THE PHILOSOPHICAL FOUNDATIONS OF SUBJECTIVE MEASURES OF WELL-BEING

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1. INTRODUCTION

The goal of this chapter is to make explicit fundamental theoretical commitments of the effort to develop subjective measures of well-being, that is, measures based on answers to questions such as "Taking things all together, how would you say things are these days – would you say you're *very happy*, *pretty happy*, or *not too happy* these days?" (Gurin, Veroff and Feld 1960, 411, italics in original). My main thesis is that increased attention to these commitments – which can also be referred to as the philosophical foundations of the enterprise – can help us improve our understanding of both the nature, strengths and weaknesses of these measures. I will focus on two fundamental commitments, viz., the answers to the following two questions. First: what, more precisely, are subjective measures

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of well-being designed to represent? Second: what, more exactly, makes proponents of subjective measures think that they can measure it? Although it is perfectly reasonable for social and behavioral scientists to be weary of spending too much time thinking about the philosophical foundations of their enterprise, there are moments when it is eminently useful to do so. In this case, I will maintain, the philosophical foundations of the enterprise are directly relevant to the assessment of subjective measures, and attending to those foundations therefore well worth the effort.[1]

2. BACKGROUND

The concept of well-being plays a prominent role in a variety of disciplines, including philosophy – especially in ethics and in social and political philosophy – but also in economics, psychology, psychiatry, public health, gerontology, and elsewhere. Although the exact function of the concept varies across authors and disciplines, it is typically expected to play several extraordinarily important roles. Thomas Scanlon (1998) articulates these roles as follows:

> It is commonly supposed that there is a simple notion of individual well-being that plays the following three roles. First, it serves as an important basis for the decisions of a single rational individual, at least for those decisions in which he or she alone is concerned (that is to say, in which moral obligations and concerns for others can be left aside). Second, it is what a concerned benefactor, such as a friend or parent, has reason to promote. Third, it is the basis on which an individual's interests are taken into account in moral argument (Scanlon 1998, 93).[2]

Whatever the exact function of the concept of well-being in various disciplines, it certainly is often assumed to play a role in determining both what I should pursue in my own life, and what I should promote in the lives of others. Incidentally, the concept of well-being is often applied to groups and

[1] See Angner (forthcoming) for a longer discussion about some of these themes.

[2] Though Scanlon proceeds to criticize the view outlined in this passage, his characterization of the role that the concept of well-being is often supposed to play is eminently useful.

nations as well as to individuals, and supposed to play a role as a basis for the deliberations by governments regarding public policy.

The philosophical literature refers to this "simple notion" of well-being in a variety of ways. For example, in his book *Welfare, Happiness and Ethics*, L. W. Sumner (1996) writes that "a person's welfare is more or less the same as her well-being or interest or (in one of its many meanings) her good" (Sumner 1996, 1). Similarly, in the words of Andrew Moore and Roger Crisp: "At a minimum, a life of well-being is a life going well. The numerous near-equivalents to well-being include a person's good, benefit, advantage, interest, prudential value, welfare, happiness, flourishing, *eudaimonia*, and utility" (Moore and Crisp 1996, 599). Other terms that could have been added to this list include "quality of life" and "thriving" (see e.g. Nussbaum and Sen 1993, 1). Though all these terms may be used slightly differently in ordinary language (Keller 2004, 39), these quotes support Scanlon's contention that philosophers, psychologists, economists and others who try to think systematically about well-being tend to use these terms to denote one simple notion rather than a multiplicity of related ones.

The concept of well-being, as it is used here, needs to be sharply distinguished from the concept of financial well-being, or economic welfare, where the latter is understood in terms of access to economic resources (Sen 1987, 16). While it is eminently plausible to assume that some economic resources are necessary for a life of well-being, such resources are not constitutive of it. The concept of well-being, as it is employed in this chapter, also needs to be distinguished from the concept of welfare used, e.g., in Nicholas Rescher's book *Welfare* (1972):

> On closer scrutiny, it emerges that welfare relates to the *basic requisites of a man's well-being* in general, but most prominently includes those basic concerns with health and economic adequacy to which we have become accustomed by such presently current terms as the "welfare state" or a "welfare worker" (Rescher 1972, 3-4, italics in original).

The concept of welfare as it is used in this passage is broader than that of economic welfare, as used above, since it has many dimensions of which economic welfare is but one (Rescher 1972, 4-5).

Unsurprisingly, there have been many attempts to measure well-being. As a working definition of "measurement," I will adopt the following classic statement: "When measuring some attribute of a class of objects or events, we associate numbers (or other familiar mathematical entities, such as vectors) with the objects in such a way that the properties of the attribute are faithfully represented as numerical properties" (Krantz et al. 1971, 1). A measure of well-being, then, is an mapping from individuals (or groups) to numbers that is designed to represent the well-being of those individuals (or groups). In what follows, we will see that there have in fact been many efforts to develop measures of well-being so defined, and that these efforts were often motivated by a desire to help governments and other decision makers design policy so as to promote people's well-being.

Although it can be argued that efforts to measure well-being have a longer history, a prominent effort in this direction is evident in the work of A. C. Pigou, who is commonly considered the father of welfare economics. In *The Economics of Welfare* ([1920] 1960), Pigou was explicit about his desire to develop a measure of welfare that could be used in practice. In his own words, the goal was "to make more easy practical measures to promote welfare – practical measures which statesmen may build upon the work of the economist" (Pigou 1960, 10). Measures like those favored by Pigou, such as Gross National Product (GNP) – continue to be widely used as a guide to public policy (Nussbaum and Sen 1993, 2).

The social indicator movement – so identified by Otis Dudley Duncan (1969, 1) – arose as a reaction to the widespread use of economic measures of well-being (Carley 1981, 1).[3] Thus, the authors of the *Human Development Report*, published by the United Nations Development Programme (UNDP) and probably the best-known expression of the social indicator movement, wrote: "Caught up with the rise and fall of national incomes, economists often lost sight of the real end of development – people's well-being. Economic growth is merely a means – albeit an important one – for achieving this end" (UNDP 2004, 127). By contrast, the social indicator movement sought to find "a broader and more sensitive set of measures that will provide a fuller description of people's lives" (Campbell 1976, 118). These statistics were supposed to play the very same role as traditional economic accounts had come to play, including as a guide to public policy. Indeed, some proposed the development of a comprehensive index of Gross National Welfare, analogous to the GNP (Rossi and Gilmartin 1980, 27).

Though subjective measures of wellbeing have recently achieved a certain prominence, they cannot, in fact, be described as a novel invention.[4] They go back at least until the early part of the twentieth century. One of the pioneers was Goodwin Watson (1930), who lamented that it is "extraordinary almost beyond belief that so few attempts have been made to apply the techniques of psychological study to the understanding of happiness" (Watson 1930, 79). Since the late 1920s, psychologists (including Watson) developed a fascinating variety of measures of happiness and satisfaction, and using these measures, established a range of empirical results. Summarizing the early research, Warner Wilson (1967) concluded: "The happy person emerges as a young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married person with high self-

[3] Robert J. Rossi and Kevin J. Gilmartin (1980) trace the history of the social indicator movement back to William Ogburn's work at the University of Chicago during the 1920's and 30's (Ross and Gilmartin 1980, 1).

[4] This paragraph draws on Angner (manuscript a).

esteem, high job morale, modest aspirations, of either sex and of a wide range of intelligence" (Wilson 1967, 294). These measures were often presented as suitable guides for policy (Campbell, Converse, and Rodgers 1976, 8-9). More recently, some psychologists have promoted a "set of national indicators of well-being" to be used for public policy purposes (Diener and Seligman 2004, 21).

The brief review of efforts to measure well-being suggests that it is fair to think of traditional economic measures, social indicators, and subjective measures of well-being as – at least as described by some of their proponents – in some sense trying to represent the same thing.[5] This contention is supported, among other things, by the fact that proponents of measures of all three kinds have argued that their measures are suitable guides for public policy. Nevertheless, I will argue that these approaches to the measurement have radically different philosophical foundations. Moreover, I will claim that a clearer view of what these foundations are can help us better understand the various efforts to measure well-being, and to identify their relative strengths and weaknesses. Because subjective measures are frequently offered as alternatives to the more widely used economic measures, I will focus on the ways in which the foundations of subjective measures differ from those of economic measures. Hence, I will leave social indicators aside from now on.

3. ACCOUNTS OF WELL-BEING

Because the concept of well-being has been part of the Western philosophical tradition for a long time, it is not surprising that philosophers should have developed many accounts of well-being. In

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[5] Though it is possible to think of subjective measures merely as measures of something like happiness, satisfaction, or the like, and not at the same time as measures of well-being, they are often presented as both (e.g., in Diener and Seligman 2004), and this is how I will treat them here.

accordance with standard practice, I divide accounts of well-being into three main classes: *mental state accounts*, *preference-satisfaction accounts*, and *objective list accounts*.[6] This division is sometimes traced to Derek Parfit (1984), who writes:

> What would be best for someone, or would be most in this person's interests, or would make this person's life go, for him, as well as possible? Answers to this question I call *theories about self-interest*. There are three kinds of theory. On *Hedonistic Theories*, what would be best for someone is what would make his life happiest. On *Desire-Fulfilment Theories*, what would be best for someone is what, throughout his life, would best fulfil his desires. On *Objective List Theories*, certain things are good or bad for us, whether or not we want to have the good things, or to avoid the bad things (Parfit 1984, 493, italics in original).

In what follows, I will discuss the three kinds of account in order.

On the first kind of account, well-being is a "mental state" or a "state of mind." According to these accounts, people are well off to the exact degree that they are in the relevant mental state, be it happiness, satisfaction, elation, or similar. What defines these accounts is that they all see well-being "as having to enter our experience" (Griffin 1986, 13). This requirement is sometimes referred to as the *experience requirement* (Griffin 1986, 13), and accounts that satisfy it as *experiential accounts* (Scanlon 1998, 99). According to such accounts, "something contributes to well-being if, but only if, it affects the quality of one's experience" (Scanlon 1998, 100). There are, of course, many kinds of mental state account, depending (among other things) on what specific mental state is to count.

According to the second kind of account – variously referred to as *state of the world*, *desire fulfillment*, or *preference satisfaction* accounts – well-being is a matter of preference satisfaction (Griffin 1986, 7). According to these accounts, people are well off to the exact extent that their preferences

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[6] This tri-partite division is perfectly standard. The division appears not only in Parfit (1984, 493-502) but also in James Griffin (1986, section 1), and Daniel M. Hausman and Michael S. McPherson (1996, chapter 6). The taxonomy is not unproblematic (cf. Scanlon 1993), but it is good enough for present purposes.

are satisfied. These accounts do not satisfy the experience requirement, because people can be made better or worse off by changes in the world that satisfy their preferences, but that do not in any way enter their consciousness (Scanlon 1993, 186). Since people can feel happy (or whatever) even though their preferences are not satisfied, and *vice versa*, these accounts imply that well-being "can, and it frequently does, come apart from any satisfaction or enjoyment. When you get what you want, you might like it, or you might not. You might not even know you've got it" (Moore and Crisp 1996, 599). Again, there are many kinds of preference satisfaction account, depending (among other things) on what preferences are to count.

The two kinds of account described so far are collectively referred to as *subjective accounts*, because they describe a person's well-being as (at least partly) a function of his or her feelings, experiences, desires, and so on (Scanlon 1975, 656). By contrast, we can identify what we may call *objective* – or *objective list* – *accounts*, according to which a person's well-being does not depend on such subjective factors. Hence: "Objective accounts of welfare appeal to the thought that there are features of the circumstances, position, of characteristics of persons that enable us to judge how well off they are" (Weale 1998, 704). On this view, then, "certain things are good or bad for beings, independently in at least some cases of whether they are desired or whether they give rise to pleasurable experiences" (Chappell and Crisp 1998, 553). There are many different objective list accounts, depending (among other things) on the exact list of things that are included on the list. Candidates for membership include "moral goodness, rational activity, the development of one's abilities, having children and being a good parent, knowledge, and the awareness of true beauty" (Parfit 1984, 499).[7]

[7] Not all accounts of well-being fit neatly in this taxonomy. For example, some accounts are best seen as composite or hybrid views (cf. Parfit 1984, 502).

It should be clear, even from a relatively casual examination, that subjective measures of well-being typically presuppose some mental state accounts of well-being.[8] We can tell, in part, from the fact that psychologists interested in the measurement of well-being largely appear to adopt the experience requirement. For example, David G. Myers quotes Madame de la Fayette as saying: "If one thinks that one is happy, that is enough to be happy," and adds that "like Madame de La Fayette, social scientists view well-being as a state of mind. Well-being, sometimes called 'subjective well-being' to emphasize the point, is a pervasive sense that life is good" (Myers 1992, 23; cf. 1992, 27). Similarly, Ed Diener and Eunkook Suh (1997) write: "Subjective well-being research ... is concerned with individuals' subjective experiences of their lives. The underlying assumption is that well-being can be defined by people's conscious experiences – in terms of hedonic feelings or cognitive satisfactions" (Diener and Suh 1997, 191). The fact that Diener and Suh argue that well-being is not only *concerned* with individual's subjective experiences, but is *defined* by them, strongly suggests that Diener and Suh accept the experience requirement.[9]

By contrast, proponents of economic measures tend to favor preference satisfaction accounts. In the words of Hausman and McPherson: "Welfare economics identifies welfare with the satisfaction of preferences. This identification is so automatic and ubiquitous that economists seldom realize how controversial it is" (Hausman and McPherson 1997, 17). Notice that the satisfaction of preferences is different from feeling satisfied; economic measures are intended to represent the former rather than the latter. Economists also tend to identify well-being with utility,

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[8] This is not to deny that proponents of subjective measures probably have different ideas about the nature of well-being.

[9] Some proponents of subjective measures of well-being can be understood as defending hybrid views (see footnote 7). For example, Daniel Kahneman (2000a, 691) suggests that subjectively experienced happiness is but one of several constituents of well-being properly understood.

which is interpreted as an index of preference satisfaction (Mongin and d'Aspremont 1998, 382). This means that economists can legitimately talk about utility – even as identical to well-being – without making any reference to subjective states like happiness, pleasure, and satisfaction. Indeed, economists take a certain amount of pride in eschewing references to such subjective notions (Hausman and McPherson 1997, 17).

Thus, there is a fundamental difference between the accounts of well-being adopted by proponents of subjective measures and traditional economic measures. The difference has not always been explicitly acknowledged. Consider, for example, some psychologists' criticism of economic measures for being too indirect, in the sense that they do not get directly at "what really matters," which is clearly assumed to be some subjectively experienced mental state (cf. Kahneman, Diener and Schwarz 1999). Although this line of criticism may be correct, it will strike economists as misguided, because it does not explicitly acknowledge that economic measures – whatever their flaws – are not intended to reflect any subjectively experienced mental state. Similarly, economists too often fail to acknowledge that proponents of subjective measures of well-being operate with a different account of well-being than mainstream economists do.

As the previous paragraph suggests, the fact that different measures of well-being presuppose different accounts of well-being is eminently relevant to the assessment of those measures. If it turned out that mental state accounts are inadequate, this would constitute *prima facie* evidence against the subjective measures of well-being (since they were designed to represent mental states). It would not constitute proof, however, since it would remain possible for subjective measures to also represent well-being properly understood. Analogously, if it turned out that preference satisfaction accounts of well-being are inadequate, this would constitute *prima facie* evidence against the economic measures (as they were designed to represent preference satisfaction). Again, it would not constitute proof, since it would remain possible for economic measures to also represent well-being properly understood. Either way, the plausibility of underlying accounts of well-being is eminently relevant to the adequacy of given measures.

4. APPROACHES TO MEASUREMENT

In social and behavioral science, there are (broadly speaking) two different approaches to measurement.[10] As Krantz (1991) puts it: "One, which may be termed the *psychometric* approach, introduces latent [unobservable] variables to explain behavioral orderings. The second ... treats the numerical representation of behavioral orderings axiomatically" (Krantz 1991, 2, my italics). The second approach is sometimes referred to as the *representational* approach (e.g., in Dawes and Smith 1985, 511). For the reason identified by Dawes and Smith (1985, 512) – the fact that all measurement is at bottom about representation – I will call it the *measurement-theoretic* approach.

The psychometric approach – due in large part to the American Psychological Association's 'Technical Recommendations' (1954) and developed by Lee J. Cronbach and Paul E. Meehl (1955) (cf. John and Benet-Martínez 2000, 351-357) – is largely centered around the concepts of "construct" and "construct validation." A construct is "a variable [that] is abstract and latent rather than concrete and observable" (Nunnally and Bernstein 1994, 85). Meanwhile, construct validation is often described as an instance of ordinary hypothesis testing (Johnson 2001, 11316). On this approach, you start off by simultaneously hypothesizing the existence of a construct and proposing a measure of the construct. On the basis of these assumptions, you derive the prediction that (informally speaking) measure of the construct will "behave as expected." By exploring differences

[10] For more on the difference between the two approaches, see Robyn M. Dawes and Tom L. Smith (1985), David H. Krantz (1991), Charles M. Judd and Gary H. McClelland (1998), and Oliver P. John and Veronica Benet-Martínez (2000).

in the measure of the construct across conditions, and relationships between the measure of the construct and measures of other constructs and overt behavior, you can test whether the prediction is true. If it is, you infer that the construct as well as the proposed measures of it have been validated; if it is not, you infer that either the construct does not exist, or the proposed measure is invalid.

The measurement-theoretic approach was first articulated by Dana Scott and Patrick Suppes (1958) but received its canonical statement in Krantz, R. Duncan Luce, Suppes, and Amos Tversky *Foundations of Measurement* (1971). Instead of constructs, this approach emphasizes observable orderings and representation theorems (Krantz 1991, 1). On this approach, you start of with a set A of objects (e.g., rods, commodity bundles), which can be ordered with respect to some property (e.g., length, preference) by applying a simple observable operation. Then, you prove that if the empirical relation $\succ$ satisfies certain properties, then there is a function $\phi(\cdot)$ from A into some set of numbers such that $\phi(\cdot)$ is a *homomorphism*, that is, an assignment of numbers to each member of A such that one object bears relation $\succ$ to another just in case the former is associated with a greater number than the latter.

There is a great deal of evidence that proponents of subjective measures operate within the psychometric approach. First, there is a purely historical connection in that both subjective measures and psychometrics grew out of personality psychology during the early twentieth century (Angner manuscript a; Winter and Barenbaum 1999, 5). Second, proponents of subjective measures often refer to "psychometric criteria" (Lyubomirsky and Lepper 1999, 140) and "psychometric properties" (Diener et al. 1999, 277). More importantly, the manner in which these psychologists defend their measures exhibit all the hallmarks of the psychometric approach to measurement. Among other things, they reveal an obvious desire to establish construct validity in the manner described above (cf. Lyubomirsky and Lepper 1999, 145; Diener et al. 1999, 277). Finally, within contemporary psychology, the measurement-theoretic approach is widely regarded as a failure and is not commonly used (John and Benet-Martínez 2000, 341).[11]

Meanwhile, there is much evidence that proponents of economic measures operate within the measurement-theoretic approach. First, there is a purely historical connection, in that measurement theory was motivated in part by issues relating to utility measurement (Krantz et al. 1971, 9). Second, proponents of economic measures tend to defend their measures precisely in the manner described above (cf. Mas-Colell et al. 1995, 80-82). Thus, economists infer that a given measure has been justified when it has been shown to be that it is computed on the basis of market choices assumed to satisfy the relevant axioms, in conjunction with a formal proof that shows that the measure is an index of preference (i.e. a utility function). This procedure, if successful, in fact establishes that the measure is a homomorphism, just like the measurement-theoretic approach requires. Finally, economists make no effort to validate their measures in the manner favored by the psychometric approach.

Thus, there is a fundamental difference between the approach to measurement adopted by proponents of subjective measures as compared to proponents of traditional economic measures. This difference – like the difference in accounts of well-being – is rarely explicitly acknowledged. For example, economists often reject subjective measures of well-being by saying that mental states like happiness simply cannot be measured: "[the] concept of happiness is one for which there can be no scientific objective measure" (Beckerman 1974, 53). In Angner (manuscript b) I argue that this objection is best understood as the claim that the measurement of happiness does not proceed from an observable ordering, as the measurement-theoretic approach suggests that it should. This line of

[11] See Norman Cliff (1992) for a discussion about why the measurement-theoretic approach is not more widely used in psychology.

criticism does not acknowledge that subjective measures – whatever their flaws – are justified in the manner of the psychometric approach, not the measurement-theoretic one. Similarly, psychologists sometimes criticize economists for failing to properly validate their measures in the manner of the psychometric approach, without mentioning that economists validate their measures in accordance with the measurement-theoretic one.

As the last paragraph suggests, the fact that proponents of subjective and economic measures adopt different approaches to measurement is directly relevant to the assessment of those measures. If it turned out that the psychometric approach is a failure, this would constitute *prima facie* evidence against subjective measures (since they are justified in the manner of the psychometric approach). It would not constitute proof, however, since it might still be possible to validate subjective measures in some other way. Analogously, if it turned out that the measurement-theoretic approach is a failure, this would constitute *prima facie* evidence against the economic measures (since they are justified in the manner of the measurement-theoretic approach). Again, it would not constitute proof, since it might still be possible to validate economic measures in some other way. Either way, it should be clear that the adequacy of different approaches to measurement is eminently relevant to the adequacy of measures of well-being.

5. CONCLUSION

Though the discussion in this chapter has been brief, we have seen that subjective and economic measures of well-being rest on radically different philosophical foundations. First, whereas subjective measures are typically understood as representing some mental state account of well-being, economic measures are typically understood as representing some preference-satisfaction account. Second, whereas subjective measures are typically justified in accordance with the psychometric approach to measurement, economic measures are typically justified in accordance with the measurement-theoretic approach. The discussion suggests that attention to the philosophical foundations of measures of well-being can shed light on their nature as well as on the differences between alternative measures.

A better understanding of the philosophical foundations of measures of well-being could help clarify the strengths and weaknesses of such measures. As I have suggested, the assessment of a measure of well-being depends to some extent on its philosophical foundations: both on the plausibility of the underlying account of well-being and the success of the relevant approach to measurement. The connection between the measures and their philosophical foundations is of course more complicated than I have indicated here, and could only be explored in a much longer study. Still, the discussion has important implications. One such implication is that some attention to the philosophical foundations of measures of well-being is unavoidable; a complete defense of a given measure will have to say something about the nature of well-being and approaches to measurement. In conclusion, I hope to have shown that there is much to be gained from exploring philosophical foundations. By taking explicit account of philosophical foundations of our efforts to measure of well-being, we can hope to gain a better understanding of both the nature, strengths and weaknesses of our measures.

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