

**CLIMATE CHANGE AND SUSTAINABLE WELFARE:
AN ARGUMENT FOR THE CENTRALITY OF HUMAN NEEDS**

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Abstract¹

Climate change threatens human wellbeing, not just in the ‘here and now’ but spatially across the globe, and temporally into the future including the far future. How can we conceive of human wellbeing over such a broad ambit? This paper argues that only a concept of human need can facilitate both global and intergenerational comparisons. The paper argues this by comparing need theory with three major alternative ways of conceptualising human wellbeing: welfare economics and preference satisfaction, hedonic psychology and happiness, and the capability approach. Want satisfaction theory is criticised on the grounds of subjectivity, epistemic irrationality, endogenous and adaptive preferences, the limitlessness of wants, the absence of moral evaluation, and the inability to conceive of future preferences. These problems remain unsolved by the happiness approach.

The main section attempts to show that these deficiencies can be addressed by the human need approach. It draws on an earlier work with Len Doyal, *A Theory of Human Need* (1991), and a survey of the resurgent interest in need theory. Human needs, it is argued, are by definition necessary preconditions to avoid serious harm, are universalisable, objective, empirically grounded, non-substitutable and satiable. They are broader than ‘material’ needs since a need for personal autonomy figures in all theoretical accounts. While needs are universal, need satisfiers are most often contextual and relative to institutions and cultures. The satiability and non-substitutability of needs is critical for understanding sustainability. The different capability approaches of Sen and Nussbaum have much in common with need theory, but the paper concludes, with others, that need theory is more fundamental since it can identify ‘basic functionings’ in a convincing and universalisable way.

Finally, human needs provide the only concept that can ground moral obligations and a concept of justice applicable across global space and intergenerational time. Need theory is thus well placed to contribute to current discussions on social and intergenerational justice, including the distribution of responsibilities for, and obligations to mitigate, climate change.

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² The scope of this paper does not extend to discussions about the measurement of wellbeing, nor its empirical determinants, issues of causality, or questions of public policy.

'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: 1) the concept of 'needs'... 2) the idea of limitations...' (Brundtland Report, WCED 1987: 43)

Introduction

Climate change threatens human wellbeing, not just in the 'here and now' but spatially across the globe, and temporally into the future including the far future. How can we conceive of human welfare over such a broad ambit? This paper argues that only a concept of human needs can do the theoretical work required. This work comprises (at least) the following. *First*, to conceive, measure and compare human wellbeing across time and space. This is essential because, as both Brundtland and Stern emphasise, mitigating climate change must be confronted simultaneously with addressing continuing global poverty, and both in a context of egregious global inequality. *Second*, to establish a secure moral grounding for pursuing these global goals and to provide guidance on priorities: here the distinction between needs and wants can play an important role. *Third*, to provide a convincing alternative to preference satisfaction theory, which encounters insuperable problems yet which remains the hegemonic theoretical approach to wellbeing.

These claims are argued by comparing need theory with welfare economics and preference satisfaction; and more briefly with two other approaches to wellbeing: hedonic psychology and happiness, and the capability approach.

One problem with advancing human need as an alternative measure of welfare in the past has been the relative paucity of theoretical work on the concept. For example, the Brundtland Report, having placed need centre-stage in its report, says nothing more about what needs are! Dobson's (1998) interesting work on justice and the environment explicitly focuses on the contrast between needs and wants, but without any explication of the idea of need. We encounter a similar gap in literature on many welfare state policies, which require for their justification a distinction between needs and wants, a distinction which is rarely if ever addressed on a theoretical level. To take needs for granted in this way lays the concept open to neglect or ridicule or attack by advocates of the well-worked-out preference satisfaction theory. Thus the central section of this paper proposes a coherent theoretical framework for conceiving and analysing human needs.

This paper begins with a short summary and critique of the dominant preference- or want-satisfaction approach. The second section sets out in some detail a theory of human need, drawing on our earlier book *A Theory of Human Need* and a selective survey of the resurgent literature. The third section elaborates further features of need-satisfaction as an alternative criterion of human wellbeing, and extends its scope to both global and intergenerational comparisons. The fourth section compares this theory with the capabilities approach associated with Amartya Sen and Martha Nussbaum; it recognises broad similarities but pinpoints crucial differences. The fifth section considers the moral and justice implications, including obligations to meet the needs of 'strangers' across the world and in future generations. The sixth section summarises and concludes.²

² The scope of this paper does not extend to discussions about the measurement of wellbeing, nor its empirical determinants, issues of causality, or questions of public policy.

What do we mean by wellbeing? The older English term 'welfare' can be traced back to the fourteenth century, when it meant to journey well and could indicate both happiness and prosperity (Williams 1983). In the twentieth century it acquired two more specific but very different meanings. On the one hand, the field of welfare economics invented by the Cambridge economist Pigou defined welfare in terms of the subjective value to individuals of different bundles of goods. On the other hand, welfare came to be associated with the assessment of and provision for needs in the 'welfare state', and acquired an increasingly objective, external interpretation. Later in the twentieth century, discourses on agency, participation and multidimensional views of poverty paved the way for the reinvention of the older idea of wellbeing, which can be traced back to Aristotle and the Buddha (Gough et al 2007). From now on I assume that both welfare and wellbeing (which terms are used interchangeably) are umbrella concepts with disputed meanings. Hence I consider the four schools of thought below as different interpretations of welfare or wellbeing.³

Wants, preferences and consumer sovereignty

What follows is a very brief summary of a well-trodden field (see Hausman and McPherson 2006 for an in depth treatment). Orthodox welfare economics rests on two fundamental principles. The first is that individuals are the best judges of their own interests, or more narrowly, their preferences or wants. Following from this, the second is the principle of consumer sovereignty: that what is produced and consumed should be determined by the private consumption and work preferences of individuals (Penz 1986). Although not widely recognised, together these claims form the foundation of both the normative arguments for markets and the monetary measures of economic success, such as income and GDP, that dominate our lives. Yet the ability of this framework to both understand and guide human behaviour can be challenged on several grounds, which apply *a fortiori* in the modern world threatened by climate change.

First, the idea that individuals are the sole authority in judging the correctness of their wants is severely compromised if there are limits to people's knowledge and/or limits to their rationality in judging the correct means to their chosen ends. Regarding faulty knowledge, Penz concludes 'wants based on ignorance are epistemically irrational' (Penz 1986: 63). Hodgson (2013: 197), writing on ecological economics, puts it still more pithily: 'Any welfare approach based on the presumption that individuals are always the best judges of their own interest falls at the first hurdle: many people neither understand nor accept the conclusions of the science of climate change'. As regards rationality, the entire body of work associated with Daniel Kahneman (2011) has demonstrated the numerous ways that people act and decide in irrational ways, particularly when faced with uncertainty.

Related to this, second, is the problem of 'adaptive preferences' - the unconscious altering of our preferences in light of the options we have available (Elster 1977). Sen (1999) discusses this in terms

³ Amartya Sen has used 'wellbeing' in a distinct way to refer to 'a person's being seen from the perspective of her own personal welfare', as contrasted with 'agency goals', which can include other goals such as pursuing the welfare of others (Sen 1993: 35-36). This usage does not appear to be a common one and I shall not follow it here.

of deprived people lowering their desires and reconciling themselves to fate, but it is also relevant in understanding the constant upward pressure on the desires of people in affluent societies which results in no more satisfaction (Easterlin 1974). This evolved facility is enormously helpful in enabling humans to accept fate – the ‘serenity to accept things that cannot be changed’. But it poses insuperable problems for welfare economics: if preferences adapt to circumstances, how can choice in markets provide a means of comparing the wellbeing of people in different circumstances, especially over global space and intergenerational time?

Furthermore, markets and economic institutions themselves influence the evolution of values, tastes and preferences – even personalities (eg Bowles 1998). It has been claimed, for example, that extending markets into more and more areas of life encourages the very self-interested behaviour assumed by welfare economic theory (Sandel 2012), and this is confirmed by recent empirical work in psychology (). Preferences are thus endogenous to such institutions, not exogenous and peculiar to individuals. For our purposes, a problematic consequence is the circularity of evaluation: if wants are shaped by the institutions and processes of production and distribution which meet those wants, then they cannot provide an independent standpoint with which to evaluate the functionings of those institutions and processes. Thus to proclaim the principle of consumer sovereignty is to respect the current factors and forces shaping preferences as either optimal or unchangeable. The dilemma of adaptive preferences is still more pressing in modern hyper-consumption societies.

Third, more generally, the model of *Homo economicus* has been subject to withering criticism from all directions: theoretical, experimental, sociological and historical/evolutionary. The fundamental assumption that every individual is actuated only by self-interest is simply wrong; behaviour can be and is also motivated by concern for others. In a long process of gene-culture co-evolution, humans have acquired a social morality and social preferences – ‘a concern for the wellbeing of others and a desire to uphold ethical norms... People think that cooperating is the right thing to do and enjoy doing it, and they dislike unfair treatment and enjoy punishing those who violate norms of fairness’ (Bowles and Gintis 2011: 10, 38). These traits form the basis for anthropological and social studies of cultural values and their transmission, but are destructive for orthodox economic theory. Many efforts have been made to introduce into the theory a more rounded individual with ‘other regarding’ utility functions that takes into account the utility received by others. However, it then encounters severe problems in aggregating utilities across people (Hausman and McPherson 2006).⁴

Fourth, according to the neoclassical theory of consumption, there are no necessary *limits* to preferences and desires (Guillen Royo 2007, O’Neill 2011). Individuals can become satiated through the consumption of individual goods via the mechanism of diminishing marginal utility, but there are no necessary limits to satisfaction through consuming more different goods and services. Indeed, a peculiarly avaricious agent is the standard assumption in neoclassical economics: a larger bundle of commodities is always preferable to a smaller one. The obvious logical possibility that people can exchange more ‘leisure’ for more consumption has been all but ignored in neo-classical economics (Skidelsky 2013).

⁴ ‘The protean fallacy of individualism’ entails no recognition of the interdependence of people within groups and societies, nor the role of cooperation. ‘Individualism. .. is an analytical impossibility, at least for any social science’ (Hodgson 2013).

Fifth, specifying welfare entirely in terms of preferences ‘flattens moral distinction between the seriousness that different welfare demands make on both individual and social choices’ (O’Neill 2011). The point is put well by Henry Shue:

For standard economic analysis everything is a preference: the epicure’s wish for a little more seasoning, the starving child’s wish for a little water, the collector’s wish for one more painting, and the homeless person’s wish for privacy and warmth, all are preferences. Quantitatively, they are different because some are backed up by greater “willingness to pay” than others, but qualitatively a preference is a preference...’ (Shue, 1993:55).

By contrast, as we shall see, human needs explicitly introduce moral criteria into the conception and appraisal of human wellbeing.

Finally, preference satisfaction theory is particularly unsuited to considering the wellbeing of future generations, contributing to a narrow view of sustainability (O’Neill 2011, 2014). The preferences of future generations cannot be revealed through their choices or behaviour. How then can any provision for future generations be decided? The orthodox view is that what should be passed on is a stock of ‘capital’ that will permit a level of consumption per head at least as high as present. Solow, a Nobel economist, concluded that sustainability entails leaving ‘to the future the option or the capacity to be as well off as we are. It is not clear that one can be more precise than that’ (Solow 1991). From this it follows that ‘we do not owe to the future any particular thing. There is no specific object that the goal of sustainability, the obligation of sustainability, requires us to leave untouched’ (Solow 1993: 181). Preference satisfaction theory provides little guidance on the prerequisites for future wellbeing.

The conclusion is that preference satisfaction cannot provide a logical or ethical conception and measure of human wellbeing – and especially so when we must consider wellbeing on a global and inter-generational scale.

A note on happiness and subjective wellbeing

Many of the same problems occur within a spectrum of other subjectivist conceptions of wellbeing. These include Kahneman’s (1999) conception of hedonic psychology – ‘the study of what makes experiences and life pleasant or unpleasant’; Diener’s (1984, 1994) detailed researches into life satisfaction; and Layard’s resurrection of the economics of happiness (2005). This work has developed useful measures of subjective wellbeing and a mass of solid findings on its determinants. Interestingly these findings undermine the above opulence approach by demonstrating that, beyond a rather modest income level, happiness or subjective wellbeing is not associated with continuing growth in real incomes (Easterlin 1974). Layard contends that happiness provides a measure of wellbeing, a motivating device akin to Bentham’s balance of pleasure and pain, and a unifying principle to guide policy.

Unfortunately, happiness theory and metrics face some similar problems to preference satisfaction theory (Gough et al 2007: 25-33; Gasper 2010). First, adaptation is pervasive; the process of adjusting expectations to reality appears to be a universal feature of the human condition applying to both losses and gains and to individual and collective events. Second, there is evidence of cultural bias: national values of individualism are correlated with reported wellbeing, so that cultures evoking a ‘modesty bias’, as in some countries of East Asia, report lower wellbeing scores. Third,

happiness may be dysfunctional in hostile environments, encouraging powerless people to believe they can significantly control their lives, and blaming themselves when they fail. These problems may be controlled for when comparing wellbeing within societies, and the approach yields important findings, for example on the role of hope in subjective wellbeing. However, they fatally undermine the ability of happiness to provide a measure of wellbeing across cultures and times.

A Theory of Human Need

In this section I restate and develop the argument in our book *A Theory of Human Need* (hereafter THN).⁵ I contend that the idea of common human needs provides a superior theoretical framework with which to conceive of human welfare, which overcomes each of the critiques levelled against preference satisfaction. This is also the position of other theorists of human welfare from different backgrounds including Braybrooke (1987), Gasper (1996, 2009), Wiggins (2005), Brock (2009) and O'Neill (2011).⁶

Our approach is *hierarchical* moving from universal goals, through basic needs to intermediate needs, as illustrated in Figure 1.

⁵ Doyal and Gough 1991. The book was awarded both the Myrdal and Deutscher prizes in 1992 and has been translated into Spanish, Italian, Chinese and Japanese. For a slightly different presentation see Gough 2003, 2014.

⁶ For some subsequent debates and critiques see Soper 1993, Hamilton 2003, Thomson 2005, Reader 2005, 2007, Schuppert 2013. Des Gasper has for over two decades produced an insightful and comprehensive interrogation of the concepts of needs, wellbeing and associated ideas: 1996, 2004, 2005, 2007, 2009. Another wide-ranging survey is Dean 2010.

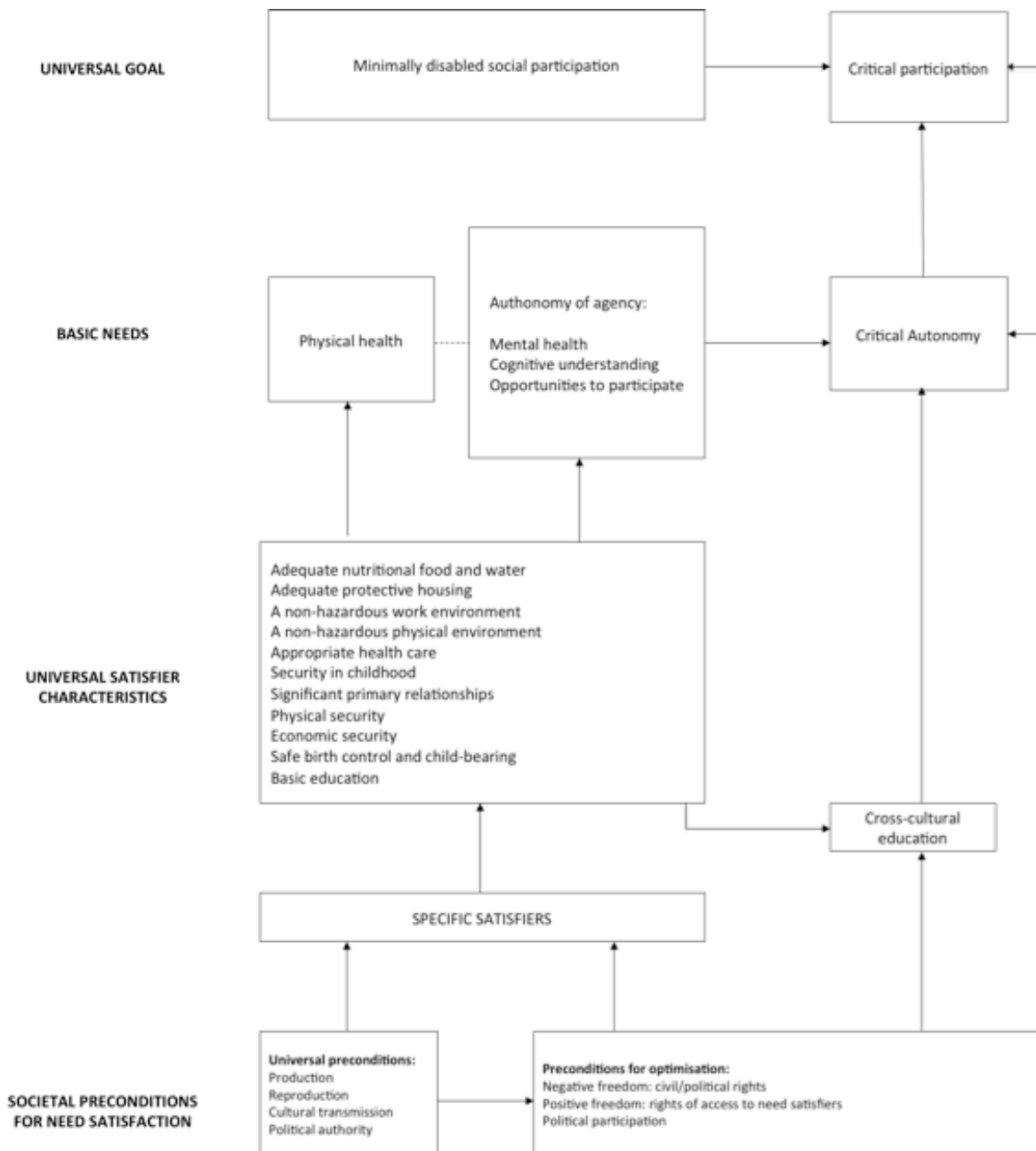


Figure 1. The theory of need in outline

Identifying universal goals

‘Need’ refers to a particular category of goals which are believed to be universalisable. The contrast with wants, goals which derive from an individual’s particular preferences and cultural environment, is central to our argument. The universality of need rests upon the belief that if needs are not satisfied then *serious harm* of some *objective* kind will result (cf Wiggins 2005). We define serious harm as the significantly impaired pursuit of goals which are deemed to be of value by individuals. Serious harm is ‘fundamental disablement in the pursuit of one’s vision of the good, whatever that vision is’ (THN 50). It is not the same as subjective feelings like anxiety or unhappiness.

Another way of describing such harm is in terms of impaired social participation. Whatever our private and public goals, they must always be achieved on the basis of successful social interaction, past, present or future, with others. This definition explicitly acknowledges the social character of human action. Whatever the time, place and cultural group we grow up and live in, we act in it to some extent. Following Braybrooke (1987) we relate needs to what is necessary for social functioning. It follows that *participation* in some form of life without serious arbitrary limitations is 'our most basic human interest' (THN 50-55, chapter 5).

Basic needs: health and autonomy

Basic needs are then the universalisable preconditions for non-impaired participation in any form of life. Can these common prerequisites for avoiding serious harm be identified more systematically without smuggling in too specific a theory of the good? The approach in THN was to ask what physical and mental capacities a person must possess to pursue their goals, whatever these goals are. To do this a person must be able to formulate aims, beliefs about how to achieve them, and act to strive to achieve them in practice. Thus whatever a person's goals, whatever the cultural practices and values within which she lives, she will require certain prerequisites in order to strive towards those goals. In this way we identify physical *survival/health* and personal *autonomy* as the most basic human needs – those which must be satisfied to some degree before actors can effectively participate in their form of life to achieve any other valued goal (THN 54). I discuss each in turn.

Survival alone cannot do justice to what it means to be a person, as a discussion of the victim of a motor accident in a deep coma on life support reveals.⁷ Thus it is *physical health* which is a basic human need. To complete a range of practical tasks in daily life requires manual, mental and emotional abilities with which poor physical health usually interferes. We recognise that defining health and illness is not easy and empirically rebut claims that conceptions of health are always internal to cultural systems of thought and thus inherently contestable. We tackle this by considering persons from different cultures suffering from (what the biomedical model terms) TB. However different peoples name and explain their illness, they will all suffer one or more dimensions of disability. They will also regard their situation as abnormal – unless there is some reason like famine or plague why most others are also failing in health – and will seek to overcome it.

However, limiting the idea of need to maintaining physical health and its pre-requisites is quite inadequate. It would be open to Sen's (1984) claim that 'need' is a more passive concept than capability; that it is associated with dependence and the person as a patient. Our second universal need is autonomy, which requires a longer discussion.

Autonomy

We define basic autonomy as the 'the ability to make informed choices about what should be done and how to go about doing it' (THN 53). This foundation of human purposive action is applicable to a wide variety of human contexts and predicaments, from oppressive and totalitarian contexts to ones with wide options for creative participation. But all can entail creative reflection; indeed, the poor and oppressed must perforce act autonomously and creatively for much of their lives in order to achieve minimal goals (THN: 59-69, 180-187; Gough 2014).

⁷ Whether or not such a victim regains the capacity to act will eventually determine his or her fate.

Three key variables, we argue, affect levels of individual autonomy of agency (THN 59–59). First, *cognitive and emotional capacity* is a necessary pre-requisite for a person to initiate an action. Since all actions have to embody a modicum of reason to be classed as actions at all, it is difficult to give a precise definition of the *minimum* levels of rationality and responsibility present in the autonomous individual. At its most basic level it can be understood negatively as mental illness. Mental health is then the obverse of this – ‘practical rationality and responsibility’ (THN 62). We again address, though by no means systematically, some of the difficult issues of conceptualising and measurement this poses, citing evidence on the experiences and symptoms of mental illness across cultures. For example, we conclude in the case of severe depression that there is a common core of disabling symptoms found in all cultures, including hopelessness, indecisiveness, a sense of futility and lack of energy (THN 180). These common symptoms lead to the same kinds of disability across cultures, notwithstanding divergent - and even incompatible - ways of interpreting them.

The second determinant of individual levels of autonomy is the level of *cultural understanding* a person has about herself, her culture and what is expected of her as an individual within it. These understandings will include both universal competences, such as the acquisition of language in early childhood, and a host of socially specific skills (which, though variable can objectively appraised). To deny a person such basic cognitive capacities is to threaten his self-respect. Third, autonomy of agency requires a range of *opportunities* to undertake socially significant activities. By ‘significant’ we mean activities which are central in all societies.⁸ Again, there is a problem in determining minimum opportunity sets, given that even the most oppressed of people can and will exercise choices. Nevertheless, some minimum freedom of agency is an essential component of autonomy of agency in all cultures. We use these three components to operationalise and measure autonomy and its absence (THN ch 9).⁹

This autonomy of agency enables people to achieve a minimally disabled level of participation in their social environment. But we can go on to distinguish a higher level of *critical autonomy*: ‘the capacity to compare cultural rules, to reflect upon the rules of one’s own culture, to work with others to change them and, *in extremis*, to move to another culture’ (THN 187). This requires, beyond freedom of agency, some measure of political freedom. At this level, drawing on imagination, past examples or comparisons with other ways of life, people can begin to question the *doxa* or taken-for-granted cultural frames of their own ways of life. In the 21st century such questioning is all the more necessary. This distinct notion of *critical* participation is illustrated on the right-hand side of Figure 1.

This concludes my brief discussion of autonomy as the second universal basic human need. This makes clear that need theory is far from a passive conception extolling dependency. Indeed it brings it closer to the capability approach discussed below. I hope it also dispels an opposite critique: that our theory of human need posits a crassly individualist view of personhood that undergirds the

⁸ Braybrooke (1987) classifies these as the roles of parent, householder, worker and citizen. We rephrase these as the acting in the realms of production, reproduction, cultural transmission and political authority (THN ch.5), about which more below.

⁹ There is considerable overlap here with research within Sen’s capabilities approach. For example, Burchardt et al (2013) define autonomy as choice, control and empowerment in critical areas of a person’s life, and distinguish three components: self reflection, active decision-making and having a range of (high quality) options.

preference satisfaction approach – an asocial Western view of man. We emphatically reject this critique. On the contrary we conceive autonomy as a relational, not an individualistic, concept. People build a self-conception of their own capabilities through interacting with and learning from others (THN 76-80). Autonomy presupposes interdependence.¹⁰

O'Neill (2011) goes further, arguing that needs theory, whilst clearly advocating autonomy, avoids a 'vice' of *Homo economicus* and preference-satisfaction theory: what MacIntyre (1999) calls 'unacknowledged dependence' and Benson (1983) 'arrogant self-sufficiency'. Claims of self-sufficient individuals ignore our dependence, not only on other people but also on planetary physical and biological systems. 'There is hubris in the failure to acknowledge our dependence on natural processes and the limits of our knowledge of these processes and our capacities to control them'. The concept of needs 'may have its own virtues in drawing attention to the vulnerabilities and dependence that are constitutive of human life' (O'Neill 2011: 38). This is of central importance when considering sustainable wellbeing in the context of environmental threats such as climate change.

Biological constraints on human needs

The above argument has assumed a biological background to human needs: it accepts the constraints on human needs given by prior evolution and our genetic structure. We are linked to other animals in a variety of ways, through being bipedal mammals, warm blooded, suckling, naked descendants of apes, with an upright gait and flexible hands. But we also have large, developed brains and a corresponding capacity unmatched in evolution to communicate with each other, to reason and to create projects. As a direct result of our brain size which has necessitated the relatively early birth of human babies, we have a remarkably extended period of dependence in childhood. These features roughly define human nature as distinct from that of dogs or trout, say. They set natural boundaries on human needs (THN 37). Our mammalian constitution shapes our needs for such things as food and warmth in order to survive and maintain health. Our cognitive aptitudes and the bases of our emotionality in childhood shape many other needs - for supportive and close relationships with others, for example.

The recognition of genetic and biological constraints distinguishes human need theory from alternative approaches to wellbeing. But 'constraint' must not be confused with 'determination'. There are numerous examples where choices of reasons and actions may challenge genetic predispositions, even if the latter can be objectively established. It is for this reason that we reject what is probably still the most famous analysis of human needs: that of Abraham Maslow (1954). This is a theory of motivations or drivers of human action; whereas ours is a theory of universalisable goals. One result is that the pursuit of universal human needs will not necessarily be internally motivated; one may desire things harmful to need-satisfaction and not desire essential need satisfiers. Need theories like ours 'lack a behavioural motor behind them', in Gasper's words (2007: 66). There will be many times when motives, and the preferences they support, will drive the meeting of basic needs, but that cannot be assumed (Gasper provides a careful analysis of these issues).

¹⁰ In a study of the expression of autonomy in Bangladesh we conclude, 'Individual autonomy must always be achieved in an institutional context, and this assumes interdependence. Any concept of autonomy which does not begin from this ontological fact is worthless' (Devine et al 2008: 113).

The eudaimonic school of psychology studies the biological and evolutionary foundations of human needs but avoids these problems and provides powerful support for our approach (Ryan and Deci 2001, Ryan and Sapp 2007). Starting from the non-controversial observation that all living things need nourishment, a variety of harms result when this is not available, as all tenders of house plants know. In the case of the human species, they identify universal *psychological* needs, and propose cross-cultural ways of measuring their satisfaction. These needs comprise, first, autonomy: the propensity to self-regulate one's actions and to endorse one's own behaviour; secondly, competence: feeling able to attain outcomes and operate effectively within one's environment; and thirdly, relatedness: feeling cared for, and significant for, others, and a sense of being integral to one's social organisation. These needs are cross-cultural: all humans require that they be met in order to experience wellbeing (Ryan and Sapp 2007). Their conclusion mirrors that of THN (though they were arrived at independently): that basic needs are universal and it is possible in principle and in practice to compare levels of basic need-satisfaction across cultures (THN 73–74; see below).

Needs and need satisfiers

While basic needs are universal, many goods, services, activities and relationships required to satisfy them are culturally and temporally variable. For example, the needs for food and shelter apply to all peoples, but there are a large variety of cuisines and forms of dwelling which can meet any given specification of nutrition and protection from the elements. We follow Max-Neef (1989) in distinguishing these *need satisfiers* from human needs. This distinction plays an important part in rebutting another common objection: that need theory is paternalist and insensitive to context.

However, if this were all we could say, it would land us back with a relativism: having identified basic human needs we could say no more about routes to their satisfaction. Can a conceptual bridge be built to link basic needs and specific satisfiers? We contend that the notion of 'universal satisfier characteristics' can fulfil that role (THN 155-157). If we define '*satisfier characteristics*' as that set of all characteristics that have the property of contributing to the satisfaction of our basic needs in one or any cultural setting, then we can in principle identify a subset of *universal satisfier characteristics* (USCs): those characteristics of satisfiers which apply to *all* cultures. USCs are thus those properties of goods, services, activities and relationships which enhance physical health and human autonomy in all cultures. For example, calories a day for a specified group of people constitutes a characteristic of (most) foodstuffs which has transcultural relevance. This bridging role of USCs is illustrated in Figure 1.

To identify these USCs, we turn to two sorts of *scientific* understanding. First, there is the best available scientific/ technical knowledge articulating causal relationships between physical health or autonomy and the numerous factors impacting on them. Second, there is comparative anthropological knowledge about practices in the numerous cultures and sub-cultures, states and political systems in the contemporary world. Thus to begin with it is the *codified* knowledge of the natural and social sciences that enable us to determine the composition of such 'intermediate' needs. This knowledge changes and typically expands through time. The concept of human need we develop is historically open to such continual improvements in understanding, for example the astonishing advances in the biomedical understanding of health and disease.

Such codified knowledge is inherently elitist, which gives rise to another common criticism of the needs approach – that it is paternalist at best, totalitarian at worst. But this criticism is deflected by a

further epistemic requirement – that such codified knowledge must be complemented by the appeal to the *experientially grounded* knowledge of people (THN 120-126, 309-310). The world is replete with examples where ‘top-down’ knowledge is imposed on peoples without any understanding of context and practical knowledge, resulting in oppressive or absurd outcomes. Conversely, there are numerous examples of the countervailing advantages of participation and decentralisation, admirably theorised by Alkire (2002, ch.4).

Thus any rational and effective attempt to resolve disputes over how best to meet needs must bring to bear both the codified knowledge of experts and the experiential knowledge of those whose basic needs and daily life world are under consideration. It requires a *dual strategy* of public policy formation which values compromise, provided that this does not extend to defining the general character of basic human needs (THN 141). This also applies to understanding the synergies and conflicts between satisfiers of different groups of needs (Max-Neef 1992). It follows that identifying need satisfiers is a collective process, akin to Dewey’s idea of ‘social intelligence’ (Dewey 1935; Hodgson 2013). It is the very opposite of individuals arriving at their own preferences, or, far more common today, arriving at them within a context of vested interests and constellations of power. Reasons for needing are essentially *public*, drawing on a shared understanding of what sorts of strategies actually do avoid harm.

The epistemology of needs

Finally, this provides another way of summarising the distinction between need and preference: the concept of need is objective whereas that of preference is subjective. The truth of the claim that a person needs clean water depends on the objective physiological requirements of human beings and the nature of the satisfier, including its capacity to contribute to the health of the person. In contrast, the truth of the claim that a person prefers Bowie to the Beatles depends on the nature of the person’s beliefs about and attitudes towards the objects. Put another way, statements about wants are intentional, whereas statements of need are ‘extentional’: their truth depends on ‘the way the world is’ and not ‘the workings of my mind’ (Wiggins 1985: 152). It is quite possible to need something that you do not want; indeed ‘you may need it without even knowing of its existence’, as a diabetic needs insulin to avoid serious harm (THN 42).

Further implications of theorising human needs

At this point the major features of our theory of human need have been summarised, as illustrated in Figure 1. (The final level, ‘social preconditions’, will be discussed below). The paper now considers some more implications of the approach, including trans-generational needs, which further distinguish it from preference theories.

Non-substitutability and lists of needs

Unlike preferences, human needs are not additive. Certain packages of need satisfiers are necessary for the avoidance of harm. ‘One domain of intermediate need-satisfaction cannot be traded off against another’ (THN 166; cf Nussbaum 2000: 81). More education is of no help to someone who is starving. Human needs are irreducibly plural. This is quite different from preferences where continuity is the default assumption: given any two goods in a bundle it is always possible – by

reducing the amount of one fractionally and increasing the amount of the other fractionally – to define another bundle which is indifferent to the first (O’Neill 2011).

The construction of *lists* of needs follows from this. In THN, the category of USCs provides a list of derived or second-order goals, which must be achieved if the first-order goals of health and autonomy are to be attained (THN 155-59; Gough 2003; 2014). We group these USCs, or ‘intermediate needs’, in the following eleven categories: nutritional food and clean water, protective housing, non-hazardous living and work environments, safe birth control and child-bearing, appropriate health care; significant primary relationships, security in childhood, physical and economic security, and appropriate education. Broadly speaking, the first six contribute to physical health and the last five to autonomy.

There exist many other similar lists, differing in their ‘verbal wrappings’ and ontological and epistemological features. Alkire’s thorough research (2002) finds thirty-nine lists of dimensions of human development, ranging from Nussbaum’s central human functional capabilities to Max-Neef’s axiological categories, from Narayan’s dimensions of well-being to Qizilbash’s prudential values for development. She focuses on nine, including THN, and identifies a wide overlap. In an exercise comparing Nussbaum’s influential list with our own, I note that her ‘affiliation’ is similar to our central goal of participation and practical reason is closely related to our basic need for autonomy; our need for health includes her ‘bodily integrity’ alongside ‘bodily health’ (Gough 2003, 2014). These in turn map closely on Ryan’s basic psychological needs for relatedness, competence and autonomy, introduced above. These very substantial overlaps give us confidence in enabling need theory to provide substantive guidance for tracking and satisfying unmet needs.

Satiability, sufficiency and need thresholds

The non-additivity of need is related to another feature quite distinct from preference: need is a threshold concept or, put another way, basic needs and intermediate needs (USCs) are satiable. Even in the case of health and autonomy, thresholds can be conceived where serious harm is avoided such that non-disabled social participation can take place. The distributive principle entailed by the needs approach is to minimise ‘shortfall equality’: the shortfall of actual achievement from the optimum average (Sen 1992; Ruger 2009). The implied goal is sufficientarian: to bring all individuals up to such a threshold. It says nothing at this stage about inequalities above this level.

But how are appropriate thresholds to be decided and measured? In our case, the idea of ‘appropriate’ has to be defined at the level of both basic needs and USCs (see Gough 2014: 375-378 for a longer treatment).

In terms of health and autonomy, our approach endorses neither absolute minimum, nor culturally relevant standards, but an *optimum* standard. ‘In principle, such satisfaction is adequate when, using a minimal amount of appropriate resources, it optimises the potential of each individual to sustain their participation in those constitutive activities important for furthering their critical interests’ (Doyal and Doyal 2013: 14). Such critical optimum levels of health and autonomy can be operationalised in practice by reference to the best level of need-satisfaction attained anywhere in the world at the present time, or a higher standard which is materially feasible at the present time (THN 160).¹¹ At a more aggregated level, cross-national indicators of objective wellbeing can be

¹¹ Cf Burchardt et al (2012) on comparing levels of autonomy.

compiled and comparisons made; these suggest that the Scandinavian countries remain good exemplars. In the real world, this optimum threshold can and will be constrained due to stymied development and inadequate resources, notably in the global South. Here a *constrained* optimum can be devised, reflecting the best standards achieved by nations or other social groups at different levels of development.¹² ‘Ought implies can’, a precept which raises many issues of global inequality and injustice which cannot be addressed here. Suffice it to note that ‘optimise’ is not the same as ‘maximise’.

At the next level – USCs - we identify a ‘minimum optimum’ or *minopt* threshold. We argue that increasing inputs of USCs, such as nutrition or child security, will typically yield increasing increments of health or autonomy but with diminishing returns – beyond a certain point there is no further benefit. In principle, this defines threshold levels of each USC.¹³ In practice, there are problems in the area of health care where huge resources can secure marginal improvements in health (Ruger 2009), and to a lesser extent in education and economic security. But in principle the method for identifying a sufficiency level or range is clear (THN ch.10).

The needs of future generations

The Brundtland Report refers to the needs of people in the present and the future, and I turn now to demonstrate that our need theory can conceptualise wellbeing across generations.

To begin with, the *basic* needs of future generations of humans will be the same as those of present humans. To avoid serious harm and to participate and act within future human societies people will require the same logical preconditions: not just survival, but health and autonomy. The epistemology of reasoning about needs remains extensional, not intentional, and thus avoids the indeterminacy of reasoning about future preferences.

Furthermore, the broad categories of USCs will apply to future generations of humans as much as the present. This stems from the biological, physiological and psychological foundations of human needs outlined above. Until the genetic make-up of *Homo sapiens* changes significantly, we can assume that the same universal satisfier characteristics will apply. Future people will have needs for affiliation, cognitive and emotional expression, understanding and critical thought. To achieve these they will need specific minima or *minopt* levels of water and nutrition, shelter, a non-threatening environment and work practices, significant primary relationships, security in childhood, physical and economic security, education and health care.

Together, this amounts to a remarkable – and pretty obvious – degree of knowledge about the constituents of future peoples’ wellbeing. Compared to the indeterminacy of future generations’ preferences a theory of need provides some firm foundations on which to build sustainability targets for public policy. For example, given the limits to the substitutability of different need satisfiers, we can say more about what needs to be ‘passed down’ to future generations. In O’Neill’s (2011: 33) words (and using the terminology of functionings): ‘Each generation needs to pass down the

¹² Writing in the late 1980s we concluded that the best performing middle income country was Costa Rica and the best poor nation was Sri Lanka (THN ch.13).

¹³ In some cases, larger quantities of satisfiers become positively harmful, such as vitamins A and D, indicating a maximum as well as a minimum threshold (THN 161-164).

conditions for livelihood and good health, for social affiliation, for the development of capacities for practical reasoning, for engaging with the wider natural world and so on'.¹⁴

However, there remains much greater uncertainty about the specific need satisfiers for achieving such future need satisfactions. This reflects among other things our inherent ignorance about the pace and direction of future technological change. While specific numbers of calories and nutrients will be needed, we cannot know how agricultural techniques and food production will or could change. We do not know what breakthroughs in preventive or genetically based health care will take place. We do not know what new threats to human security will require extensive or novel forms of remedial action. At this level, we remain ignorant about the detailed nature and quantum of need satisfiers that future peoples in future contexts will require to achieve USC thresholds.

Societal preconditions for sustainable wellbeing

However, we can say more about the *institutional* satisfiers or *societal preconditions* for delivering need satisfactions in the future. These will vary over time and space, but it is possible again to identify certain universal 'societal preconditions' which have to be satisfied by all collectives if they are to survive and flourish over long periods of time. Following Braybrooke (1987: 48–50), we identify four such preconditions: *production, reproduction, cultural transmission and political authority* (THN chs 5, 11. See Figure 1).

To take just the first, for example, all economic systems would need to be assessed according to their ability to produce enough appropriate need satisfiers. However, the plurality, complexity and interdependence of human needs requires a model of the economy with richer features than orthodox macro-economic models (THN 230-236). Rather than aggregates of income or capital, qualitative distinctions are called for: between the production of need satisfiers that eliminate shortfall inequality and surplus goods which do not, between the effective and ineffective transformation of need satisfiers into need satisfactions within households and communities. And this is to leave out the production of a full range of capital goods – man-made, human, social, and natural – both substitutable and non-substitutable. (Conventional GDP does not even achieve the first requisite, having no distinction between need satisfiers and 'luxuries' or 'surplus goods'). Similar auditing is necessary of institutions providing for biological reproduction and care of children, the transmission and renewal of cultural understandings, and the exercise of political authority.

Thus a conception of human need imposes a more demanding audit of social institutions than does preference satisfaction theory. For wellbeing to be sustained over time, a rich nexus of qualitatively different, incommensurable institutions must be passed on to future generations (as Hodgson 2013 and others have argued).

Finally, in the spirit of Dewey's social intelligence and collective deliberation, need theory implies a requirement for cross-generational dialogue. In place of either total ignorance about future wellbeing or the imposition of current views about wellbeing on future generations, we need to recognise that there can be 'an ongoing dialogue about the nature of the good life that crosses generations' (O'Neill 2014). Of course that is impossible with distant generations, but to think one

¹⁴ But this does not entail, as he writes in the previous sentence, 'each generation to pass on a bundle of incommensurable *goods* that is disaggregated across the different dimensions of human functioning'. This is to move too quickly from needs to satisfiers, without passing through USCs.

generation ahead is conceivable and sufficient: the process can then be repeated by the next generation, and so on. After all, following the rapid growth of life expectancy, four generations commonly coexist in societies today, and it is not impossible to reason about the needs of the next. A variety of institutions are emerging to represent the interests of near-future generations, such as Finland's Committee for the Future and Hungary's Parliamentary Commissioner for Future Generations (Coote WHO).

Needs and the capabilities approach

I turn now to compare the needs approach with the capabilities approach. As first defined by Amartya Sen, the idea of human capabilities provides a way of conceiving wellbeing alternative to both the orthodox opulence and utility approaches. Instead it conceives wellbeing in terms of the substantive freedoms and opportunities that people possess. Expanding freedom is desirable for at least three reasons: it is intrinsically desirable, it is instrumentally important in enabling the attainment of other desired ends, and it can play a constructive role in moulding these desired ends (Sen, 1999; Alkire 2002). But capability rests on a prior conception, *functionings*: 'an achievement of a person: what she or he manages to do or to be' (Sen 1985: 12). Elsewhere Sen writes that functionings 'constitute a person's being'. Since some (not all) of these functionings are 'intrinsically valuable' they amount to states of *well-being* (Sen 1992: 4–7). A person's capability set then represents all the combinations of functionings that are feasible to a person – that she could choose.

The capability approach has mounted a powerful challenge to orthodox welfare economics, has helped to establish a more rounded conception of the human person than *Homo economicus*, and has founded the only globally accepted alternative metric to GDP so far – the Human Development Index. Furthermore it shares several common features with the needs approach advocated here. They include (Sen 2009: chs 11-13):

- A rejection of utility/happiness, resources, and crude 'basic physiological needs' approaches
- A recognition of the complexity of human lives and the plurality and non-commensurability of needs/functionings
- A recognition that interpersonal comparisons of wellbeing are essential and not impossible
- A critique of 'unexamined sentiments' and an advocacy of reflective and public reasoning
- A conception of obligations to others.

With so much in common, what is to be gained by insisting on the needs approach? There are two fundamental problems with the capabilities alternative: first, there appears to be no way of identifying *basic universal* functionings and capabilities, and second, capabilities are extremely difficult to operationalise. Though the second is less fundamental, I start with this. The capability set of a person includes not only the opportunities to have and to be that people actually choose but also the near-infinite counterfactual opportunities that were open to them that they did not choose. Rawls' (1999) regarded the capability approach as too 'informationally demanding' and others have echoed this criticism. One response to this is to argue that chosen functionings can act as proxies for capabilities: one's health status can act as a proxy for one's substantive freedom and opportunity to

be healthy. However, since the list of potential functionings that people 'have reason to value' is almost endless (to be a good parent, to play football, to make lots of money), this leads back to subjective choice, unless discriminations are made between different functionings.

Yet the approach provides no means for identifying *basic* functionings common to a group of people let alone to all people. Sen's oeuvre provides examples of significant functionings but in an unsystematic way. They include being happy, being able to choose, having good health, being adequately fed and sheltered, having self-respect, being able to appear in public without shame, and taking part in the life of the community. Though we may well value all these things, it is a rather strange list. It embraces subjective states (being happy) and objective states (being adequately fed), and culturally generalisable conditions (having good health) alongside specifically liberal values (being able to choose). It is not self-evident that all these are 'intrinsically' significant in defining well-being. Sen famously rejects the search for, and lists of, universal valued functionings. Yet without such a list, achieved human functionings cannot be compared across radically different cultures or across time.¹⁵

Nussbaum, as we have seen, does argue for the universalisability of human functional capabilities and is content to identify these in a cross-cultural way. But to justify this, in her later book, *Frontiers of Justice*, she relies heavily on the language of need: 'human need is a relatively stable matter, and thus there is some hope that we can give an account of basic human needs that will remain reasonably constant over time... the idea of what human beings need for fully human living is among the most vivid intuitive ideas we share' (Nussbaum 2006: 278, 279). Gasper (2005, 2008) and Brock conclude that the capability approach is then derivative of the need approach. 'The notion of need is a valuable member of the team of concepts widely used in discussions of global justice, both in the capabilities and the human rights approaches. The case for these is often built on the more fundamental concept of needs' (Brock 2009: 73-4).

The needs approach also addresses more directly issues of sustainability and intergenerational comparability, topics rarely addressed within the capability approach. Sen (2009: 250) recognises the importance of the Brundtland definition but contends that its reliance on human needs is insufficiently 'capacious'. 'Certainly people do have needs, but they also have values and, in particular cherish their ability to reason, appraise, participate, choose and act. Seeing people only in terms of their needs may give us a rather meagre view of humanity'. This repeats an earlier criticism which this paper has been at pains to refute. But In rejecting needs, Sen is left with a very thin protection for future generations in a current world where present actions are wreaking environmental devastation and unconstrained consumption of natural resources. According to Lessmann (2011:58) 'The capability approach offers a theory that respects the freedom of choice of people whether they live today or in the future. Thus the CA does not prescribe a certain type of life for either the current or future generations and in consequence does not schedule sustaining a certain state of the world'. In contrast, Nussbaum's quite different, universalist approach ultimately

¹⁵ One intriguing solution proposed by Vizard (2006) is to derive a list of basic functionings from the international rights framework. This has the benefit of achieving some cross-national legitimacy, but it inverts the normal derivation of human rights from more foundational concepts of entitlements. Another solution is to add measures of autonomy alongside functionings to arrive at a composite measure of capability (Alkire 2005; Burchardt and Vizard 2011).

relies on the idea of basic human needs applicable now and in the future. The capability approach cannot 'dispense with the concept of needs, at any rate when applied to sustainable development' (Boulanger 2011: 99).

In a nutshell, the capability approach needs the underpinning of need theory.

Needs, morality and justice in a global and intergenerational context

Wants or preferences, we have noted, flatten moral distinctions between human situations. By contrast, human need and the criterion of serious harm bring moral judgements to centre-stage. This is recognised by a variety of authors. 'Claims of need make moral demands on agents that preferences do not' (O'Neill 2011). And in the language of capabilities: 'In certain core areas of human functioning a necessary condition of justice for a public political arrangement is that it delivers to citizens a certain basic level of capability. If people are systematically falling below the threshold in any of these core areas, this should be seen as a situation both unjust and tragic' (Nussbaum 2000, 71). This issue raises big questions, but a few notes must suffice here.

Since Rawls' *A Theory of Justice* (1971) it has been common to distinguish social institutions as a distinct domain of moral assessment, distinct, that is, from the actions of individuals or collectives. The former refers to arguments of justice, the latter to arguments of ethics (Pogge and Moellendorf 2008, Pogge and Horton 2008). I discuss them briefly in reverse order.

Ethical arguments for universal need satisfaction

Our argument in THN for moral obligations to meet the basic needs of people moves through three stages: meeting needs within a collectivity up to the level of a nation state, meeting global human needs, and meeting the needs of future generations. They can be summarised as follows (see THN chapter 6 for the full argument).

We begin from the argument that, since the membership of any social group implies obligations or duties, it also implies that the members are in fact able to perform these duties. The ascription of a duty logically entails that the bearer of the duty is entitled to the need satisfaction necessary to enable her or him to undertake that duty. It is inconsistent for a social group to lay responsibilities on some person without ensuring she has the wherewithal to discharge those responsibilities.

Where the social group is large, this entails similar obligations to strangers, whose unmet needs we do not directly witness and can do nothing individually to satisfy. This will require support for agencies that guarantee to meet the needs of strangers. This is a plausible definition of a 'welfare state': public rights or entitlements to the means to human welfare in general and to minimum standards of well-being in particular, independent of rights based on status, property or income. It assumes that only a state can guarantee strong entitlements of this sort to people, though this does not require that it directly provides the satisfiers.

This much is broadly accepted within countries across the developed world, though subject to constant critique and counter-movements. However, the commitment to meet the needs of strangers in other countries raises difficult new issues that cannot be addressed here. Suffice it to

say that the universality of human need strongly underpins obligations to ameliorate serious harm across the globe. In our inherently interconnected world, such a commitment to meet the needs of strangers and to support the necessary welfare structures cannot stop at the arbitrary borders of any particular nation state. It lends powerful support to contemporary ideas of cosmopolitanism, which sees the entire world as a potential moral and political community (Held 2010). To some this sounds utopian, but it is lent some legitimacy and practicality by the system of international rights legislation and implementation in the contemporary world.

Finally, it follows that we also have obligations to protect future generations against serious harm, if such harms can be reasonably predicted (Shue 2005). We have duties to ensure that the global life support system is not so damaged that it threatens the basic needs or USCs of future peoples, for example their nutritional or health needs. This typically raises difficult questions given that future generations are unable to reciprocate the duties required of the present. However, the idea of universal human needs provides two supporting arguments. First, we have obligations to meet the needs of our children and grandchildren within the overlapping (four) generation nature of society discussed above. Second, their wellbeing will be severely compromised if they live in a world where their neighbours, fellow citizens and unknown global strangers suffer profound harm (see also THN ch.7).

Justice arguments for universal need satisfaction

As for many others, our starting point is Rawls' theory of justice, which will not be rehearsed here. In pursuing a thin theory of the good he does not discuss basic human needs and the extent to which their satisfaction is necessary for achieving his two principles of justice.¹⁶ Or rather, he does not, except for a remarkable passage in his 1993 article, where he writes 'the first principle covering the equal basic rights and liberties may easily be preceded by a lexically prior principle requiring that citizens' basic needs be met, at least insofar as their being met is necessary for citizens to understand and to be able fruitfully to exercise [their] rights and liberties. Certainly any such principle must be assumed in applying the first principle' (Rawls 1993: 7). He did not pursue this thought, but others have done.

Thus for example, Pogge argues: 'If the account of social primary goods is to reflect a plausible notion of human needs then it cannot deny the fundamental role basic social and economic needs actually play in a human life... The first principle would then require that an institutional scheme should, if feasible, guarantee to every participant sufficient socio-economic goods for meeting the basic social and economic needs of a normal human person participating in the relevant social system... (these are) the standard basic socio-economic needs within some social system' (Pogge, 1989: 133,143). In a related way, we argue that the principle of justice concerns the right to basic need satisfaction; and go on to advocate the equal prioritisation of rights to basic need satisfaction (THN 132–4). More recently, Wolf has gone further and concluded that 'meeting people's basic needs should be the *first* priority of justice' (Wolf 2009: 355).

This has implications for the extension of Rawlsian justice theory to peoples beyond the (welfare) state and to future generations. It is well known that Rawls (1993) drew back from extending the veil

¹⁶ First, equal basic rights and liberties; second, the difference principle, that socially inequality is tolerated only to the extent that it benefits the least well off in society, together with equality of opportunity (Rawls 1971: 63, 538-9)

of ignorance beyond the nation state and encountered grave problems in extending it to future generations. However Brock (2009) and Wolf (2009) among others challenge this (cf. Caney 2005). In extending it to these domains they question his key distributive claim – the difference principle – and reintroduce basic human needs. Brock asserts that, behind the veil of ignorance, negotiators would choose not the maximisation of the income of the worst off, but maximising average income alongside the provision of a needs-based minimum floor.¹⁷ Brock argues that this provides a more sound normative and political foundation with which to extend social justice arguments to the global sphere.

Wolf, as we have seen, also favours and prioritises a needs principle and asserts that it must be generation-neutral. This results he argues in a principle of *moderate sufficiency*: that people be provided with a sufficient minimum as first principle of justice. Applied to intergenerational justice it results in a similar cosmopolitan conclusion, in effect substantiating the Brundtland Report: ‘Such a principle implies a strict limit on the kinds of intergenerational trade-offs justice will permit when the interests of present and future persons are in conflict. .. Thus it will be impermissible to promote the less basic interests of members of the present generation if this would compromise the needs of future generations’ (Wolf 2009: 367). Future human needs take precedence over present wants. This is similar to an earlier argument by Dobson: ‘The futurity that is central to all conceptions of sustainability is represented by the way in which future generation human needs take precedence over present generation human wants. It would be odd for those who argue for the sustaining of ecological processes to put the wants of the present generation of human beings (which might threaten those processes) ahead of the needs of future generations of human beings (which depend upon them)’ (Dobson 1998:46).

These arguments can be applied to threats from climate change. ‘Since protection from harm is a matter of basic need, and since significant climate mitigation can be accomplished without compromising the *needs* of present persons, climate policy is an urgent priority of justice... Where our present activities are not necessary for satisfaction of present fundamental needs, and put at risk the basic needs of future generations, then they are unjust’ (Wolf 2009:373). In foreseeable scenarios they may threaten survival itself (for a full discussion see Gosseries and Meyer 2009). Such arguments stand or fall according to whether there is a secure idea of what human needs are. That is what this paper has sought to provide.¹⁸

Conclusion

The Brundtland Commission’s near-hegemonic definition of sustainable development, with which we began, relies on a robust and coherent account of what human needs are. It would make no

¹⁷ Brock, ch. 3.1. This is backed by empirical evidence from an extensive series of experiments conducted by Frohlich and Oppenheimer (1992) which found after discursive negotiation that only 1% of participants supported a difference principle but 78% supported a floor constraint principle.

¹⁸ The foregoing arguments assume that what matters is maintaining or improving future human welfare. They recognise the *instrumental* role played by large-scale ecological processes, such as climate and biodiversity, and the critical limits these impose on human wellbeing. But they do not recognise an *intrinsic* value of Nature, which might imply giving priority to nonhuman needs over human needs, now or in the future (Dobson 1998).

sense to substitute the term 'preferences' or 'happiness' for needs in their definition, and 'capabilities' are fundamentally unspecific. Thus one would imagine that the Brundtland Commission and the numerous papers citing it would at least define the term 'needs' and engage with the concept. But on the whole this has not happened. It is this gap which this paper seeks to fill. (A similar gap in social policy prompted the writing of our earlier book, *A Theory of Human Need*: everywhere welfare policy was justified in terms of 'need' but nowhere was it analysed, unless to be denigrated).

This paper draws on the earlier work, but engages with subsequent critiques, analysis and new formulations of need theory - and parallel discussions of wellbeing, notably within the capabilities school. Its key conclusion is that the preference satisfaction theory of wellbeing is hopelessly inadequate to deal with the global and intergenerational dilemmas posed by climate change and global inequality. Happiness has even less to contribute. This paper adds to those critiques but provides the beginnings of an alternative.

This conclusion summarises three basic strengths of need theory.

First, because human needs are conceived to be universal to all peoples, a sound theory of need permits interpersonal comparisons of wellbeing, including comparisons between radically different cultures and time periods. It is informationally more rewarding than alternative conceptions, encompassing both individual and population-level evaluations of wellbeing. It provides a more secure theoretical foundation for the numerous current empirical efforts to devise non-monetary indicators of wellbeing, pursued by numerous organisations including the OECD, EU and UN (Whitby et al 2014).

Second, it provides a critique of 'unexamined sentiments' and an advocacy of reflective and public reasoning. This it shares with the capabilities approach, but it has the advantage that human needs are more 'vividly intuitive'. It the idea of common human needs challenges current obeisance to unregulated markets as allocative mechanisms (and indeed simple majoritarian decision-making). Needs provide a route to questioning the idea of 'consumer sovereignty' and the justice of current social structures.

Third, it supports strong moral obligations and claims to meet basic needs and an argument for prioritising them over want or preferences. It thus lends powerful support for the pursuit of both social and intergenerational justice: the twin and interlinked global challenges according to both Brundtland and Stern. This is critical to mitigating climate change in a context of egregious global inequality. A sound concept of universal basic human needs is now more essential than ever to conceive of alternative policies to simultaneously sustain the planet and human wellbeing.

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