 123).

In support she cites five publications, all pertaining to UK policy. Each of these will now be considered, first in Austin’s words, followed by our own perspective.

Publication #1 O’Donnell et al. (2014) adopt the ‘strong position’ because their report “contains as a technical appendix a cost–benefit policy analysis based solely on SWB data” (Austin 2016, p. 124).

Perspective After presenting their analysis, these authors conclude that there is no currently reliable way of comparing cost–benefit analyses of policies based on money units with analyses based on wellbeing units, so that it may be currently necessary to have both. They also note that the “direct measurement of wellbeing and causal models of how it is determined ... is still in its infancy” (O’Donnell et al. 2014, p. 79).

Publication #2 Austin links a ‘life satisfaction seminar’ given in 2002 by Layard at HM Treasury (citing Scott, 2012) to a contemporaneous report from the Prime Minister’s Strategy Unit (Donovan and Halpern 2002). Austin claims this report “emphasised the usefulness of SWB in terms of its simplicity and comprehensibility for ranking policy options” (Austin 2016, p. 127).

Perspective The implication is drawn that Donovan and Halpern (2002) had been unduly influenced by Layard. It is true that Donovan and Halpern cite Layard’s seminar as “2002 mimeo London School of Economics”. However, the authors cite over 100 other published sources as the basis for their opinions, and devote a section to describing the problems of employing subjective measures for policy advice. Under the title ‘What are the limitations of life satisfaction as a policy tool and goal?’ (p. 39) they provide five such limitations and conclude “These concerns and limitations should warn us off an inflexible and naïve over-application of life satisfaction as a guide to policy” (p. 40).

Publication #3 Austin cites the Office for National Statistics (2011, p. 4) as “Expected gains in SWB could be computed for different policy areas and this information could be used to decide which forms of spending will lead to the largest increases in SWB”.

Perspective This publication is an authoritative and well-balanced discussion of SWB in the policy arena. Under the heading ‘Wellbeing measures for public policy’ (p. 4) the authors set out three conditions which must be met prior to the rational consideration of SWB for this purpose. These are theoretical rigor, policy relevance, and empirically robustness. The above quotation is set in the context of considering possible uses for SWB if the three conditions are satisfied. The authors then discuss a multitude of unresolved issues concerning the use of SWB for policy advice.

Publication #4 Austin cites the Department for Environment, Food and Rural Affairs (2005, p. 23) as advocating the ‘strong position’. This is attributed to their statement “Many of our existing indicators cover issues that affect people’s wellbeing, for example employment, community participation, education, housing conditions, health, income, and the environment more generally.” She interprets this extract as revealing “the assumption that ‘wellbeing’ is equated with a subjective state, and implies that the maximisation of subjective satisfaction is the assumed policy priority” (Austin 2016, p. 128).

Perspective The referenced publication is a discussion document, which presents a multiplicity of meanings to wellbeing, including ‘ecosystem wellbeing’ (p. 99). In fact, the authors appear most uncertain what they intend ‘wellbeing’ to mean. This is evident when they define their measures in Sect. 4, where they state that the definition of ‘Wellbeing’ is “to be developed” (p. 146).

Publication #5 Lepper and McAndrew (2008) are quoted as reporting that “econometric analysis of SWB data can provide evidence for policy-makers, to assess how material welfare affects well-being” and that “this again demonstrates the use of ‘wellbeing’ as shorthand for subjective satisfaction, and shows the tacit assumption that SWB is the ultimate goal” (Austin 2016, p. 128).

Reference check This is a misquotation which is actually “The expanding research programme in the *economics of well-being can provide evidence* for policy-makers, to assess how material welfare affects well-being” (p. 4). There is no mention in this quotation of SWB and the authors do not use the word ‘econometric’ in their document.

1.1 Conclusion

It appears that Austin’s claim, that these five publications signal hegemonic intent, cannot be sustained in the light of an examination of each source. Each of the cited documents appear to have been produced as guides to facilitate discussion, presenting the case both for and against the use of SWB as a guide to policy. The sentences selected by Austin to make her case do not represent the tenor of the documents.

In more general terms, no credible authority would claim that SWB, used alone, is capable of life-quality representation. For over 50 years it has been understood that objective and subjective measures form two separate dimensions to life quality (Andrews and Withey 1976). Then, since both are important measures in their own right, each dimension needs to be measured to give a balanced overview of life quality. Indeed, this

view is stated by the authors of the ONS scale, cited by Austin as the exemplar measure of SWB (Tinkler and Hicks 2011, p. 3).

This discussion will now move to a consideration of whether measures of capabilities could be used as reliable and valid indicators for public policy.

2 The Capabilities Approach

Austin concludes her abstract with “The capabilities approach, which takes a pluralist perspective on well-being and prioritises freedom and opportunity, offers a richer and more useful foundation for policy” (p. 123).

There is no doubt that the construct of capabilities allows a quantum-jump in understanding the relationship between resources and how people can effectively use them (‘functionings’ in Sen’s terms). An understanding of capabilities demands the realization that objective resources are not ends in themselves. They simply provide a partial view of what enables a person to be or do (Sen 1999). Moreover, even accepting Rawls’ (1972) view that some physical resources are universally required, people differ in so many of their requirements to achieve functionings, that any list of the physical resources available to an individual can only provide a very incomplete perspective onto their wellbeing.

Nevertheless, at least in theory, if capabilities can be reliably and validly measured, then they could play a crucial role in policy development. So this measurement issue deserves further examination.

2.1 Measuring Capabilities

Measuring the construct of capabilities is most difficult. The task is to measure what people are potentially able to be and do, not just what they are actually doing, and the extent to which they are empowered to make decisions about important aspects of their lives. As noted by Burchardt and Vizard (2014), the challenges include the specification and justification of a measurement instrument that is able to capture the complex concept of ‘capability’, and produce data which reflect the breadth and depth of the theoretical framework. Perhaps not surprisingly, some authors have concluded that the measurement task is so informationally demanding that it is impossible to operationalise (e.g., Sugden 1993, 2003).

Despite these difficulties, Austin claims “There have in fact been many examples of the empirical operationalisation of the capabilities approach using both qualitative and quantitative methods. A notable example includes the Capabilities Measurement Project (<http://www.open.ac.uk/ikd/research/human-capabilities/capabilities-measurement-project>) which has demonstrated how the concept of capability can be operationalised using existing and new data sources and advanced statistical techniques (Anand et al. 2009a, b). This and other examples of empirical work (e.g. Burchardt and Vizard 2014; Krishnakumar and Ballon 2008) stand in direct contradiction to the claim of empirical unsoundness” (p. 134).

The cited website contains no direct advice on how to measure the capabilities construct. Moreover, none of the cited publications use statistics, such as factor analysis, to engage in reliable item reduction and scale creation. Instead, the authors regress lists of items, which seem to have some degree of face-validity with capabilities, to predict SWB. The result is the identification of predictive items, but with no information as to the extent

these items are redundant through shared variance, and no information on whether the list can be organized into reliable factors.

In addition to these reports listed above, several other authors have also attempted this task of measuring capabilities. These include Nussbaum (2000), whose list comprises a *mélange* of variables, and Burchardt and Vizard (2007), whose list of 10 ‘core’ capabilities is named the Equality Measurement Framework. The items in this latter list are claimed by Austin (2016) to be universal and, moreover, that “in the absence of any of them” (p. 133), people cannot lead flourishing human lives. However, even the authors of the list do not make this claim; rather the opposite. Burchardt and Vizard (2007) recommend that their ‘core’ capabilities “be examined jointly, not just in isolation” (p. 22), that there should be “periodic revision of the list” (p. 35), and that “analysis of outcomes in the ten domains should be supplemented with an assessment of the degree of choice and control” (p. 23).

The only evidence of validity in the listed publications seems to be the use of cross-sectional data to show that some items correlate significantly with measures of SWB (e.g. Anand et al. 2009a). However, there is no indication that such correlations are universal, no item groupings have been shown to form reliable and valid scales, in fact none of the requirements that define a social indicator (see later) have been established.

It also seems to be questionably useful to study the correlations of specific capabilities with SWB. No matter that a capability item reliably correlated with SWB, this leaves open the issue of why the capability should be used as the measure of outcome, rather than SWB.

In summary, it is true that some authors (e.g. Anand et al. 2009a) hold it is theoretically possible to develop a list of desirable capabilities indicative of a good life, reasonably comprehensive at a high level of abstraction. However, even if this is so, it appears very far from having been achieved at an operational level.

2.2 Capabilities and Policy

Sen (2004) directly addresses why he is disinclined to provide a fixed list of capabilities to go with his general capability approach. He argues that capability assessment needs to be contextualized. Thus, no single list of items will fit all contexts and so “It would be a mistake to build a mausoleum for a ‘fixed and final’ list of capabilities usable for every purpose ...” (p. 77). Many other authors agree (Rawls 1999; Srinivasan 1994).

Despite this, Austin insists that the capabilities approach has already been used in the context of policy. As evidence she states “The capabilities approach has also been used extensively in practical policy settings (for a review see Ibrahim and Tiwari 2014)” (Austin 2016, p. 134)

The volume by Ibrahim and Tiwari (2014) comprises chapters by various authors describing their experience in applying the capabilities approach to the design of intervention programs, in various applied settings involving disadvantaged people. While many useful designs are described and have been implemented, in relation to the issue of policy the editors acknowledge “Unfortunately, the aforementioned universal, normative and agency-oriented nature of the capabilities approach does not render it attractive for policy-makers due to the vagueness of the capability concept” (p. 7).

Austin also states that the Equalities Measurement Framework (Burchardt and Vizard 2007) “uses the CA (capabilities approach) to conceptualise, measure and evaluate well-being. It has used a list of ‘central and valuable capabilities’ to provide a framework for agreeing priorities, setting targets, and evaluating national progress towards equality

(Equalities and Human Rights Commission 2007)” (Austin 2016, p. 134). The limitations of the Equalities Measurement Framework have already been outlined.

Finally, she cites O’Neill (2008, p. 177) “In assessing the distribution of well-being, objective characterisations of different capabilities to achieve functionings may be a better guide than self-reported assessments”. However, O’Neill gives no indication how this might be empirically achieved.

2.3 Conclusion

The evidence cited by Austin in support of using capabilities as a basis for public policy seems very fragile. The potential of SWB to fill this role will now be examined.

3 Subjective Wellbeing

Following a common path for reviewers concerned with subjective wellbeing (SWB), Austin’s perspective is strongly influenced by the views of ancient Greeks. Their continued influence is most evident in the distinction between ‘Hedonic’ and ‘Eudemonic’ happiness, and many lucid reviews of this difference are available (e.g. Ryan and Deci 2001). In this philosophical scheme, hedonic is premised on pleasure and positive feelings, while eudemonic is premised on cultivating virtues, skills, and positive functioning (Keyes and Annas 2009). It is common within the positive psychology literature to find authors equating hedonic happiness with SWB (e.g., Joshanloo 2013), and Austin follows that lead.

In fact, the continued use of this archaic terminology is not helpful to the contemporary understanding of SWB, which has advanced to an extent unrecognizable to the Greeks. This modern view is derived from within psychological science and it is against this new reality that the potential use of SWB, as a social indicator to advance public policy, will be considered.

3.1 Making the Case for Policy Relevance

Two sets of criteria are relevant in determining whether a variable is suitable to advise public policy. The first are the criteria for policy. These have been supplied by the Office for National Statistics (2011, p. 3) who suggest the criteria of theoretical rigor, empirical robustness, and policy relevance.

The second set of criteria refer to the suitability of a variable as a social indicator. These criteria (Land 1983, 2015) specify that, for social policy relevance, social indicators must represent outcome variables against which the effectiveness of some public policy can be assessed. In this scheme, social indicator validity requires that:

- a. Members of a society agree that what the indicator measures needs improving;
- b. it is possible to decide unambiguously what ‘getting better’ means;
- c. it is meaningful to aggregate the measure with other indicators, to the level of aggregation at which the policy is defined.

Clearly, to meet such criteria, indicators must be amenable to empirical measurement. So, how do the measures of SWB shape-up against these criteria? The evidence relevant to each criterion will now be considered.

3.2 Theoretical Rigor

Defining the term ‘happiness’ is crucial for this discussion, because the term has two quite different meanings. In common parlance, happiness implies an emotion; a short-term positive feeling caused by some event. This form of happiness is transitory and, in the context of social indicators, emotional happiness is just noise in the measurement, varying from moment to moment.

The second kind of happiness is not a reaction to anything. It is a genetically driven, low-intensity, positive mood. Its level does not change, being determined at a ‘set-point’ level for each person (Capic et al. 2017; Cummins et al. 2014a). These set-points are normally distributed within general population samples, between 70 and 90 points on a standard 0–100 point scale. This distribution accounts, in part, for our generally positive mood.

The mood component of SWB, as measured, comprises three affects. Two of these moods, content and happy, lie very close to one another on the affective circumplex (Russell 1980; Yik et al. 2011). The third mood, ‘alert’, represents the activation dimension of the circumplex model. These three affects combine to form Homeostatically Protected Mood (HPMood).

Not only does HPMood form a constant, positive background to our thoughts (Cummins 2010), it is also the major component of SWB (Blone et al. 2011; Davern et al. 2007; Tomin and Cummins 2011). HPMood accounts for around 46% of the variance in SWB as measured through either Global Life Satisfaction or the Personal Wellbeing Index (Cummins et al. 2017). Both of these scales are described below.

This high content of HPMood causes SWB to have some very interesting properties. These include a normally high level of stability and a non-linear relationship with objective variables due to homeostatic control, as will be explained.

3.3 Empirical Robustness

Statistical robustness comes in two basic forms; reliability and validity. Perhaps the most extraordinary demonstration of reliability is SWB stability. Over the past 15 years we have measured the SWB of the Australian population PWI through 30 surveys, each of 2000 people, nationally representative. When the results are standardized to lie on a 0–100 point scale, and survey mean scores are used as data, the full range of values lies between 73.8 and 76.7 points. In other words, the mean SWB level of a random survey of people in Australia can be predicted, with 95% certainty, to lie within a 2.9 percentage point range. There is no precedent in the literature for such extraordinary stability in self-report data.

The reason for this stability is explained by the theory of SWB homeostasis. This proposes that, in a manner analogous to the homeostatic maintenance of blood calcium or body temperature, the level of SWB is actively controlled and maintained by a set of psychological devices, described in detail elsewhere (Cummins 2013, 2014, 2016a). Essentially, a system has evolved to protect and maintain each set-point level of HPMood which, due to its dominance within SWB, also causes stability in that variable.

At the level of individuals, data show greater variation and, again, the degree of this variation can be traced to set-points for HPMood. Each set-point has a normal range of less than 20 points, or 10 points on either side of each set-point. The homeostatic system has the job of maintaining HPMood, and therefore SWB, within this range.

Validity is demonstrated in various ways. First, SWB measured by different scales, such as General Life Satisfaction (GLS: 'How satisfied are you with your life as a whole?' (Andrews and Withey 1976), the Personal Wellbeing Index (PWI: International Wellbeing Group 2013), and the satisfaction with life scale (Diener et al. 1985) all inter-correlate at about 0.7–0.8 (Renn et al. 2009). Second, SWB shows a predictable asymptotic relationship with resources, such as personal income. Third, The loss of normal levels of SWB make people highly prone to depression (Cummins 2010). It can be concluded that SWB is both valid and empirically robust.

3.4 Policy Relevance

The two most fundamental requirements for policy relevance is that the measured variable changes, and that change is policy relevant. SWB accommodates both of these requirements.

While the level of each set-point is determined genetically, responses to SWB questions show considerable systematic variation. This is caused by intrusive emotions becoming incorporated into each SWB response (Cummins et al. 2014). To assist understanding, consider the analogy with the set-point for core body temperature (37 °C). This variable is normally held at a constant level, however, prolonged exposure to a sufficiently persistent hot or cold thermal challenge will cause core body temperature to rise or fall. This does not represent a change in temperature set-point. It is a defeat of homeostasis and, once the source of thermal challenge is removed, body temperature will revert to its set-point.

Similarly, in response to the experience of a strong emotion, each person's set-point remains unaltered while the abnormal level of SWB reflects attention to the dominating emotional state. Homeostatic resources will then be directed to the restoration of SWB to its normal level. However, if the resources are insufficient to achieve such restoration, then SWB remains below its normal range and the person is at high risk of depression (Cummins 2010). Thus, changes in SWB levels are highly policy relevant.

The second criterion for policy relevance is that change in SWB levels are meaningful for this purpose. Such interpretation requires a knowledge of the normal range of values. In Australia, two such normal ranges are well established using data from the multiple surveys of the Australian Unity Wellbeing Index (Cummins et al. 2013b). One range concerns the normal range of scores from individuals, while the other concerns group mean scores.

The policy relevance of these measures is that, if people are living under conditions that are sufficiently adverse to chronically defeat homeostasis, then their SWB will be maintained at levels below the normal range. Such individuals are at heightened risk of depression and require additional resources to recover homeostatic control.

While it is true that the incorporation of this understanding at the level of public policy has been slow, there are signs of increasing acceptance for this purpose. The influential Stiglitz commission (Stiglitz et al. 2010) reiterated that GDP was not sufficient as an indicator of national progress, and proposed SWB as a complementary national indicator. Additionally, both the WHO (2012) and the OECD (2013) have recommended the measurement of SWB in national surveys.

In summary, the policy implications of SWB are clear. If it is considered desirable for all citizens to experience normal levels of subjective life quality, then SWB is an excellent national indicator of the degree to which this is being achieved.

3.5 Members of Society Agree that SWB Needs Improving

When it is understood that positive levels of SWB are normal, and that a chronic loss of this positivity signals an enhanced risk of depression, the implication for policy is evident. From a public health perspective, the SWB of people in homeostatic defeat needs improving through the provision of additional resources. However, while this seems an obvious conclusion, there is an important caveat that is vital for the effective allocation of resources.

A crucial insight to ensure the most effective allocation of resources is that, when levels of SWB are normal, there is no point in attempting to increase SWB. Any such efforts will be defeated by the homeostatic imperative to return abnormally high levels of SWB back to set-point. This understanding has profound implications for policies concerned with resource allocation.

Consider, for example, the recent study by Tonym et al. (2015). This involved a counselling intervention delivered to 4243 adolescents deemed ‘at-risk’ of educational or social failure. The intervention increased the PWI of the adolescents with a baseline SWB < 50 points (homeostatic defeat) by 23.75 points, whereas the increase for adolescents with a baseline > 50 points was barely significant. This result reinforces two ideas. First, that providing additional appropriate resources to people in homeostatic failure will assist homeostasis to lift their SWB towards their normal range. The second is the implication for policy; that public resources will be most effective when distributed to people who are in homeostatic defeat.

3.6 The Meaning of Increased Population SWB is Unambiguous

Many authors have voiced their concern that changes in the level of SWB are ambiguous in their interpretation because people simply adapt to whatever life circumstances they encounter. Thus, they conclude, SWB levels are invalid for policy purposes. These concerns have taken various forms, such as adapting ‘preferences to the choices available to them’ (Burchardt and Vizard 2007), ‘the paradox of happiness in hardship’ (Veenhoven 2005), ‘Easterlin’s paradox’ (Easterlin 1974), etc. Understanding the processes of adaptation, however, gives a different perspective.

The process of adaptation is best understood through Adaptation Level Theory (Helson 1964). The general principle is that, under normal living circumstances, people naturally adapt to a point of affective neutrality. This is their adaptation level (AL), and it has two important characteristics. First, it is the benchmark against which people judge the strength of current positive or negative experience. Second, AL can be raised or lowered by past experience (Eiser and Stroebe 1972), such that AL moderates the impact of current experience.

Due to the operation of this dynamic system, an extremely positive event initially causes intensely positive feelings because the experience is so much more positive than AL. However, it also causes AL to shift upward, which then has dampening consequences for future levels of pleasure. Because momentary pleasurable experiences are referenced to AL, and because AL has become more positive, such experiences are felt as less intense. Importantly, however, the same process works in reverse to assist recovery from misfortune. If someone suffers a sudden loss of positive feelings, then that person’s reduced level of pleasure causes AL to drop. This has the effect of causing the person to gain pleasure

from minor sources of positive input that would not previously have been noticed (Brickman and Campbell 1971).

This process of adaptation is most evident in chronic conditions and forms part of the homeostatic processes of recovery after some major event. Crucial to understanding the implications for SWB, however, is that the processes of adaptation and homeostatic recovery are not infinitely powerful. They operate effectively when the source of challenge is mild and the resources to effect recovery are available. When the challenge is strong and the resources are weak, AL may well lack the power to be effective. Under these conditions homeostasis fails, and levels of SWB remains pathologically low. Thus, adaptation is certainly not inevitable.

There are many reported examples of chronic adaptation failure in the literature, due to such factors as loss of paid employment, broken marriages, or social isolation. A dramatic example is provided by informal carers, that is, people caring for a disabled family member at home. Even though social security benefits provide support to such people in Australia, this resource is insufficient to counter the stress of long-term and unrelenting responsibilities. A study of 4000 carers showed a SWB mean of 58 points, which is way below the normal range and associated with substantial levels of homeostatic defeat, distress and depression (Hammond et al. 2014).

In summary, adaptation has limited power to counter negative challenges to homeostatic control. When adaptation fails, SWB falls to below-normal levels, and this is an excellent indicator that additional resources are required.

3.7 It is Meaningful to Aggregate SWB with Other Indicators, to the Level of Aggregation at Which the Policy is Defined

The Personal Wellbeing Index (International Wellbeing Group 2016) has a unique construction. Its seven domains, together, are intended to represent the first level deconstruction of General Life Satisfaction ('satisfaction with life as a whole'), as determined through multiple regression. Within Australia, three of these domains correspond to the three objective social indicators that constitute the major defensive resources of homeostasis (Cummins et al. 2013, Appendix Part B, Table A2.17.1). Together, they are referred to as the 'Golden Triangle of Happiness' and comprise money, intimate relationships, and achieving in life through a purposeful activity.

The reason these three resources are so powerful is that each has a dual action. Each resource not only defends against homeostatic failure but also assists in the maintenance of normal positive feelings. Thus, active engagement with each these three resources is intrinsically rewarding. As examples of this dual role:

- Money can be used to avoid the negative experience of house-cleaning, by paying someone else to do the job. The time saved can then be used for a personally satisfying activity.
- Relationships, when positive and intimate, allow much of daily life to occur within a secure social environment. This not only reduces the probability of unpleasant social encounters but also increases the probability of positive social interactions.
- Achieving something personally important each day engages positive life routines in a secure context and provides a positive sense of purpose.

Thus, the adequate provision of these three resources assists homeostatic defense by both reducing the probability of negative events, and by maintaining positive feelings

through engagement with secure and rewarding activities. This information can be used for policy advice relating to the most effective distribution of resources as follows.

First, the overall level of the PWI allows a determination of whether a defined group of people are below the normal range (Table A20: Normative ranges calculated from aggregated individual data, Cummins et al. 2013b). If they are below, then the disaggregation of the PWI into its domains can inform which areas of life are most affected. Resources can then be allocated to those areas, with the understanding that the most crucial domains for overall SWB maintenance are the aggregate of money, relationships, and achieving.

3.8 More is Not Always Better

When Adam Smith (1776) published *The Wealth of Nations* about 250 years ago, he created the origins of modern economics. Smith, a philosopher, made all sorts of assumptions upon which to base his arguments. One was that, because happiness cannot be measured, income is its proxy. The more money individuals or nations have, the happier they are.

We now know this assumption is false and a good summary can be found in Gittins (2010). Extensive studies over the past half century have shown unequivocally that mood happiness and personal income are related in the form of decreasing marginal utility. This relationship is also predicted by homeostasis theory. Once the homeostatic processes are saturated with the resource of money, increased wealth will produce no further increase in SWB. This understanding, combined with data on pollution, leads to an alarming conclusion for public policy.

Lenzen and Cummins (2013) combined national measures of SWB with the both the level of household income and the amount of pollution they produced. The results confirm no further reliable increase in SWB beyond about \$100,000 per annum. Disturbingly, however, the relationship between income and household pollution remained linear. Thus, beyond \$100,000, representing almost a quarter of households in Australia, there is no benefit to SWB but an increasing production of pollution. Clearly, national economic policies face a conundrum. The mantra that GDP is proxy for happiness is not only false but also encouraging rich nations to create run-away levels of global pollution with consequential global warming and environmental destruction.

3.9 Summary

Reliable and valid measures of SWB are available and the results can be interpreted in a manner useful to the formulation of public policy. This is most evidently useful in determining the most efficient distribution of resources to raise population levels of wellbeing.

4 The Case Against Using SWB for Policy

As part of her introduction (pp. 124–125), Austin states “SWB in relation to guiding public policy has been criticised from a variety of perspectives (Burchardt 2006; O’Neill 2008; Tomlinson and Kelly 2013).” However, she provides no further description of these publications or the basis for their criticism. These three publications will now be examined.

Burchardt (2006) discusses two main concerns. The first is that “some policies that make or keep people happy are deeply unattractive for other reasons” (p. 156). As evidence he cites the Nozick machine, which is discussed in the next section, and that “If the objective is to maximise the amount of time people spend in a positive mood, widespread distribution of antidepressants (or Huxley’s 1932 ‘soma’) should become a policy priority” (p. 157). Such suggestions are fanciful and unworthy of serious debate. His second concern is the problem of “whose happiness we should aim to promote” (p. 157). This is discussed as though making some of the population happier is inextricably linked to making some others unhappier. An understanding of homeostasis, and that resource sufficiency is the key to achieving normal homeostatic control, renders this concern untenable.

O’Neill (2008): This author combines a basically philosophical account of ‘happiness’ with occasional flavorings from economics and psychology. The critique from a psychological perspective concentrates on adaptation and the ‘hedonic treadmill’. Against such argument is the explanation of temporal change in SWB offered by homeostasis theory, as has been presented by (Cummins 2016b).

Tomlinson and Kelly (2013): “Happiness data per se are of doubtful value in the construction of national wellbeing Indexes” (p. 151). Their substantive grounds are two-fold. One is adaptation, addressed previously, and the other is stated as “Subjective assessments of happiness will be influenced by normative expectations and structures of opportunities and outcomes”. It is not clear why they believe these particular characteristics negatively impact data usefulness. The authors neither elaborate nor provide references.

In summary, not one of these objections form a substantive reason to doubt the usefulness of SWB for policy. However, Austin also lists four additional lines of evidence “that call into question the usefulness of SWB as a policy ‘yardstick” (p. 129). These are as follows.

4.1 Adaptation, Stability and Genetics

Austin describes these issues as her “most serious objection to subjective state accounts of well-being” (p. 130). In support she cites Lykken and Tellegen (1996) as evidence that SWB is influenced by genetics, and Headey and Wearing (1989) as evidence that SWB inevitably returns to set point, and that hedonic adaptation causes a self-defeating ‘treadmill’ effect. These matters have been dealt with in the prior description of homeostasis.

As additional evidence for her objection Austin cites: (a) Biswas-Diener and Diener (2001) as showing that “slum-dwellers in Calcutta ... had the same level of overall life satisfaction as a middle-class comparison group”; and (b) Office for National Statistics (2012) as showing that “SWB in the UK remained stable during the economic crisis that began in 2007” (Austin 2016, p. 131). Both of these claims will now be considered.

- a. The only standardised measure of SWB used by Biswas-Diener and Diener (2001) is the satisfaction with life scale (Diener et al. 1985). The authors measured four groups and their scores, converted to the standard 0–100 point scale are: University students (71.5 points), slum dwellers (61.5); sex workers (40.5), and pavement dwellers (30.0). Using data from the SWLS and data from the USA, the comparison group of students are at the same level as a large group of university students in the USA (Allan and Duffy 2014). The slum dwellers are at about the same level as people with cerebral palsy (60.0 points) (Gannotti et al. 2011) or multiple sclerosis (56.0 points)

- (Learmonth et al. 2014), while the other two groups are below any known USA comparison group. Austin's claim of comparability is without foundation.
- b. The ONS results (Office for National Statistics 2012, p. 10) are an example of the Ecological Fallacy, wherein GDP is compared with SWB (life satisfaction). Since GDP is measured at the national level and SWB is measured at the level of individuals, they cannot validly be directly compared since they represent different units of analysis (Blalock 1964; Brenner 1975; Piantadosi et al. 1988). Consequently, responses to general questions of SWB are generally poorly related to national statistics, including measures of economic wellbeing (Land et al. 2017).

In summary, none of these sources are relevant to any case against using SWB for policy.

4.2 Instrumentalism

Austin's principle objection here is that "if subjective pleasure was really of ultimate value, people would not hesitate to plug into Nozick's Experience Machine (Nozick 1974)".

The Experience Machine is a thought experiment in which, being 'plugged-in' to this hypothetical device would "give you any experience you desired" (Nozick 1974, p. 42) or, in Austin's interpretation, to experience "a lifetime of subjective pleasure without leaving the laboratory or even being aware that they are in it" (p. 129).

Noziak mounts a philosophical argument that, if given the choice between either this experience or normal life experience, people would choose the real life option. His reasons are that people: (a) want to actually do things; (b) want to be a certain sort of person; (c) want to experience beyond man-made reality. No doubt such matters form a fascinating topic for philosophical discussion, but Austin goes further in claiming that Weijers (2013) provides "empirical evidence to support this intuition" thereby demonstrating that "subjective pleasure is not the sole or even the most important value" (p. 129).

In fact, Weijers (2013) shows quite the opposite. In a thoughtful review of several studies concerning Noziak's conclusions, he shows that people's rejection of the machine is most likely caused by cognitive biases such as the preference for status quo. Indeed, Weijers concludes "Nozick's experience machine thought experiment ... must no longer be given as evidence that real experiences are more important to us than pleasurable ones....the experience machine objection cannot rationally be used to show ... that hedonism is false" (p. 12).

4.3 Individualism

Austin claims that "The approach to individual and national well-being that involves measuring and aggregating individual psychological states has also been criticised for being based on highly normative ideas of individualism: rather than an individual phenomenon ..." (p. 129).

The preceding description of SWB homeostasis indicates that, while it is true that SWB data can be aggregated to provide group-level statistics, the basic unit of measurement is the individual. This is evident in both the demonstration of set-points and the creation of normative ranges for SWB bases on the data from individuals. Thus, judgements of wellbeing are, indeed, individual phenomena.

4.4 The Scope Fallacy

Austin (p. 130) defines the ‘scope fallacy’ by referring to O’Neill (2006), which publication is a review of Layard’s book ‘Happiness: Lessons for a New Science’. In this book review, O’Neill points out that when questions ask for a subjective assessment of happiness, “it does not follow that they thereby ask for an assessment of subjective welfare” (p. 449). Hence the scope fallacy is to confuse ‘an assessment of subjective welfare’ and ‘a subjective assessment of welfare’.

The answer to this philosophical issue can be found in the validity studies conducted on measures of SWB. Essentially, such measures positively correlate with all other self-report assessments of personal wellbeing, such as self-esteem, optimism, perceived control, etc. (e.g. Lai and Cummins 2013) and negatively correlate with depression (Cummins 2010). It seems clear that SWB is, indeed, an assessment of subjective welfare.

5 Conclusions

Austin has provided a spirited critique of subjective wellbeing (SWB) as a guide to public policy. She is to be congratulated for stimulating such debate. However, when SWB is understood through the lens of homeostasis theory, it is apparent that SWB has considerable usefulness for policy advice, provided that the measures are used appropriately. Her additional claim, that capabilities measurement would form a superior basis for public policy, has been found wanting. It is concluded that, contrary to Austin’s arguments, subjective wellbeing, rather than capabilities measurement, forms a superior basis to inform public policy.

Acknowledgement This work was supported by the National Research Foundation of Korea Grant funded by the Korean Government (NRF-2013S1A3A2054622).

References

- Allan, B. A., & Duffy, R. D. (2014). Examining moderators of signature strengths use and well-being: Calling and signature strengths level. *Journal of Happiness Studies*, 15(2), 323–337.
- Anand, P., Hunter, G., Carter, I., Dowding, K., Guala, F., & Van Hees, M. (2009a). The development of capability indicators. *Journal of Human Development and Capabilities*, 10(1), 125–152.
- Anand, P., Santos, C., & Smith, R. (2009b). The measurement of capabilities. In K. Basu & R. Kanbur (Eds.), *Festschrift for Prof Amartya Sen* (pp. 283–310). Oxford: Oxford University Press.
- Andrews, F. M., & Withey, S. B. (1976). *Social indicators of well-being: American’s perceptions of life quality*. New York: Plenum Press.
- Austin, A. (2016). On well-being and public policy: Are we capable of questioning the hegemony of happiness? *Social Indicators Research*, 127(1), 123–138.
- Biswas-Diener, R., & Diener, E. (2001). Making the best of a bad situation: Satisfaction in the slums of Calcutta. *Social Indicators Research*, 55, 329–352.
- Blalock, H. M., Jr. (1964). *Causal inferences in nonexperimental research*. Chapel Hill, NC: University of North Carolina Press.
- Blore, J. D., Stokes, M. A., Mellor, D., Firth, L., & Cummins, R. A. (2011). Comparing multiple discrepancies theory to affective models of subjective wellbeing. *Social Indicators Research*, 100(1), 1–16. doi:10.1007/s11205-010-9599-2.
- Brenner, B. (1975). Quality of affect and self-evaluated happiness. *Social Indicators Research*, 2(3), 315–331.
- Brickman, P., & Campbell, D. T. (1971). Hedonic relativism and planning the good society. In M. H. Appley (Ed.), *Adaptation-level theory: A symposium* (pp. 287–302). New York: Academic Press.

- Burchardt, T. (2006). Happiness and social policy: Barking up the right tree in the wrong neck of the woods. In L. Bauld, T. Maltby, & K. Clarke (Eds.), *Analysis and debate in social policy* (pp. 145–164). Bristol: Policy Press.
- Burchardt, T., & Vizard, P. (2007). Definition of equality and framework for measurement: Final recommendations of the Equalities Review Steering Group on Measurement. London: LSE, Centre for the Analysis of Social Exclusion. CASE paper 120. <http://sticerd.lse.ac.uk/dps/case/cp/CASEpaper120.pdf>.
- Burchardt, T., & Vizard, P. (2014). Using the capability approach to evaluate health and care for individuals and groups in England. In S. Ibrahim & M. Tiwari (Eds.), *The capability approach: From theory to practice* (pp. 148–170). Basingstoke: Palgrave Macmillan.
- Capic, T., Li, N., & Cummins, R. A. (2017). Confirmation of subjective wellbeing set-points: Foundational for subjective social indicators. *Social Indicators Research*. doi:10.1007/s11205-017-1585-5.
- Cummins, R. A. (2010). Subjective wellbeing, homeostatically protected mood and depression: A synthesis. *Journal of Happiness Studies*, 11, 1–17. doi:10.1007/s10902-009-9167-0.
- Cummins, R. A. (2013). Subjective wellbeing homeostasis. In D. S. Dunn (Ed.), *Oxford bibliographies Online*. <http://www.oxfordbibliographies.com/view/document/obo-9780199828340/obo-9780199828340-0167.xml>.
- Cummins, R. A. (2014). Can happiness change? Theories and evidence. In K. M. Sheldon & R. E. Lucas (Eds.), *Stability of happiness: Theories and evidence on whether happiness can change* (pp. 75–97). Amsterdam: Elsevier.
- Cummins, R. A. (2016a). The theory of subjective wellbeing homeostasis: A contribution to understanding life quality. In F. Maggino (Ed.), *A life devoted to quality of life—festschrift in Honor of Alex C Michalos* (Vol. 60, pp. 61–79). Berlin: Springer.
- Cummins, R. A. (2016b). Happiness is the right metric to understand the functioning of society. *Society*, 53(3), 273–277. doi:10.1007/s12115-016-0011-y.
- Cummins, R. A., Li, L., Wooden, M., & Stokes, M. (2014). A demonstration of set-points for subjective wellbeing. *Journal of Happiness Studies*, 15, 183–206. doi:10.1007/s10902-013-9444-9.
- Cummins, R. A., Woerner, J., Weinberg, M., Collard, J., Hartley-Clark, L., & Horfiniak, K. (2013). Australian Unity Wellbeing Index: -Report 30.0—The wellbeing of Australians: Social media, personal achievement, and work. Melbourne: Australian Centre on Quality of Life, School of Psychology, Deakin University. <http://www.acqol.com.au/reports/survey-reports/survey-030-report-part-b.pdf>.
- Cummins, R. A., et al. (2017). Why self-report variables inter-correlate: The role of Homeostatically Protected Mood. *Journal of Wellbeing Assessment* (submitted).
- Davern, M., Cummins, R. A., & Stokes, M. (2007). Subjective wellbeing as an affective/cognitive construct. *Journal of Happiness Studies*, 8(4), 429–449. doi:10.1007/s10902-007-9066-1.
- DEFRA. (2005). *Securing the future: delivering UK sustainable development strategy*. London: Department for Environment, food and Rural Affairs.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71–75.
- Donovan, N., & Halpern, D. (2002). *Life satisfaction: The state of knowledge and implications for Government*. London: Prime Minister's Strategy Unit.
- Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In P. David & M. Reder (Eds.), *Nations and households in economic growth* (pp. 89–125). New York: Academic Press.
- Eiser, J. R., & Stroebe, W. (1972). *Categorization and social judgement*. London: Academic Press.
- Equalities and Human Rights Commission. (2007). *Fairness and freedom-The final report of the equalities review*. London: Author.
- Gannotti, M. E., Minter, C. L., Chambers, H. G., Smith, P. A., & Tylkowski, C. (2011). Self-concept of adults with cerebral palsy. *Disability and Rehabilitation*, 33(10), 855–861.
- Gittins, R. (2010). *The happy economist: Happiness for the hard-headed*. Melbourne: Allen & Unwin.
- Hammond, T., Weinberg, M. K., & Cummins, R. A. (2014). The dyadic interaction of relationships and disability type on informal carer subjective well-being. *Quality of Life Research*, 23(5), 1535–1542.
- Headey, B., & Wearing, A. (1989). Personality, life events, and subjective well-being: Toward a dynamic equilibrium model. *Journal of Personality and Social Psychology*, 57, 731–739. doi:10.1037/0022-3514.57.4.731.
- Helson, H. (1964). *Adaptation-level theory: An experimental and systematic approach to behavior*. New York: Harper and Row.
- Huxley, A. (1932). *Brave new world*. London: Chatto and Windus.
- Ibrahim, S., & Tiwari, M. (2014). *The capability approach: From theory to practice*. London: Palgrave Macmillan.

- International Wellbeing Group. (2013). Personal wellbeing index manual (Vol. 5). Melbourne: Deakin University. <http://www.acqol.com.au/iwb/index.php>.
- International Wellbeing Group. (2016). <http://www.acqol.com.au/iwb/wellbeing-index/pwi-a-english.pdf>.
- Joshanloo, M. (2013). A comparison of Western and Islamic conceptions of happiness. *Journal of Happiness Studies*, 14(6), 1857–1874.
- Keyes, C. L. M., & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *Journal of Positive Psychology*, 4(3), 197–201.
- Krishnakumar, J., & Ballon, P. (2008). Estimating basic capabilities: A structural equation model applied to Bolivia. *World Development*, 36(6), 992–1010.
- Lai, L. C. H., & Cummins, R. A. (2013). The contribution of job and partner satisfaction to the homeostatic defense of subjective wellbeing. *Social Indicators Research*, 111(1), 203–217. doi:10.1007/s11205-011-9991-6.
- Land, K. C. (1983). Social indicators. *Annual Review of Sociology*, 9, 1–26.
- Land, K. C. (2015). The Human Development Index. In W. Glatzer, L. Camfield, V. Møller, & M. Rojas (Eds.), *Global handbook of quality of life: Exploration of well-being of nations and continents* (pp. 133–157). Dordrecht: Springer.
- Land, K. C., Lamb, V. L., & Zang, X. (2017). Objective and subjective indices of well-being: resolving the Easterlin paradox. In G. Brule & F. Maggino (Eds.), *Metrics of subjective well-being*. New York: Springer. (in press).
- Learmonth, Y. C., Hubbard, E. A., McAuley, E., & Motl, R. W. (2014). Psychometric properties of quality of life and health-related quality of life assessments in people with multiple sclerosis. *Quality of Life Research*, 23(7), 2015–2023.
- Lenzen, M., & Cummins, R. A. (2013). Happiness versus the environment—a case study of Australian lifestyles. *Challenges*, 4, 56–74. doi:10.3390/challe4010056.
- Lepper, J., & McAndrew, S. (2008). *Developments in the economics of well-being: Treasury Economic Working Paper 4*. London: HM Treasury.
- Lykken, D. T., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7(3), 186–189.
- Merriam-Webster. (2016). Online dictionary. Retrieved from <http://www.merriam-webster.com>.
- Nozick, R. (1974). *Anarchy, state and utopia*. Malden, MA: Basic Books.
- Nussbaum, M. (2000). *Women and human development: The capabilities approach*. Cambridge: Cambridge University Press.
- O'Donnell, G., Deaton, A., Durand, M., Halpern, D., & Layard, R. (2014). *Wellbeing and policy*. London: Legatum Institute.
- OECD. (2013). *OECD Guidelines on Measuring Subjective Well-being*. Paris: OECD Publishing. doi:10.1787/9789264191655-en.
- Office for National Statistics. (2011). *Measuring subjective well-being for public policy: Recommendations on measures*. Newport: Office for National Statistics.
- Office for National Statistics. (2012). *Measuring national well-being: Life in the UK 2012*. Newport: Office for National Statistics. <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/first-annual-report-on-measuringnational-well-being/art-measuring-national-well-being-annual-report.html>.
- O'Neill, J. (2006). Happiness: Lessons for a new science. *New Political Economy*, 11(3), 447–450.
- O'Neill, J. (2008). Sustainability, well-being and consumption: The limits of hedonic approaches. In K. Soper & F. Trentmann (Eds.), *Citizenship and consumption* (pp. 172–190). London: Palgrave.
- Piantadosi, S., Byar, D. P., & Green, S. B. (1988). The ecological fallacy. *American Journal of Epidemiology*, 127(5), 893–904.
- Rawls, J. (1972). *A theory of justice*. Oxford: Oxford University Press.
- Rawls, J. (1999). *The law of peoples*. Cambridge, MA: Harvard University Press.
- Renn, D., Pfaffenberger, N., Platter, M., Mitmansgruber, H., Höfer, S., & Cummins, R. A. (2009). International Well-being Index: the Austrian version. *Social Indicators Research*, 90, 243–256.
- Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology*, 39, 1161–1178.
- Ryan, R. M., & Deci, E. L. (2001). On Happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141–166.
- Sen, A. (1985). *Commodities and capabilities*. Amsterdam: North Holland.
- Sen, A. (1999). *Development as freedom*. New York: Anchor Books.
- Sen, A. (2004). Capabilities, lists, and public reason: Continuing the conversation. *Feminist Economics*, 10(3), 77–80.

- Smith, A. (1776). An inquiry into the nature and causes of the Wealth of Nations (1 edn, Vol. 2). London: W. Strahan. <http://books.google.bg/books?id=C5dNAAAacAAJ&pg=PP7#v=onepage&q&f=true> Retrieved Sept 09 2014.
- Srinivasan, T. (1994). Human development-A new paradigm or reinvention of the wheel? *American Economic Review*, 84(2), 238–243.
- Stiglitz, J., Sen, A., & Fitoussi, J.-P. (2010). Report by the commission on the measurement of economic performance and social progress. Paris: Commission on the Measurement of Economic Performance and Social Progress http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf.
- Sugden, R. (1993). Welfare, resources, and capabilities: a review of inequality reexamined by Amartya Sen. *Journal of Economic literature*, 31, 1947–1962.
- Sugden, R. (2003). Opportunity as a space for individuality: its value and the impossibility of measuring it. *Ethics*, 113(4), 783–809.
- Tinkler, L., & Hicks, S. (2011). Measuring subjective well-being. UK: Office for National Statistics <http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/wellbeing-knowledge-bank/understanding-wellbeing/measuring-subjective-well-being.pdf>.
- Tomlinson, M., & Kelly, G. (2013). Is everybody happy? The politics and measurement of national well-being. *Policy and Politics*, 41(2), 139–157.
- Tomyn, A. J., & Cummins, R. A. (2011). Subjective wellbeing and homeostatically protected mood: Theory validation with adolescents. *Journal of Happiness Studies*, 12(5), 897–914. doi:10.1007/s10902-010-9235-5.
- Tomyn, A. J., Weinberg, M. K., & Cummins, R. A. (2015). Intervention efficacy among ‘at risk’ adolescents: A test of Subjective Wellbeing Homeostasis Theory. *Social Indicators Research*, 120(3), 883–895. doi:10.1007/s11205-014-0619-5.
- Veenhoven, R. (2005). Happiness in hardship. In L. Bruni & P. L. Porta (Eds.), *Economics and happiness* (pp. 243–266). Oxford: Oxford University Press.
- Weijers, D. (2013). Intuitive biases in judgments about thought experiments: The experience machine revisited. *Philosophical Writings*, 41(1), 17–31.
- WHO Regional Office for Europe. (2012). *Measurement of and target-setting for well-being; Second meeting of the expert group, Paris, 25–26 June 2012*. Copenhagen: WHO Regional Office for Europe.
- Yik, M., Russell, J. A., & Steiger, J. H. (2011). A 12-point circumplex structure of core affect. *Emotion*, 11(4), 705–731.