

Chapter 14

Lists and thresholds: comparing the Doyal-Gough theory of human need with Nussbaum's capabilities approachⁱ

Ian Gough

Introduction

Martha Nussbaum's *Women and Human Development: The Capabilities Approach* (2000 – hereafter WHD) remains an eloquent, rigorous and passionate statement of her views on human capabilities. It goes further than her earlier work in relating these to the ethics and politics of development. It applies the approach directly and with insight to the predicament faced by women across the developing world, notably in two chapters on religion and care.

This paper critically discusses Nussbaum's capabilities approach and compares it with the needs perspective developed in the earlier book by Len Doyal and myself, *A Theory of Human Need* (1991 – hereafter THN). Though there are remarkable similarities between the two, both were written independently. When completing our book, published in 1991, we were unaware of Nussbaum's earliest article on this theme, *Nature, function and capability: Aristotle on political distribution* published in 1988, whereas her subsequent work was written in ignorance of our own contribution.

The publication of WHD provides an opportunity to compare and evaluate our theory of human need with her first fully developed perspective on human capabilities. However, this paper limits itself to the very specific issue of 'lists' and 'thresholds'. Unlike Sen, Nussbaum explicitly provides a comprehensive list of 'central human functional capabilities' which we can compare with our hierarchical model of human needs. Many other important issues related to her self-proclaimed neo-Aristotelian approach are ignored, and even within this remit much must be omitted.

Throughout I use *Women and Human Development: The Capabilities Approach* as the core text to illustrate Nussbaum's latest and most developed thinking on this topic. This work developed out of the 1998 Seeley lectures at the University of Cambridge and marks a clear advance on her earlier work on capabilities (Nussbaum 1992, 1993, 1995a, 1995b). According to Gasper (2001) it reflects among other things her move to the Chair of Law and Ethics at Chicago and two research visits to India in 1997 and 1998. This focus means that I ignore her important later work, such as *Frontiers of Justice* (2006).

In the first part of this paper I identify the common project which underlies both Nussbaum's and our own work: to clarify and defend those universal human interests which alone can underpin an emancipatory and effective political programme for all women and men. The next two sections then set out in some detail our different taxonomies of capabilities and needs, and the thinking behind them. In the fourth section, the two approaches are compared in terms of their components, derivation and thresholds. On the basis of this three-way comparison, I conclude that our theory and operationalisation of human need is in certain respects theoretically more robust and empirically more realistic than Nussbaum's better-known approach.

Arguments for universals

Though Nussbaum uses different terms from us – '*capabilities*' versus '*needs*' – we have much in common, notably the goal of developing a genuinely universal argument for human emancipation.

Though her book explicitly focuses on women's capabilities and options, and engages with the specific obstacles faced by most women and girls on the planet, this is at all times embedded in a theory which applies equally to men and boys. In particular, the two books argue the following three positions.

1. A 'fully universal' conception of capabilities/ needs

Taking for granted a world where many women lack support for fundamental functions of a human life, and where most women have fewer capabilities than men, her goal is to develop a 'universalist

feminism' (WHD 7), based on 'the principle of each person as an end' (WHD 56). The philosophical underpinning for this universalism is the idea of human *functionings*, one respect among several where her work inter-relates with that of Amartya Sen. Sen defines a functioning as 'an achievement of a person: what she or he manages to do or to be' (1985: 12). Elsewhere he 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). *Capabilities* then refer to the set of functionings that is feasible to that person – that she could choose.

However, Nussbaum, whose work in this area began independently of Sen, is more direct in addressing the issues of cross-cultural comparison and evaluation which this entails:

'An international feminism that is going to have any bite quickly gets involved in making normative recommendations that cross boundaries of culture, nation, religion, race and class. It will therefore need to find descriptive and normative concept adequate to that task. I shall argue that certain universal norms of human capability should be central for political purposes in thinking about basic political principles that can provide the underpinning for a set of constitutional guarantees in all nations. I shall also argue that these norms are legitimately used in making comparisons across nations, asking how well they are doing relative to one another in promoting human quality of life' (WHD 34–35).

'The account we search for should preserve liberties and opportunities for each and every person, taken one by one, respecting each of them as an end, rather than simply as the agent or supporter of the ends of others' (WHD 55). This 'focus on the individual person as such requires no particular metaphysical tradition ... It arises naturally from the recognition that each person has just one life to live' (WHD 56).ⁱⁱ

This compares with our own argument:

'Health and autonomy are basic needs which [all] humans must satisfy in order to avoid the serious harm of fundamentally impaired participation in their form of life... It is possible in

principle to compare levels of basic need-satisfaction in these terms not only within but also between cultures' (THN 73–74).

To quote Soper (1993b 74): 'What [Doyal and Gough's] work shows, they would argue, is that you can chart basic need satisfaction for "objective" welfare without either embracing relativism or operating at such a level of generality that the pertinence of the theory for specific problems concerning social policy is sacrificed'.

2. A critique of cultural relativism

Nussbaum develops an explicit critique of relativismⁱⁱⁱ by addressing three 'apparently respectable' arguments against universalism: the argument from culture, the argument from the good of diversity, and the argument from paternalism (WHD 41–50). We can drastically summarise her three counter-arguments as follows. First, real cultures are always dynamic and evolving: 'People are resourceful borrowers of ideas' (WHD 48). She attacks a common critique of universal values based on the dichotomy between 'western' and 'non-western' values. This polarisation she argues simplifies the notion of tradition and underplays ongoing conflicts within cultural systems (). Second, the 'argument for the good of diversity' is fine so long as cultural practices do not harm people. But since some practices clearly do, this 'objection does not undermine the search for universal values, it requires it' (WHD 50). Not all diversities are worth preserving and only diversities compatible with human dignity and other basic values should be respected. Third, relativist critiques of the 'paternalism' endorsed at some level by universal approaches is a double-edged sword. Many traditional value systems are paternalist in the strict sense of the word. More fundamentally, a commitment to respecting people's choices endorses at least one universal value, that of having the opportunity to think and choose for oneself (WHD 51). To preserve these fundamental capabilities may require a public authority to override immediate interests and preferences.

We develop an explicit but different critique of cultural relativism. First, we argue that all contemporary forms of relativism are internally inconsistent. Variants of relativism can be found in

exponents of orthodox economics, liberalism, Marxism, critics of cultural imperialism, theories of radical democracy and phenomenological sociology; but 'all have attempted to denounce universal standards of evaluation with one hand only to employ them to endorse some favoured view of the world with the other (THN 33). Second, we address and rebut specific claims that conceptions of *health* (one of our basic needs) are internal to cultural systems of thought, thus denying any rational choice between them. We tackle this by considering persons from different cultures suffering from (what the biomedical model terms) TB, and then go on to the more difficult case of severe depression (THN 57–59, 63–64, 180–81). Even in the case of depression, sufferers exhibit common symptoms across widely different cultures, such as hopelessness, breathlessness, lack of energy, and feelings of inadequacy. These common symptoms lead to the same kinds of disability across cultures, notwithstanding divergent and indeed incompatible ways of interpreting them.

3. An argument that the existence of needs/ capabilities entails strong moral claims to meet needs / develop capabilities.

Nussbaum's aim is 'to provide the philosophical underpinning for an account of basic constitutional principles that should be respected and implemented by the governments of all nations, as a bare minimum of what respect for human dignity requires' (WHD 5).

'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' (WHD 71).

The language of rights permits us to draw strong normative conclusions from the fact of basic capabilities (WHD 100). In so doing, Nussbaum differs from Sen in regarding all capabilities as equally fundamental and rejecting Rawls' argument for the priority of liberty (WHD 12).

This is similar to our statement at the start of THN (2): 'It is difficult to see how political movements which espouse the improvement of human welfare can fail to endorse the following related beliefs:

1. Humans can be *seriously harmed* by alterable social circumstances, which can give rise to *profound suffering*.
2. Social *justice* exists in inverse proportion to serious harm and suffering...'

However, we go further than Nussbaum in relating such rights to corresponding duties. Our argument in brief is as follows (see THN [chapter 6](#) for the full argument):

1. The membership of any social group implies obligations or duties.
2. To ascribe duties to someone presupposes that they are in fact able to perform these duties.
3. The ascription of a duty thus 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.
4. Where the social group is large, this entails similar obligations to strangers, whose 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 property or income. Only the state can guarantee strong entitlements to people of this sort, though this does not require that it directly provides the satisfiers. It is at this stage, that we also argue for the equal prioritisation of rights to basic need satisfaction and reject Rawls' lexical ordering (THN 132–4).^{iv}

It is clear that the philosophical and political agenda underlying our two approaches is to clarify and defend those universal human interests which underpin an emancipatory and effective political programme for all women and men. The differences that we now go on to outline should be seen as contrasting approaches to pursue a broadly common agenda.

Nussbaum on central human functional capabilities

A critical difference with Sen, claims Nussbaum, is that he has ‘never made a list of the central capabilities’ (WHD 13).^v Nussbaum tackles this head-on and presents her own ‘current list’ of ten ‘central human functional capabilities’ (CHFCs), reproduced elsewhere in this volume. This difference reflects a more fundamental disagreement about the possibility of arguing rationally about the nature of the good. Sen focuses on processes, procedures and deliberative democracy whereas Nussbaum emphasises the role of her list as an evaluative metric or heuristic device to describe the mechanisms for settling central capabilities.^{vi}

Of her list of CHFCs, Nussbaum identifies two, *practical reason* and *affiliation*, as ‘architectonic’ because ‘they both organize and suffuse all the others, making their pursuit truly human’ (WHD 82). Elsewhere she recognises *bodily integrity* as of special importance (WHD 95). While the ten general categories are constant over time, the specific descriptions of them will change with historical circumstances; thus ‘literacy is a concrete specification for the modern world of a more general capability’. Put more strongly, ‘part of the idea of the list is its multiple realisability: its members can be more concretely specified in accordance with local beliefs and circumstances’ (WHD 77). Furthermore, it ‘is, emphatically, a list of separate components. We cannot satisfy the need for one of them by giving a larger amount of another one. All are of central importance and all are distinct in quality’ (WHD 81).

Nussbaum first derived this list using a self-proclaimed ‘neo-Aristotelian’ approach. Following the method in *Nicomachean Ethics* she identified ‘spheres of human experience that figure in more or less any human life, and in which more or less any human being will have to make *some* choices rather than others’ and to each of which there is a corresponding virtue (Nussbaum 1993: 245). This generated a slightly varying list of 10–11 spheres of experience. The approach identified ‘a *core idea* [my italics] of the human being as a dignified free being who shapes his or her own life in cooperation and reciprocity with others... A life that is really human is one that is shaped throughout by these human powers of practical reason and sociability’ (WHD 72). This distinctive

perspective generated a 'thick', richer conception of well-being compared with Sen's more neo-Kantian approach.

Following her adoption of political liberalism in the 1990s she developed a more normative or Rawlsian procedure in WHD (reiterated in her new work, Nussbaum 2006, ch.1). The central capabilities are first identified in an approach informed by an intuitive idea of a life that is worthy of human dignity. These are then presented as the source of political principles for a liberal, pluralistic society, free of any metaphysical grounding. As a result the central capabilities can become the object of an overlapping consensus among people who may otherwise have very different conceptions of the good. In WHD 'the methodology that has been used to modify the list [draws] both on the results of cross-cultural academic discussion and on discussions in women's groups themselves' (WHD 151). 'Thus it already represents what it proposes: a type of *overlapping consensus*' (WHD 76).^{vii} The above list is notably the result of discussions in India and elsewhere. 'In this sense the list remains open-ended and humble' (WHD 77). The argument from principle at stage one is 'envisaged as a first step in the process of reaching toward such a *reflective equilibrium*' (WHD 151, our italics). This liberal reformulation is attractive in principle, but gives rise to some problems and tensions in practice, discussed below.

Doyal and Gough: a theory of human need

We develop a listing of needs with many points of convergence with the above. However it is constructed in a very different way. Our approach is *hierarchical* moving from universal goals, through basic needs to intermediate needs, as summarised in Figure 1 of THN.^{viii} The following summarises our argument in THN, predominantly [chapters 4](#) and [8](#).

Step 1. Normative/ ethical reasoning: 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. We define serious harm as fundamental disablement in the pursuit of one's vision of the good. It is not the same as subjective feelings like anxiety or unhappiness. Another way of describing such harm is as an impediment to successful social *participation*. Whatever the time, place and cultural group we grow up and live in, we act in it to some extent. We argue that we build a self-conception of our own capabilities through interacting with and learning from others. This is an essential feature of our human nature. It follows that participation in some form of life without serious arbitrary limitations is 'our most basic human interest' (THN 55).

Step 2. Basic needs: health and autonomy

THN (52–54) develops a neo-Kantian argument in determining universal goals and basic needs:

'Although [Kant] was not directly concerned with the character of human need, he did articulate many concepts and arguments relevant to its theorisation. Kant showed that for individuals to act and to be responsible they must have both the physical and mental capacity to do so: at the very least a body which is alive and which is governed by all of the relevant causal processes and the mental competence to deliberate and to choose. Let us identify this latter capacity for choice with the existence of the most basic level of personal 'autonomy' ... To be autonomous in this minimal sense is to have the ability to make informed choices about what should be done and how to go about doing it. This entails being able to formulate aims, and beliefs about how to achieve them, along with the ability to evaluate the success of beliefs in the light of empirical evidence... It makes sense, therefore, to claim that *since physical survival and personal autonomy are the conditions for any individual action in any culture, they constitute the most basic human needs – those which must be satisfied to some degree before actors can participate in their form of life to achieve any other valued goals*'.^{ix}

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. Generally speaking, the existence of even minimal levels of autonomy will entail the following:

- a) that actors have the intellectual capacity for the formulation of aims and beliefs common to their form of life;
- b) that actors have enough confidence to want to act and thus to participate in some form of social life;
- c) that actors sometimes actually do so through consistently formulating aims and beliefs and communicating with others about them;
- d) that actors perceive their actions as having been done by them and not by someone else;
- e) that actors are able to understand the empirical constraints on the success of their actions;
- f) that actors are capable of taking responsibility for what they do.

We go on to argue that this aspect of autonomy should at its most basic level be understood negatively – with reference to the serious objective disablement which results when one or more of these characteristics is absent. Mental health is then the obverse of this – ‘practical rationality and responsibility’ (THN 62). We address, though by no means systematically, some of the difficult issues of measurement this poses, citing evidence on the experiences and symptoms of mental illness across cultures. We conclude that, despite cultural variations in some features of, say, depression, 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).

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. This requires *teachers* and a form of teaching that is conducive to enquiry and further

learning. Third and last, autonomy of agency requires a range of *opportunities* to undertake socially significant activities. 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.

Lastly, we go on to recognise a higher-order level of autonomy, which we label *critical autonomy*. 'Critical autonomy entails 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. This is not to deny that oppressed people exercise extremely high levels of creative and critical deliberation throughout their lives. It is for this reason that we favour defining critical autonomy as the possession of freedom of agency and political freedom (THN 68).^x

Step 3. Satisfiers and 'Intermediate Needs': the role of codified knowledge

While the basic individual needs for physical health and autonomy are universal, most goods and services required to satisfy these needs are culturally variable. For example, the needs for food and shelter apply to all peoples, but there is a large variety of cuisines and forms of dwelling which can meet any given specification of nutrition and protection from the elements. Following Max-Neef (1989:19), we call all objects, activities and relationships which satisfy our basic needs '*satisfiers*'. Basic needs then are always universal but their satisfiers are often relative.^{xi} However, if this were all we could say, it would have little purchase on the issues of rights, morality and development that Nussbaum and we wish to address. Can a conceptual bridge be built to link basic needs and specific satisfiers? We contend that the notion of '*universal satisfier characteristics*' can fulfill that role.

This draws on Sen's (1985) analysis, following Lancaster, between commodities, characteristics and functionings. 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. We then distinguish within this set a subset of *universal satisfier characteristics*: those

characteristics of satisfiers which apply to *all* cultures. Universal satisfier characteristics 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. Similarly 'shelter from the elements' and 'protection from disease-carrying vectors' are two of the characteristics which all dwellings have in common (though to greatly varying degrees). The category of universal satisfier characteristics, or 'intermediate needs' for short, thus provides the crucial bridge between universal basic needs and socially relative satisfiers. They provide a foundation on which to erect 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).

We group these intermediate needs in the following eleven categories:

- Nutritional food and clean water
- Protective housing
- A non-hazardous work environment
- A non-hazardous physical environment
- Safe birth control and child-bearing
- Appropriate health care
- A secure childhood
- Significant primary relationships
- Physical security
- Economic security
- Appropriate education

Roughly speaking, the first six contribute to physical health and the last five to autonomy. The only criterion for inclusion in this list is whether or not any set of satisfier characteristics universally and positively contributes to physical health and autonomy. If it does then it is classified as an intermediate need. If something is not universally necessary for enhanced basic need satisfaction,

then it is not so classified, however widespread the commodity/ activity/ relationship may be. For example, 'sexual relationships' is not included in our list, because some people live healthy and autonomous lives without inter-personal sex.

This list of universal satisfier characteristic is derived from two principle *scientific* sources. First, there is the best available scientific/ technical knowledge articulating causal relationships between physical health or autonomy and other factors. 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 to determine the composition of intermediate needs. This knowledge changes and typically expands – today often at dizzying speeds – through time. We are comfortable to acknowledge that humans as a species have made and continue to make *progress* in their capacity to understand and satisfy their needs (THN 111). The concept of human need we develop is historically open to such continual improvements in understanding.

This approach must however be complemented by the appeal to the *experientially grounded* knowledge of people. If need satisfaction is to be optimised all groups must have the ability to participate in research into need satisfiers and to contribute to policy-making. Utilising Habermas, we argue that any rational and effective attempt to resolve disputes over 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 social policy formation* which values compromise, provided that it does not extend to the general character of basic human needs and rights' (THN 141).

Thus, 'our theory is essentially 'iterative': universal and objective needs can be shown to exist but the ongoing growth of knowledge continually modifies and improves our understanding of intermediate needs and how they can best be satisfied. The appropriate indicators of intermediate needs are continually open to question and improvement as a result of the growth of codified and

experientially-grounded knowledge (THN 168). The practical solution to the problem of relating these two types of knowledge may be achieved through various forms of focus groups, as we recognised when discussing the assessment of disability (THN 174–76) and poverty (THN 323, fn.5).

Step 4. Societal preconditions

Concerned lest our emphasis on autonomy suggests an individualised conception of human agency, we spend [chapter 5](#) of our book expounding the social dimension of autonomy. Following Braybrooke (1987: 48–50), we identify four societal preconditions – production, reproduction, cultural transmission and political authority – which have to be satisfied by all collectives if they are to survive and flourish over long periods of time (THN 80–90). Yet, though individual needs can never be satisfied independently of the social environment, we continue to insist that they must be conceptualised independently of any social environment. It is on this basis that we go to identify positive and negative freedoms as essential pre-requisites for the exercise of critical autonomy.^{xii}

Aside from these societal preconditions, we may summarise our approach in two steps (cf Gasper 1996):

- (a) First, neo-Kantian reasoning is deployed to derive two universal basic needs: health and autonomy. At this stage, normative/ethical theories are deployed to determine which prerequisites carry a priority status.
- (b) Codified and experiential knowledge is then drawn on to provide, at any point in time, the best available evidence on universal satisfier characteristics. This stage uses instrumental, positive analysis of the prerequisites for various types and levels of capacity or functioning (Gasper 1996: 12).

Comparing and evaluating the two approaches

I will compare our two approaches under the following headings: components, derivation, and levels/thresholds. In the process I begin to evaluate the two and offer some defence of our own approach.

Components

Table 14.1 brings these two lists together within the framework of our hierarchical model.

Insert Table 14.1 here

In THN we caution that our list, like all taxonomies, is in one sense arbitrary (THN 159). The groups are ‘verbal wrappings’ or ‘labels’ designed to demarcate one collection of characteristics from another. Moreover, the word-labels used will be ambiguous – they will ‘not contain or exhaust the meaning of the need identified’. Ambiguity can be reduced by increasing the numbers of characteristics or ‘need categories’. Yet the larger the set, the greater the problems in comprehending the totality of human needs. We believe that this dilemma is encountered by Nussbaum too, and indeed by anyone engaged in identifying components of well-being. The two lists must be compared bearing this in mind.

The table shows that there is considerable overlap between the two lists, notwithstanding differences in ‘labels’. This overlap is to be expected and is a notable finding of other comparisons of components of well-being using a wider range of lists.^{xiii} Moreover, it is interesting that of the three CHFCs that Nussbaum identifies as central, *affiliation* is similar to our central goal of *participation*, whereas *bodily integrity* and *practical reason* are closely related to our two basic needs of *health* and *autonomy*. This is an encouraging indication of the close parallels between our two projects. Yet, Nussbaum does not *theoretically* privilege these three components, as we do.

Another difference is that Nussbaum’s CHFCs often include within them their societal preconditions. For example, after the component Affiliation A is introduced, there follows in parentheses: ‘Protecting this capability means protecting institutions that constitute and nourish such forms of affiliation, and also protecting the freedom of assembly and political speech’ (WHD 79). Is it appropriate to include welfare and political rights of this sort within a list of human capabilities?^{xiv} We believe that our strict distinction between, in a different language, human needs and the societal preconditions for their realization is more helpful. The former are attributes of

individuals, the latter of collectivities. This builds on our distinction between basic autonomy or agency and critical autonomy, the latter served by political rights and freedoms. The intermingling of these within Nussbaum's list reflects the normative political conception and derivation of basic capabilities, at least since the early 1990s.

There are other differences. On the one hand, there are CHFCs which do not appear in our matrix of needs: certain aspects of Nussbaum's 'affiliation' do not appear to be covered by our universal goal of minimally disabled participation in one's social form of life. Similarly, 'play' and 'the ability to live in a fruitful relationship with animals and the world of nature' are absent. Nussbaum comments frankly on the present lack of consensus the last achieved in her project (WHD 157). In which case, why include it? It is incredible to consider that this component ranks on a par with bodily integrity or practical reason.^{xv}

On the other hand, using the concept of universal satisfier characteristics we can identify more instrumental need components which are also universal but which do not figure in Nussbaum's list: for example, the intermediate needs for a non-hazardous environment and for appropriate health care. Our second-order list enables us to get closer to the real basic unmet needs confronting poor peoples across the globe.^{xvi}

Derivation

We clearly adopt very different approaches in constructing and deriving the two lists. Nussbaum claims that hers is two-stage and iterative: a core philosophical idea derived from Aristotle is examined in cross-cultural dialogues, revised and resubmitted in an iterative fashion. Putting aside for the moment the question whether this accurately describes the derivation of her list, let me examine some of the implications.

First, does not the Aristotelian stance ('the noble shines through') conflict with the plurality and humility of the consensual method? In particular, how can a reliance on the preferences of actors at the second stage be squared with the 'independently justified list of substantive goods' at

the first stage? Does not the way that social contexts shape preferences and the way that individuals adapt their preferences to social imperatives militate against the likelihood of convergence between the two stages?^{xvii}

Second, and following on from this, if the method is genuinely open-ended, what are the limits to the list? Nussbaum claims at the end of her book that her approach is intended as ‘the systematization and theorization of thoughts that women are pursuing all over the world, when they ask how their lives might be improved’ (WHD 301). For Garagarella (2001) this is too sweeping a conclusion, given that her country, the U.S., does not represent the whole of the Western world, and India, her case study, does not represent the rest of the world. When 200-odd other countries are included in the process, not to speak of countless other sub-cultures and language groups, what is to stop the list of CHFCs expanding and dissipating?

Nussbaum is aware of these concerns, and in [Chapter 2](#) of WHD (titled *Adaptive preferences and women’s options*) she presents an insightful analysis of adaptive preferences and the obstacles these pose to securing agreement on minimum standards let alone conditions for a flourishing life. This fascinating chapter deserves more attention than we can offer here, but some comments are in order to illustrate how she conceives of reconciling wants and needs.

Nussbaum argues against two extreme positions, subjective welfarism and Platonism, and develops her thinking on the general Aristotelian concept of ‘desire’. Contrasting the concepts of desire and preference, she asks what is the contribution of desire in the process of reaching such a ‘reflective equilibrium’ (WHD 151)? Her answer is that desire plays two roles: epistemic and political. First, ‘when people are respected as equals, and free from intimidation, and able to learn about the world, and secure against desperate want, their judgments about the core of a political conception are likely to be more reliable than judgments formed under the pressure of ignorance and fear and desperate need’ (WHD 152). Second, desire plays an ancillary role in justifying and buttressing the political support necessary for a reflective equilibrium to be sustained. She claims that once people

learn new capabilities, they don't want to go back. Even when women choose to return to traditional lives, such as a return to veiling, this is almost always 'a change in their mode of *functioning*, not in their level of political *capability* as citizens' (WHD 153). In other words they rarely insist, once experiencing the choice, that all women should be forced to veil. Nussbaum suggests that the epistemological and political roles of desire apply more strongly in subsequent generations.

Thus desires, in contrast to preferences, are not totally adaptive, for two reasons. On the one hand, 'the human personality has a structure that is at least to some extent independent of culture' (WHD 155) – a nod towards some universal conception of human capacities. On the other hand, 'by promoting education, equal respect, the integrity of the person, and so forth, we are also indirectly shaping desires' (WHD 161). Thus desire informed by (rarely achieved) consciousness-raising can play a subsidiary and confirmatory role in political justification. This suggests that there exists a potential bridge between the normative and the consensual stages in the shaping of an agreed list of human capabilities, though this must always be subsidiary to independent normative argument.^{xviii}

Of course, professional doomsters like John Gray decry as utopian any attempt to achieve consensus and coordinated action around eradicating poverty, let alone around broader emancipation. 'The combination of rising human numbers, dwindling natural resources and spreading weapons of mass destruction is more likely to unleash wars of unprecedented savagery. If we can bring ourselves to look clearly at this prospect, we will lay aside utopian fantasies of global co-operation. We will see our task as staving off disaster from day to day' (Gray, *New Statesman* 24.6.2002: 29). This benighted vision is unconvincing as well as morally abhorrent, but it should caution against the over-optimistic alternative that wants and needs can be easily reconciled.^{xix}

More importantly, Nussbaum has not in practice utilised the method she advocates. She has made some revisions to her earlier approach in response to discussions in India, the work of Martha

Chen (1986) and other writers. However, this does not amount to systematically confronting her conception of the good with the values and experiences of the poor.^{xx}

Our goal in developing a different, hierarchical approach was similar to Nussbaum's: to recognize cultural variety but to avoid subordinating the identification of needs to it. Our approach was, as we have seen, to develop a two-stage procedure. The first stage uses neo-Kantian arguments to develop a *thin* theory of human need. When focusing on health and autonomy of agency it is explicitly designed to fit all human societies. It deliberately seeks, so to speak, the lowest common denominator of universalisable preconditions for human action and social participation. In this way, we would claim, the potential for cross-cultural consensus is heightened. At the second stage, we appeal to collective knowledge, from both the natural and the social sciences, to identify the pre-requisites for healthy and autonomous persons across different cultures (cf the remarks in the first section above concerning cross-cultural agreement on health). Against much post-modern scepticism we retain a belief in the potential of the scientific community to approximate an (ever-moving) consensus on the pre-requisites for human flourishing.

Does not our approach risk the accusation of being paternalist? We believe not because we recognise the role of wide participation and experiential knowledge in understanding needs and need satisfiers. Drawing on Habermas' theorisation of communicative competence and the 'ideal speech situation', we stress that common rules of debate are required.^{xxi} 'Insofar as participants in such debates conform to the above standards, Habermas contends that the most rational solutions ... will be those which achieve the widest consensus' (THN 123). In the real world of dominant systems and interests, this entails at the least that 'the codified knowledge of professional must confront the rationalised life-world – the 'experientially-grounded knowledge' – which ordinary citizens develop through such self-reflection' (THN 125). Notwithstanding her rejection of Habermas' proceduralism, there are some intriguing parallels with Nussbaum here; for example, the idea of rationality as consensus and the assumption of the goodness of ordinary people.

However, what is underplayed in our approach is Sen’s valuable distinction between functionings and capabilities. Nussbaum embraces this, as when she writes: ‘Where adult citizens are concerned, *capability* not *functioning* is the appropriate political goal’ (WHD 87). This permits universal goals to be identified yet individuals’ rights not to pursue them to be given due weight. Fasting is not the same as starving; nor is celibacy the same as enforced sexual abstinence. This enables her to argue for both civil/political and social /economic rights. (By contrast, children may require enforced protection of and stimulation of their capabilities, for example through compulsory education). The functioning – capability distinction would help us to diminish lingering charges of paternalism (see Gough 2000, ch.1).

Levels and thresholds

A third point of comparison between our two approaches concerns the scope of the universalisable interests, which underlie our list of CHFCs/needs. Both Nussbaum and we endorse a broad view of human flourishing *and* wish to focus on minimal standards. Thus, on the one hand, Nussbaum continually speaks of ‘a fully human life’, of ‘a life truly worthy of a human being’. In a similar vein we speak of ‘human liberation’, ‘human flourishing’, ‘critical autonomy’ as a basic need, and the right to ‘optimal fulfilment’ of basic needs. On the other hand, Nussbaum identifies a lower threshold level of capability, a basic social minimum which should be secured for all citizens (WHD 73, 75). Similarly, we focus much of our attention on a lower standard: on avoidance of serious harm and on minimally disabled uncritical participation in one’s form of life.^{xxii} Thus both works have a dual agenda:

	Nussbaum	Doyal and Gough
Minimal standard	Basic social minimum	Avoidance of serious harm
Broad human flourishing	Fully human life	Human liberation; optimal need fulfillment

Seizing on this, Gasper (1996) has criticised our own work for both 'over-reach' and 'parsimony'. 'Over-reach' because the original derivation of basic needs in terms of harm-avoidance is then used to do too much work. The issues raised by critical autonomy are wide-ranging and deserve different and stronger forms of defence. Similarly, claiming optimal fulfilment of health care needs raises severe problems of a moral, not just a resource allocation kind, in an age where medicine can keep elderly people alive at vast cost. 'Parsimony', because our single-minded focus on health and autonomy excludes all aspects of life, like sex and religion, which are not universally necessary for effective participation. This echoes Soper's (1993a: 119) description of our 'somewhat puritanical and limited' list of basic and intermediate needs.

Gasper concludes: 'Doyal and Gough (are) drawn towards a broader conception of needs than seems implied by a criterion of avoiding serious harm. They formalize this by the extension to include critical autonomy, and their theory then has two versions, narrower and broader... We should accept that there are various criteria possible in needs discourse, each of which may be appropriate for different purposes. For pursuing a consensual priority for minimum requirements for decency, a narrower picture of needs is more appropriate than when trying to ... prescribe for "human flourishing" or "the good life"... Both these major policy roles of needs analysis will be weakened by not clearly distinguishing between them' (Gasper 1996: 31–32).

This criticism is well taken. Towards the end of a long paper I merely offer two assertions and a comment in reply. First, the same verdict would seem to apply *a fortiori* to Nussbaum's conceptualisation of central human functional capabilities. Second, I believe that our distinction between autonomy of agency and critical autonomy provides a more rigorous foundation for our two-fold approach than Gasper claims.^{xxiii} Here, Sen's arguments for the value of 'unrestrained participation' in political and social activities help flesh out the meaning of critical autonomy and the broader agenda. The 'constructive' role of political freedom is necessary to comprehend and conceptualise economic needs, he argues: 'A proper understanding of what economic needs are – their content and their force – requires discussion and exchange' (Sen 1999: 153). This applies not

only to the myriad of decisions about need satisfiers, but to future, richer understandings of intermediate needs themselves.

Turning to the related and final issue of *thresholds*, I would claim that we go further than Nussbaum. While she promises to address this question, she delivers little, mainly because her politically liberal approach would leave the setting of minimum thresholds to national or local decision-making procedures. Our approach to the question of standards and thresholds (THN 159–64) is again hierarchical, but begins conceptually at Gasper’s highest level of human flourishing.

At the stage of *basic* needs, we endorse neither absolute minimum, nor culturally relevant standards, but an *optimum* standard. In line with the two levels of autonomy we identify two such levels: a participation optimum and a still higher, critical optimum. The latter comprises those levels of health and cognitive, emotional and social capacities which permit critical participation in one’s chosen form of life. In practice, however, we endorse as a practical measure of this ‘the most recent standards achieved by the social grouping with the highest overall standards of basic need-satisfaction’. We concluded that in the late-1980s, the best performing nation was Sweden. This also suggested a ‘constrained optimum’ standard for poorer countries: the highest achieved by countries at lower levels of development. We suggested these standard-setters were then Costa Rica for middle-income countries and Sri Lanka for poor nations. This could provide an empirical measure for assessing, for example, shortfalls in women’s capabilities in the developing world, but it hardly constitutes the independently-derived normative threshold with which we began.

Considering *intermediate* needs, we argue for a *minimum optimorum* or *minopt* threshold. This is the minimum quantity of any given intermediate need-satisfaction required to produce the optimum level of basic need-satisfaction. The underlying assumption here is that the relationship is asymptotic: additional increments of a satisfier characteristic generating decreasing increments of basic need satisfaction until at the minopt point no additional benefit is derived.

However, Soper and Wetherly criticise our basic need standard on related grounds. Soper contends that this standard may actually be too high, in that the extravagance of Swedish energy use and socio-economic institutions is not generalisable to all other peoples in the world or to future generations. Insofar as this is true, it is accommodated within our definition of constrained optimum. But this raises a difficult issue. We have narrowed our focus from a concern with the universal requirements for social participation to whatever is universalisable across time and place in practice (Soper, 1993a: 78). This raises more issues than can be dealt with here, but at the end of the day 'ought' must imply 'can'. If, due to past industrialism, population growth, environmental degradation and climate change we can achieve less than optimal generalisable satisfaction of basic needs, then so be it. We will be forever living in a world of constraint. Wetherly goes on to claim that this reintroduces relativism. The constrained optimum standard remains 'historically – and so socially, culturally – relative' (Wetherly, 1996: 58). But the 'and so' does not follow. The concept of human need we develop is historically open to the continual improvements in understanding that have characterised human progress. But at any one time, there is a body of best knowledge to which international appeal can be made. Put starkly, our theory is relative in time but absolute in space.

Conclusions

This paper has concentrated on one aspect of Martha Nussbaum's recent book – the derivation and identification of 'central human functional capabilities' – itself just one small part of her total *oeuvre*. My purpose has been to compare her approach with that developed by Len Doyal and myself in our theory of human need. The two works have much in common, including endorsement of a fully universal conception of human capabilities/ needs, a critique of relativism and a case for the constitutional rights of all peoples for their needs/ capabilities to be met. Both works articulate a conception of the good which aspires to be universal yet which is dynamic and open-ended. Both are also richer than Sen in their conception of human flourishing, for example in recognising the role of emotional capacities (cf Gasper 2002).

How convincing are the two works in specifying and justifying a conception of human flourishing of relevance to policy across the developing world? Nussbaum derives her CHFCs from Aristotle's writings on 'spheres of experience' and their corresponding virtues. Following her deep engagement with 'the hard practical reasoning of law' and her extended research visits to India, she claims that her latest account expresses an overlapping consensus of people from differing cultures, but there is little evidence that this has in fact happened, or that, if it did, the result would be the same. The potential of informed desire to bridge the gulf between, in our language, wants and needs is unproven. Paradoxically, I believe that little of this harms her central argument, as expressed for example in the powerful and insightful chapters on religion and love, care and dignity. However, a stronger conceptual foundation for her list would give added strength to the thrust of her book.

On the other hand, the Doyal-Gough theory provides a more parsimonious and logical derivation of a thick conception of human flourishing and an equally detailed list of basic and intermediate needs. Beginning with a common human interest – to participate in one's social form of life – we derive two basic human needs. We then call on codified and experiential knowledges to flesh out the universal pre-requisites for meeting basic needs at optimum and lower levels. This permits need satisfiers to be identified in a dynamic yet objective way. However, the exact way that codified and experiential knowledges are to be reconciled in our approach remains to be tackled – especially in a closely bound world of startling inequality and persistent cultural conflicts. I look forward to further debate on these issues.

Nussbaum's thick approach to human capabilities embraces a wide range of human activities and extols a broad vision of human flourishing, but its foundations are shaky and its potential for securing cross-cultural consensus is unproven and probably weak. Sen's thin theory of capabilities has greater potential for identifying priority capacities and has a proven record in underpinning an international consensus on human development, but it provides little systematic or comprehensive guidance on components of human functioning or well-being. Our theory of human need, we would claim, combines the merits of both. By expounding a thin derivation, and by carefully distinguishing

autonomy of agency from critical autonomy, it recognises cultural differences within a universalist framework, but by positing universal satisfier characteristics and recognising our collective understanding of these it provides a richer framework for conceiving, measuring and – conceivably – improving human well-being.

References

- Alkire, Sabina (2002) Dimensions of human development, *World Development* 30(2): 181–205.
- Braybrooke, David (1987) *Meeting Needs*. Princeton University Press.
- Chen, Martha (1986) *A Quiet Revolution: Women in Transition in Rural Bangladesh*. Cambridge, Mass: Schenkman Publishing Company.
- Clark, David (2002) *Visions of Development: A Study of Human Value*, Edward Elgar: Cheltenham.
- Doyal, Len and Ian Gough (1991) *A Theory of Human Need*. Macmillan.
- Garagella, Roberto (2001) Women and Human Development: Review. *Idea Newsletter* June.
www.carleton.ca/idea/newsletter/reports_062001_2.html
- Gasper, Des (1996) Needs and basic needs – a clarification of foundational concepts for development ethics and policy. *ISS Working Paper* 210. The Hague.
- (1997) Sen’s capability approach and Nussbaum’s capability ethic. *Journal of International Development* 9(2): 281–302.
- (2001) Women and Human Development: Review. *Idea Newsletter* June.
www.carleton.ca/idea/newsletter/reports_062001_7.html
- (2002) Is Sen’s capability approach an adequate basis for considering human development?, *ISS Working Paper* 360. ISS, The Hague, Netherlands.
- Gough, Ian (2000) *Global Capital, Human Needs and Social Policies: Selected Essays*. Palgrave.
- Gough, Ian and J.A.McGregor (eds) (2007) *Wellbeing in Developing Countries: From Theory to Research*. Cambridge: Cambridge University Press.
- Max-Neef, Manfred et al (1989) ‘Human Scale Development: An Option for the Future’, *Development Dialogue* 1, Upsala, Sweden.
- Nussbaum, Martha (1988) ‘Nature, function and capability: Aristotle on political distribution’, *Oxford Studies in Ancient Philosophy*, Supplementary Volume 1: 145–184.

- ef15_C14 — (1990) Aristotelian social democracy. In B. Douglas et al (eds) *Liberalism and the Good*. Routledge: 203–252.
- ef16_C14 — (1992) Human functioning and social justice: in defense of Aristotelian essentialism. *Political Theory* 20(2): 202–246.
- ef17_C14 — (1993) Non-relative virtues: an Aristotelian approach. In Nussbaum and Sen (eds): 242–269.
- ef18_C14 — (1995a) Introduction. In Nussbaum and Glover (eds): 1–34.
- ef19_C14 — (1995b) Human capabilities, female human beings. In Nussbaum and Glover (eds): 61–104.
- ef20_C14 — (2000) *Women and Human Development: The Capabilities Approach* (CUP)
- ef21_C14 Nussbaum, Martha and Amartya Sen (eds) (1993) *The Quality of Life*. Oxford: Clarendon.
- ef22_C14 — (2006) *Frontiers of Justice: Disability, Nationality, Species Membership*. Harvard University Press.
- ef23_C14 Nussbaum, Martha and J. Glover (eds) (1995) *Women, Culture and Development: a study of human capabilities*. Oxford: Clarendon.
- ef24_C14 Saith, Ruhi (2001) *Capabilities: the concept and its operationalisation, QEH Working Paper 66*, University of Oxford, February.
- ef25_C14 Sen, Amartya (1984) *Resources, Values and Development*. Oxford: Blackwell.
- ef26_C14 — (1985) *Commodities and Capabilities*. Oxford: Elsevier Science Publishers.
- ef27_C14 — (1992) *Inequality Reexamined*. Oxford: Clarendon.
- ef28_C14 — (1999) *Development as Freedom*. Oxford: Clarendon.
- ef29_C14 Soper, Kate (1993a) A theory of human need, *New Left Review* 197: 113–128.
- ef30_C14 — (1993b) The thick and thin of human needing. In Glenn Drover and Patrick Kerans (eds) *New Approaches to Welfare Theory*. Aldershot: Edward Elgar: 69–81.
- ef31_C14 Wetherly, Paul (1996) Basic needs and social policies. *Critical Social Policy* 16(1): 45–65.

Table 14.1: Comparing the lists

NEEDS: Doyal and Gough		CENTRAL HUMAN FUNCTIONAL CAPABILITIES : Nussbaum
Universal goals	Avoidance of serious harm	Bodily integrity
	Social participation	Affiliation A: social interaction, compassion and justice
	Critical participation	Control over environment A: Political
Basic needs	Survival	Life
	Physical health	Bodily health
	Cognitive and emotional capacity	Senses, imagination, thought Emotions Affiliation B: the social bases of self-respect and freedom from discrimination
	Cultural understanding: teachers	Senses, imagination, thought
	Opportunities to participate	Affiliation A and B
	Critical autonomy	Practical reason Senses, imagination, thought
Universal satisfier characteristics	Nutrition and water	Bodily health
	Protective shelter	Bodily health
	Non-hazardous environment	?
	Safe birth control and child-bearing	Bodily health and Bodily integrity
	Appropriate health care	?
	Security in childhood	Bodily integrity

		Emotions
	Significant primary relationships	Emotions
	Physical security	Bodily integrity
	Economic security	Control over environment B: Material
	Basic education	Senses, imagination, thought
Societal preconditions	Civil/political rights and political participation	Affiliation B: protection against discrimination Control over environment A: Political Also features in: Senses, imagination, thought Practical reason
	Social/economic rights	Control over environment B: Material Also features in: Affiliation A: institutions that nourish affiliation
(Other)	?	Affiliation A: Others
	?	Other species
	?	Play

Endnotes

ⁱ First presented at the Conference on *Promoting Women's Capabilities: Examining Nussbaum's Capabilities Approach*, St Edmund's College, Cambridge, 9–10 September 2002. Thanks to David Clark, Flavio Comim, Dan Jones, Toru Yamamori, the seminar participants and an anonymous referee for helpful comments.

ⁱⁱ She notes that of the major world religions only Buddhism seriously challenges this sort of emphasis on the individual.

-
- iii This is one of the contrasts she draws between her work and that of Amartya Sen.
- iv However, we go one step beyond the traditional confines of social policy. This commitment to meet the needs of strangers and to support the necessary welfare structures cannot stop at the borders of any particular state. The idea of universal human needs leads remorselessly to the global guarantee of their satisfaction. It lends powerful support to contemporary ideas of cosmopolitanism, which sees the entire world as a potential political community – however difficult are the obstacles and however utopian this sounds to our ears today.
- v This criticism of Sen echoes our own (THN 156). Of course, Sen provides examples of functionings but in an unsystematic way. Elsewhere I argue: ‘Sen’s examples [of functionings] 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 the social good’ (Gough 2000: 6–7).
- vi This difference was emphasised during the debate between Sen and Nussbaum at the Cambridge conference. I am grateful to Flavio Comim for reminding me of its relevance here.
- vii She continues: ‘By “overlapping consensus” I mean what John Rawls means: that people may sign on to this conception as the freestanding moral core of a political conception, without accepting any particular metaphysical view of the world, any particular comprehensive ethical or religious view, or even any particular view of the person or of human nature’.
- viii However it must be stressed that this has nothing in common with Maslow’s hierarchical theory of needs as motivations (see THN ch.3).
- ix The term need has been used by some to denote the commodity pre-requisites for a full life (see Sen 1985: 513), but that is not the way we use it. It pertains to a space independent of commodities and utilities, and is thus comparable to Sen and Nussbaum’s couplet of functionings and capabilities. That is why I sometimes refer in what follows to ‘needs/ capabilities’.

-
- ^x *Contra* Dworkin (1988:20) who distinguishes (second-order) autonomy as the capacity of persons to reflect on their first-order preferences, desires and wishes. For us this is a component of autonomy of agency everywhere, not just in political democracies.
- ^{xi} Following Sen's similar point in his analysis of poverty: 'Poverty is an absolute notion in the space of capabilities but very often it will take a relative form in the space of commodities or characteristics' [1983, p.161]. Like Nussbaum, we stress that needs are plural and non-additive. 'One domain of intermediate need-satisfaction cannot be traded off against another' (THN 166). However we do recognize some limited areas where universal satisfiers are substitutes for one another. For example, a colder environment or heavy labour will increase the food requirements of humans.
- ^{xii} The procedural and material preconditions for individual need satisfaction are discussed at length in Gough 2000, [chapter 2](#). They are not pursued here.
- ^{xiii} For comparisons of these and other lists see Saith (2001), Clark (2002) and Alkire (2002). However Alkire inexplicably includes only our intermediate needs, and omits our basic needs, from her summary table.
- ^{xiv} Nussbaum addresses this by distinguishing between basic, internal and combined capabilities (WHD 84–85). Internal capabilities are those personal states that are 'sufficient for the exercise of the requisite functions'. Combined capabilities are internal capabilities combined with suitable external conditions for the exercise of the function. Yet, little is made of this important distinction in what follows.
- ^{xv} Of course, this is not to deny the contemporary role of environmental degradation in undermining livelihoods. But this is captured via its harm to health or autonomy, not via a separate capability to live in relation to the world of nature.
- ^{xvi} Compare Clark's survey of a township and a village in South Africa, enquiring of poor people's own conceptions of their well being and capabilities (Clark 2003: 15–16).
- ^{xvii} The problem of the circularity of preferences and preference evaluation was one of the starting points of our work (THN: 22–24).
- ^{xviii} I am grateful to Martha Nussbaum for clarification of this point.

^{xix} We certainly align ourselves closely with Nussbaum here: ‘The potential for rationality to dominate the political process is linked to a moral vision which Habermas shares with Rousseau. It is a belief in the basic goodness of ordinary people and their potential to live, work, create and communicate together in harmony and to use practical reason peacefully to resolve their disputes and to optimise their need-satisfaction’ (THN 124).

^{xx} This has been a major goal of our research in the ESRC Research Group on *Wellbeing in Developing Countries* at the University of Bath, where we have addressed this issue both conceptually and in practice in twenty-four sites in four developing countries. See Gough and McGregor 2007, and the website: <http://www.welldev.org.uk/>

^{xxi} That all participants possess the best available understanding concerning the technical issues of the problem, that they possess relevant methodological and communicational skills, and that the communication is as democratic as possible.

^{xxii} Much of the detailed argument in our respective books concerns this second, lower level.

^{xxiii} But see Soper 1993a and 1993b for critical comments on this distinction.