Poverty: Concept and Measurement

Mozaffar Qizilbash

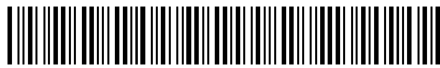
Research Report Series # 12
1998

All rights reserved. No part of this paper may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or information storage and retrieval system, without prior written permission of the publisher.

A publication of the Sustainable Development Policy Institute (SDPI).

The opinions expressed in the papers are solely those of the authors, and publishing them does not in any way constitute an endorsement of the opinion by the SDPI.

Sustainable Development Policy Institute is an independent, non-profit research institute on sustainable development.



© 1998 by the Sustainable Development Policy Institute

Mailing Address: PO Box 2342, Islamabad, Pakistan.
Telephone ++ (92-51) 2278134, 2278136, 2277146, 2270674-76
Fax ++(92-51) 2278135, URL:www.sdpi.org

Table of Contents

Abstract 1
Introduction 1
The Concept of Poverty 2
Basic Needs and Basic Capabilities 4
Poverty as Low Well-Being 7
Pluralist Measures of Poverty 10
The UNDP's Capabilities-Based Poverty Indices 12
An Application: International Comparisons of Poverty 13
Conclusion 16
References 16

The Sustainable Development Policy Institute is an independent, non-profit, non-government policy research institute, meant to provide expert advice to the government (at all levels), public interest and political organizations, and the mass media. It is administered by an independent Board of Governors.

Board of Governors:

Mr V. A. Jafarey
Chairman of the Board

Dr Abdul Aleem Chaudhry
Director, Punjab Wildlife Research Centre

Mr Hameed Haroon
Pakistan Herald Publications Pvt. Limited

Mr Irtiza Husain
Director, Pakistan Petroleum Ltd

Mr Javed Jabbar
President, MNJ Communications Pvt. Limited

Ms Aban Marker Kabraji
Country Representative, IUCN Pakistan

Dr Shahrukh Rafi Khan
Executive Director, SDPI

Dr Amir Muhammad
President, ASIANICS

Mr Shams ul Mulk
Chairman, WAPDA

Ms Khawar Mumtaz
Coordinator, Shirkat Gah

Mr Imtiaz Ahmad Sahibzada
Member, Federal Public Service Commission

In the Research Report Series, the SDPI publishes finished research papers written either by the regular staff of the Institute or affiliated researchers. These papers present research findings directly or indirectly related to sustainable and just development. These findings are meant to provide insights into economic, political, social and other issues in the context of sustainable development.

Poverty: Concept and Measurement[1]

Mozaffar Qizilbash[2]

Your Riches - taught me - Poverty.
Myself - a Millionaire
In little Wealths ...
Emily Dickinson.

Abstract

This paper argues that poverty is best thought of in terms of low well-being, and a lack of basic prudential values. It argues against relativist views, as well as income and capability based views, of poverty. The conceptual account of poverty is brought to bear on the problem of measuring poverty. It is argued that in making international comparisons of poverty we should restrict ourselves to ordinal information and that orderings must be sensitive to the plurality of weights people apply to different values. International poverty rankings based on ordinal information are then constructed and compared to the UNDP's human poverty index ranking. It turns out that rankings based on ordinal information - dominance, Borda and intersection Borda rankings - provide judgements which are quite different from those generated by the UNDP's human poverty index.

Keywords: poverty, well-being, needs, capability, Borda ranking.

JEL Classification Nos: I131 and I132.

Paper presented at the Annual Conference of the Development Studies Association at the University of East Anglia, Norwich, 11-13 September 1997.

0 Introduction

It is common to think of poverty in terms of material deprivation or lack of income. However, a number of commentators, notably Amartya Sen, have moved away from this way of thinking. They have shifted towards thinking of poverty in terms of a failure to meet certain basic needs, or a failure to possess certain basic capabilities. Sen has argued that poverty is a "basic capability failure", and that poverty is absolute in the space of capabilities but relative in the space of commodities. In this paper, I argue against the views that poverty should be thought of in terms of income as well as Sen's capability based view. I suggest that poverty should be thought of in terms of low well-being. More precisely, poverty involves human lives lacking certain *basic* prudential values - prudential values being the sorts of thing which make a human life better - which are

---

1 I am particularly grateful to Sabina Alkire for detailed comments on earlier versions of this paper. I would also like to thank Yorrick da Silva, Nigel Dower, James Griffin, Shahrukh Rafi Khan, Peter Smith and discussants at the Annual Conference of the Development Studies Association at the University of East Anglia at Norwich for their comments on a previous version of this paper. Any errors are mine.

2 Research Fellow, Sustainable Development Policy Institute, PO Box 2342, Islamabad, Pakistan. E-mail: maq@sdpi.sdnpk.undp.org, Tel:++92-51-270674, Ext. 215, Fax:++92-51-278135.

closely related to basic needs. So this approach has a certain amount in common with Sen's views. Some of the concerns of those, like Peter Townsend, who emphasize social exclusion in the analysis of poverty can also be accommodated in this approach. Nonetheless, I argue against Townsend's relativist account of poverty.

The conceptual discussion of poverty in the first half of the paper is then brought to bear on the issue of measuring poverty. It is argued that poverty rankings will in general be incomplete, that in making international comparisons of poverty we should restrict ourselves to ordinal information (information about rank order positions) and that we should make rankings sensitive to the diversity of weights people might apply to the components of poverty. The poverty rankings developed by the United Nations Development Programme (UNDP) and presented in the 1997 *Human Development Report* are based on a cardinal index, and an arbitrary set of weights. The UNDP data are used to construct poverty rankings on the basis of ordinal information alone. Judgements based on ordinal information, involving dominance, Borda and intersection Borda rankings are compared. These rankings differ considerably from the UNDP's rankings, despite the fact that they are based on UNDP data. It is argued that intersection Borda ranking comes closest, amongst the alternatives compared, to matching the nature of our shared judgements about poverty. The paper is structured as follows: the concept of poverty is discussed in section 1; criticisms of the basic needs and basic capabilities approaches are presented in section 2; in section 3 the idea of poverty as a lack of basic prudential values is explained; section 4 discusses pluralist measures of poverty; section 5 explains and evaluates the UNDP's work; the arguments and methods of earlier sections are applied to the problem of making international comparisons of poverty in section 6; and section 7 concludes.

1 The Concept of Poverty

The concept of poverty is naturally contrasted with those of riches and material prosperity. Indeed, poverty is often thought of in terms of a lack of riches, or material prosperity. This conception of poverty has its counterpart in the most common ways of measuring poverty - involving the headcount index and the income gap - which associate poverty with inadequate income. Yet it is often argued that in thinking about and measuring poverty it is not income that is our real concern.[3] Income is not something that is generally valued for itself, but rather valued as a means to other ends. So it can be argued that inasmuch as we are concerned with ultimate things, i.e. with things valued for themselves, our concern is not with lack of income. Furthermore, different people need different amounts of income to lead the life they value. So focusing on income is likely to be misleading. The primary focus in poverty evaluation must rather be on human well-being or the quality of life. Poverty can then be thought about in terms of a shortfall in terms of well-being. Well-being here is thought of, very broadly, so that it relates to a human life going well. The notions of *flourishing* and the *human good* are sometimes used to capture this broad notion of well-being. Our concern here is with what is good for human beings, or what furthers their *interests*. For the moment, I shall use these concepts at a general level without specifying any view of the constitutive elements of flourishing, or of human interests. At this level, "well-being" and the "quality of life" can be used interchangeably. On other, more specific accounts of well-being such as Sen's this is not so. I shall discuss Sen's views in section 2.

It is important to note that there are two different motivations for pursuing this reorientation, from income towards the quality of life. On the one hand, there is the argument about concentrating on objects of intrinsic importance. On the other hand, there is the argument that people need different amounts of income to further their interests (whether these are thought of in terms of needs, capability or prudential values). Both arguments

3 See, for example, Sen (1992, pp. 109-12).

are used by Sen. However, anyone who accepts either argument is likely to support a focus on well-being rather than income.

Even if we agree that poverty involves some shortfall in terms of the quality of life, not any shortfall would count. The question thus arises: what sorts of, and levels of, lack or privation in terms of the quality of life fall under our notion of poverty? This question already presupposes that poverty can be thought of as a form of lack, or privation. It is worth briefly mentioning the variety of uses of "poor" which exist in ordinary language. Not all these uses are relevant to social and economic policy and evaluation, which is the context we are concerned with. We sometimes say that someone is a "poor fellow", for example, when he is unlucky, or unfortunate. Someone who is unfortunate, say because she is crossed in love or because she missed a crucial train, may be very well-off in other respects. So she may be unlucky but not poor. Nonetheless, even in cases where someone is "unfortunate", the word derives from the idea of a lack of fortune (though fortune is understood in terms of luck rather than material goods). However, the use of "poor" to mean "unfortunate" is at some remove from the use that is relevant for economic and social evaluation. The same can be said of uses of "poor" involved in statements like: "this is of poor quality"; "his eyesight is poor" etc.

So we can narrow our focus to a specific context in which "poor" is used. In this context, the question remains: *what sorts or levels of privation or lack in terms of the quality of life or well-being fall under the relevant use of "poor"?* This question involves two issues. The first relates to the *kinds* of lack which constitute poverty. The second relates to the *extent* to which the poor person is lacking. The two issues are interrelated. I shall discuss the first issue in terms of the alternative "spaces" - such as needs, capabilities etc. - in terms of which we can think about poverty in sections 2 and 3. The second issue is about *how low* one must fall in terms of any space in order to qualify as poor. I concentrate on this issue in the remainder of this section. Thus, for the moment I suspend judgement on the spaces in terms of which one should judge human advantage.

There are roughly two ways of approaching the issue of how low one's quality of life must be for one to be poor. The first supposes that if one falls a certain distance below the average (typically median) or "normal" level, one is poor. This approach is sometimes known as the *relativist* view of poverty.[4] The important characteristic of such a view is that poverty depends on the distribution of well-being in society. If I am just above the poverty threshold and my quality of life remains roughly constant, but others become better off, so that the average or normal level rises, then I may become classified as poor on the relativist view. This may not seem too implausible, but relativist accounts of poverty do have stranger implications. Consider this example, which is a close relative to one used by Sen (1983, p. 332). Suppose I suddenly become dramatically worse-off, due to a flood and am starving. However, everyone else in society also becomes worse off, so that the average or socially acceptable level of well-being falls. On a relativist account, it is quite possible that the overall level of poverty is constant, because the average or socially acceptable level of well-being falls. Yet I suggest that, in this case, there is certainly more poverty after the flood than before it. A similar case can be made when everyone becomes better off, but the level of relative poverty remains the same: it is hard plausibly to hold the view that the level of poverty is constant. The relativist view is not faithful to the concept of poverty which is relevant to social and economic evaluation. It is most useful, I suggest, when our concern is with inequality, and that concern is focused on the lower end of the distribution of well-being. The example just cited suggests that if people fall short of some minimum level of, for example, nourishment, they are poor. Some very basic human interest of theirs is not met. What we need for an account of poverty is some view of basic human interests, which must involve some standard or criterion for counting something as "basic". Someone is then said to be poor if some basic interest of hers is not met. In taking this position, I am

4 This view is particularly associated with Townsend (1979, 1985 and 1993).

defending a position held by Sen, which suggests that there is some "absolutist core" of the concept of poverty (Sen, 1983, pp. 332-3), and which has been the subject of a bitter dispute between Peter Townsend (1985) and Sen (1985a). So I shall briefly address Townsend's own view of poverty.

Townsend's view is that poverty involves deprivation. For Townsend "[p]eople can be said to be deprived if they...fall below standards of living which are attained by a majority of the national population or which are socially accepted or institutionalised" (Townsend, 1993, pp. 79-81). If people are denied the resources required to rise above such standards they are poor (Townsend, 1993, p. 84). Townsend is vulnerable here to the argument just made. If there is a natural disaster and people's notion of what is socially acceptable changes, so that despite increased levels of starvation there is the same amount of poverty (on Townsend's definition), that seems wrong. This example is hypothetical but it is very relevant in countries where the majority of people are very badly off, and where the standards relating to what is socially acceptable are very low indeed. Townsend seems to take note of this problem by suggesting that the standards which are treated as socially acceptable may not be the *actual* standards which are socially acceptable (Townsend, 1993, p. 80). That leaves open the issue of how to set a *hypothetical* standard of acceptability. One way of doing this, which deals with the problem, is to set the standard in such a way that nobody is starving, homeless etc. at the socially acceptable living standard. This solution, which deals with Townsend's problem, involves accepting, at some level, a non-relative or "absolute" basis in poverty evaluation. I suspect that Townsend would resist this solution. I shall return to Townsend's notion of deprivation (which is broader than the above quote suggests) in section 3.

The relativist view of poverty expresses an important truth if it is reformulated so that it states merely that poverty evaluation must be sensitive to social and cultural context. Accepting an absolute view of poverty, in terms of basic human interests, says nothing about the specific way in which those interests are met. In different societies and cultures there may be different ways of nourishing oneself, or of achieving basic health. So the specific commodity bundle needed to meet basic interests will vary from place to place, and indeed from person to person. In this sense, poverty is relative in the "space" of commodities but absolute in some other space, involving human interests, such as needs or capabilities (Sen, 1983, pp. 335-8). Being thus sensitive to social, cultural and personal differences does not require that we conflate poverty with relative deprivation. I now turn to certain spaces in which people can be poor.

2 Basic Needs and Basic Capabilities

Starting from the view that poverty has an "absolutist core", there are different ways of proceeding. First, there is the issue of how to evaluate a person's quality of life. Second there is the issue of how to define what is to count as "basic". I shall return to the second of these issues in the next section. The two ways of thinking about poverty which are discussed in this section are: poverty as a failure to meet "basic needs", and poverty as "basic capability failure".[5] In fact, I shall consider three specific alternatives, two of which involve the idea of basic needs. Poverty can be thought of in terms of: (1) a lack of basic necessities, these being particular commodities; (2) a failure to satisfy basic needs, where these are not specified in terms of commodities; or (3) a failure to possess basic capabilities.

It is fairly easy to dismiss (1), the idea that poverty is best thought of in terms of certain basic necessities, these being certain commodities, such as water, food and clothing. Amartya Sen (1983, pp. 333-4) has

5 I treat these categories as distinct, but there is at least one case where basic capability is thought of in terms of need. This is in the case of Nussbaum's version of the capability approach in Nussbaum (1988, p. 145).

argued that these commodities are not what really matter. Food is not valuable in itself, but because of some characteristic, i.e. because it provides nourishment. Furthermore, different amounts of food are needed for different persons to be adequately nourished. So rather than concentrating on certain levels of food we would do better to concentrate on the satisfaction of certain basic needs, such as some level of nourishment. This leads us to option (2): that poverty is best thought of in terms of the failure to meet certain basic needs, satisfaction of which is necessary for the pursuit of any good human life. It is a variation of this general conception of poverty that I will defend in the next section. It can be objected to on grounds not dissimilar to those for rejecting the previous approach. Basic needs, it can be argued, are not what really matter: what matters is each person pursuing his or her conception of the good life. Satisfaction of basic needs is instrumentally valuable to that end, but not valuable in itself. I shall return to this issue.[6] However, note that once needs are delinked from commodities, the basic needs approach is no longer vulnerable to the second sort of criticism of option (1). People need different amounts of commodities to meet certain needs (involving nourishment etc.) Human diversity can be accommodated if we concentrate on such needs, rather than the commodities required to satisfy them. There are also other, rather less abstract, sorts of critique which have been made of the basic needs approach. Some suggest, for example, that the relevant set of needs has been wrongly restricted to nutritional or physical requirements alone, ruling out social needs (Townsend, 1993, p. 32). This sort of criticism typically does not involve rejecting the basic needs approach altogether, but rather concerns the particular list of needs used.

Finally, there is Sen's approach, listed (3) above. Sen's account of poverty is incorporated within a broader account of advantage. Sen's view (Sen 1985b, 1985c, 1993 and Sen *et al*, 1987) is that we should think about the quality of life in terms of the capability to achieve the "functionings" which are (for Sen) constitutive of valuable lives. Functionings here are states of the person, which consist of "beings and doings" (Sen, 1993, p. 31). The idea is that a person's advantage is thought of in terms of what she can be or do, in terms of the range of choice she has between different forms of life. This range of choice, or "capability set", he associates with a person's "positive freedom".[7] His approach to *poverty* involves narrowing the objects of concern down to certain elements of the capability set, namely those which constitute "basic capabilities". The term "basic capabilities" is used to "separate out the ability to satisfy certain crucially important functionings up to certain minimally adequate levels" (Sen, 1993, p. 41). Sen's approach involves distinguishing the quality of life and well-being: the quality of life is thought of in terms of (amongst other things) the ability to achieve well-being (with this latter notion being encompassed within the general idea of valuable functioning).

Part of Sen's motivation for pursuing this path was his desire to distinguish those things which are valuable intrinsically (i.e. for themselves) from those which are only valuable instrumentally (i.e. as means to other ends). He wants to concentrate on freedom which he thinks is valuable in itself rather than on the *means* to freedom. Income, resources and the basic needs would fall under this latter category. I have argued elsewhere that there are difficulties with Sen's view of advantage (Qizilbash, 1996b, 1997a, 1997c and forthcoming). Rather than repeat those arguments I want to concentrate on another argument which is central to Sen's view of poverty.

In *Inequality Reexamined*, Sen (1992) argues against the notion that poverty involves "low well-being" while making the case for poverty as basic capability failure. He argues that poverty thought of in terms

6 I also discuss it at much greater length in Qizilbash (1997b).

7 His view of positive freedom is in turn a little different from and must not be confused with Isaiah Berlin's. See Berlin (1969).

of low well-being is less defensible even than poverty in terms of low income, because low income is instrumentally related to capability failure. He writes:

> *It can be argued that poverty is not a matter of low well-being, but of the inability to pursue well-being because of lack of economic means. If Mr. Richman has a high income and can buy whatever he needs and still squanders the opportunities and ends up rather miserable, it would be odd to call him "poor". He had the means to live a life without deprivation, and the fact that he managed to generate some deprivation does not place him among the poor ... This line of reasoning ... does indeed get us "towards" seeing poverty in terms of income deprivation, but does not take us quite there. (Sen, 1992, p. 110)*

The reasons why this argument does not take us all the way to an income-based view of poverty are the same ones I mentioned earlier when outlining Sen's motivation in pursuing the capability approach: income for Sen is only instrumentally valuable and various people require different levels of income to have certain basic capabilities. However, the example used in this passage seems not to support the case Sen makes against poverty thought of as low well-being. If Mr. Richman is very wealthy, squanders his opportunities and ends up miserable, so that he is starving and homeless, then surely he is poor. Here our judgement of Mr. Richman's poverty depends on the nature and extent of his misery after he squanders his wealth. If miserable Mr. Richman ends up *starving, homeless* etc. after his irresponsible behaviour, he is poor. The point is that he is *responsible* for his poverty.[8] So I suggest that in the context of poverty analysis the argument Sen uses is implausible: someone who is starving and homeless is surely poor irrespective of the opportunities he previously enjoyed but wasted. The view that poverty involves some particularly low level of well-being is more plausible than Sen suggests.[9] There is a further point worth mentioning. Sen often contrasts those, such as hunger strikers (or those who fast), who choose to starve with those who starve without choosing to (Sen, 1992, p.52). The two cases are indeed different, and the difference relates to the presence or absence of choice. Still if someone starves through choice, because of some moral or political goal, it would be a mistake to fail to treat the relevant person as poor, even if he was or is able to avoid poverty. It is just that in this case a person *chooses* to be poor. This sort of case is hard to think about on Sen's view because poverty is related, on his view, to the size of one's choice set. Yet it is possible to have considerable choice and to choose to be poor.

3 Poverty as Low Well-Being

If we eschew the capability approach, what methodology ought we to adopt in analysing the quality of life and poverty? One way, if poverty is thought of in terms of a low level of well-being, is to look to the desire account of well-being. This associates well-being with the satisfaction of certain sorts of desires

8 On certain views of egalitarianism Mr. Richman may not be rightly thought of as worthy of any compensation, on egalitarian grounds, for his low well-being. However, that seems to me to be a point about when compensation is due on egalitarian grounds. The idea that people ought only to be compensated for shortfalls in welfare or advantage if they are responsible for those shortfalls is an egalitarian position which is associated with Sen, though it is more fully articulated by G.A. Cohen and Richard Arneson. See Arneson (1989 and 1991) and Cohen (1989 and 1993).

9 I am not alone in thinking that Sen puts too much emphasis on capability as opposed to well-being. Basu (1987) makes this point, arguing that achievements (in terms of functioning) are important, and it is these that we should concentrate on. Sen has tended to argue that both capabilities and functionings matter.

(Griffin, 1986, Brandt, 1992, Lewis, 1989, *inter alia*). However, there are several reasons why this is not a fruitful path to pursue. I shall mention two. Firstly, the impoverished may reduce their aspirations and adapt their desires to such a degree that they are satisfied with almost anything. However, I doubt that we should say that such people are particularly well-off. They may be undernourished, homeless etc. and yet be contented because they have adapted their desires. The desire account cannot give us the sort of account of well-being we need, unless the relevant desires are selected in such a way that their satisfaction is good for the individual whose life is involved. To match the notions of desire satisfaction and well-being, desire theorists have looked to desires which are idealised in some way, typically *informed* or *rational* desires.[10] I doubt that this move deals with the case of adaptive desires, though it can be argued that impoverished people who are well-informed could not be contented with their lives.[11] Nonetheless, I suggest (and have argued elsewhere) that the more plausible versions of the desire account fail to provide the account of well-being we need, because they overly idealise desires to the point that they are hardly the desires of humans at all.[12] A satisfactory account of well-being needs to focus on the things that make characteristically *human* lives go better.

We cannot, thus, get far towards an account of well-being, and the sorts of things that make human lives better - prudential values - without looking first at the nature of human beings. James Griffin (1991, 1996) has argued that some prudential values are so central that their recognition is necessary for us to see each other as humans at all. We cannot make much sense of each other's utterances if we do not share certain "core" prudential values. Other "non-core" values are not necessary for our mutual intelligibility, but are nonetheless the sorts of thing that make any distinctively human life go better. To get to such values we need a picture of human beings, with their distinctive aims, desires and needs. Griffin argues that in deliberating about what makes a life go well we all come to a list of prudential values. He offers this one: (a) the components of a characteristically human existence (i.e. the components of agency: autonomy, liberty and minimal material provision); (b) enjoyment; (c) understanding; (d) accomplishment (the sort of achievement which gives a life point and weight); and (e) deep personal relations (Griffin, 1991, p. 63). On occasion Griffin (1996, pp. 29-30) has included under (a) the "basic capabilities that enable one to act" alongside "minimum material provision". In related work, I have suggested a different and longer variation on this list. Before going on to that, note that among the list of prudential values there is one which is certainly instrumental: minimum material provision. The same could be said of the very basic capabilities which Griffin sometimes adds to the list. However, if we are to list values which are not intrinsic, but rather instrumental inasmuch as the realisation of each is a necessary condition for the pursuit of any good life, it is worth listing all such necessary conditions. Such instrumental values I term "basic prudential values" (and sometimes "basic values" for short). Amongst these one might count such things as: (A) minimal levels of health, nutrition, security, shelter, sanitation, rest; and (B) (i) certain basic mental and physical capacities[13] and (ii) literacy.[14] One might also argue (and I have done so elsewhere)[15] that certain minimal levels of self-respect and aspiration are necessary for the pursuit of any life plan, or conception of the good. So one might add: (C) some minimal level of aspiration and self-respect. A life which

10 See Griffin (1986), Brandt (1992) and Lewis (1989).

11 See Griffin (1986, pp. 47-8).

12 See Qizilbash (1997c and forthcoming).

13 I use the word "capacities" rather than "capabilities" in order to avoid confusion between Sen's technical use of "capability" and my own use. In using "capacities" here I am referring merely to people's powers or abilities.

14 It might be thought that what matters here is not literacy as such, but the ability to communicate. It needs to be stressed that what I have in mind here is very basic literacy. Perhaps there are other ways in which people might achieve the sort of communication involved in such literacy, but I suggest that writing and reading are characteristically human ways of doing so.

15 See Qizilbash (1996b, 1997b, 1997c and forthcoming).

lacks these basic prudential values, I suggest, falls below the minimally decent life; it is an impoverished life in the sense that people who fall short in terms of the relevant values lack the necessary requirements for the pursuit of any good human life. *In that sense*, their basic needs are not met.

Other prudential values come closer to being intrinsic values: they are amongst the ends we pursue for themselves. One would count such things as: (D) enjoyment; (E) accomplishment; (F) significant personal relations and some participation in social life; (G) "positive freedom" or autonomy; (H) "negative freedom" or liberty; and (I) understanding. The line between intrinsic and instrumental values may be vague at certain points. Freedom may be valuable because of other things it makes possible (such as friendship and enjoyment). Nonetheless, values (D)-(I) are the sorts of things which are at least sometimes valued for their own sake. In the context of poverty analysis I suggest then that a life of poverty is a life lacking in certain basic values, the realisation of which is necessary for the pursuit of any good life. Someone who is not poor might not have much in the way of a prudentially valuable existence. Nonetheless, for such a person the necessary conditions for the pursuit of a good life are in place. Of the basic values, the lack of these most closely associated with poverty are, I suggest, those listed under (A) and (B)(ii). However, I think that to pursue consistently the view that poverty is a failure to realise certain basic values all (A)-(C) should count. It might be argued, on the contrary, that the lack of certain basic intellectual and physical capacities does not count as *poverty*, but as severe *disability*: the two concepts are, it might be suggested, different. One reason someone might make this argument is that the conception of poverty in ordinary use retains a material side to it; it links with "material deprivation", deprivation caused by a lack of economic means. To the extent that economists, like Sen, have tried to think about poverty in terms of the quality of life rather than material deprivation, they are moving away from this use of poverty.[16] If we think of poverty in terms of a very low level of well-being, it is more plausible that a particularly severe kind of disability can be thought of as a form of poverty. Nonetheless, I accept that some might want to restrict the focus to certain, but not all the basic values.

It is significant here that I have specified the low level of well-being which is characteristic of poverty in terms of values which are thought of as instrumental. To be sure, a life without the other values can also count as impoverished: it may lack fun, or much significant achievement, or worthwhile friendships or much autonomy. That does not of itself make the friendless, bored, unaccomplished or weak-willed person poor, in the sense we are concerned with.

This conception of poverty can help us to think about the deprivation approach associated with Peter Townsend. One central idea in that approach is that poverty involves *social exclusion*: people do not have the resources necessary to participate in the life of the community (Townsend, 1993, p. 36).[17] In the list I have given, some participation in social life is among the values which are intrinsic. It does not enter the *definition* of poverty, since on the above account such participation is not *necessary* for the pursuit of any good human life. It is not necessary, for example, to the life of the scholarly hermit. Nonetheless, in the approach I am advocating, poverty will typically also involve such exclusion: lack of basic nourishment, shelter and self-respect[18] should certainly limit the sorts of social participation which enrich a human life.[19] However, it is

16 Indeed, on Sen's view, poverty is best characterised as form of disability, if this is understood in terms of capability failure.

17 In fact, there are several different ways of thinking about social exclusion. On this see de Haan (1997).

18 I am concerned here with self-respect as an instrumental value, and social participation as an intrinsic value. To the degree that these values are tied, and some social participation might be involved in having basic self-respect, social exclusion can cause, or indeed be constitutive of poverty. This point supports the view that the instrumental/intrinsic distinction is weaker than some suggest.

19 Townsend's definition of poverty thus retains a connection with the idea of poverty as a lack of resources. This is

important that poor people will not only fail to participate much in the life of the community, they will also typically fail to accomplish much, or to get much enjoyment out of life. The *phenomenon* of poverty can involve a wide range of deprivations only some of which are relevant to the *definition* of poverty.

It might be argued that the list of basic values that I have given, like the various lists of basic needs, puts too much importance on commodities rather that the things that they make possible. In this respect, it could be argued that the approach is open to the same criticisms that were earlier levelled at other approaches involving income and needs. Of course, I have been explicit about the fact that the list of basic values is supposed to enumerate necessary conditions for the pursuit of the good. Insisting on the importance of such needs in poverty evaluation is very far from giving intrinsic importance to or "fetishising" commodities. Indeed, none of the basic values I have listed are actually commodities. Health and nutrition are the sorts of things for which one needs food and medicine: they are not themselves commodities. Rather certain commodities (like food and medicine) have the characteristic that they nourish us or make us healthy. Each commodity derives its value from some characteristic which promotes a human interest. "Sanitation" and "shelter" come closest to being commodities. Yet they are still at some distance from them. Houses have the characteristic that they protect us and provide shelter, and this makes our lives go better; a good sewerage system has the characteristic that it provides sanitary conditions. So, I suggest that commodities are valuable in virtue of characteristics. However, the items on the list of values are the sorts of things which are themselves at some remove from commodities. They are the values which commodities help us to realise. So poverty is best thought of as a shortfall in terms of the values, realisation of which is necessary for the pursuit of a good life. *In this sense*, poverty is about being short of the means for pursuing a good life.

A final question must be answered: how is one to specify "basic" on this view. The answer is simply that a prudential value is basic if its realisation is a *necessary* condition for the pursuit of any good human life. Some level of nourishment, of shelter etc. must count as necessary for the formulation and pursuit of *any* conception of the good. That minimal level is a "basic" value. The chief problem here is not with the notion of the "basic" (need, value, capability etc.), but rather with specifying the precise level which is basic. Is the level that is "basic" not likely to change with culture and time? Here I return to the argument for an absolute view of poverty. Clearly, one must be sensitive to cultural, social and historical context. However, there is some notion of a distinctively *human* life, which crosses culture and time, and this must guide us in formulating the precise standards for what is basic to any human flourishing.

Before moving on, I want to mention certain similarities and contrasts between Sen's approach and the one adopted here. First, certain minimal intellectual and physical capacities are included in the list. However, I have argued that these are the sorts of capacities which are necessary for the pursuit of any good life. They are instrumentally rather than intrinsically valuable. Secondly, while I have portrayed Sen as arguing for poverty as basic capability failure rather than low well-being, some have interpreted his approach to poverty in terms of low well-being, thought of as the failure to achieve certain basic functionings. In a recent paper, Alessandro Balestrino describes "Sen's approach" to poverty as "a shift away from income to well-being as represented by functioning vectors" (Balestrino, 1996, p.99). In his response to Balestrino's paper, Sen makes no complaints. Indeed, he refers to Balestrino's paper as "excellent (and in its context, definitive)" (Sen, 1996, p. 123). So I suspect that Sen objects rather less to the notion that poverty can be thought of as low well-being than suggested in the passage from *Inequality Reexamined* cited in the previous section.

---

strange given his desire to focus on *social* rather than material deprivation.

4 Pluralist Measures of Poverty

Once a list of the basic prudential values is in place, we need some way of moving from a plural set of such values to an overall measure or index of poverty. The problem here is a special case of the more general problem of a pluralist index of well-being (or ill-being), which takes into account the many irreducible things that make a life go better. The traditional approach to poverty assumed that, while there may be many important needs, one unit of measurement, typically income, could be used to capture the many dimensions. The problem was then simply to specify the level of income required to meet basic needs (or more narrowly, nutritional requirements). This level was called "the poverty line" and people were identified as poor if they fell below it. Merely counting the number of people below the line gives rise to the most popular income-based poverty measure, the "headcount index".[20] However, such income-based measures are likely to be deceptive because of human diversity. People convert income into the stuff of basic value at different rates. This is a generic problem for "indirect" measures of poverty which look at the income which enables people to meet basic needs.[21] This difficulty leads us to look to "direct" measures, which look at whether certain needs have been met, whether people are actually nourished to minimally adequate levels etc.

There remains an important problem with direct pluralist measures of poverty, which is shared by pluralist indices of well-being. How do we combine our judgements about the many ingredients of well-being or poverty into an all things considered judgement? The problem here is similar to the well known problem, analyzed by Kenneth Arrow, concerning the possibility of a social welfare function, a social ranking over social states, given that people have different individual preferences over those states. Arrow (1984) famously showed that there is no social welfare function satisfying certain plausible conditions. In related work (Qizilbash, 1997c), I have argued that this sort of result does not hold for a well-being function, which involves moving from a set of rankings according to the components of well-being to an all things considered well-being ranking. This point also applies to poverty indices, because these are just special forms of well-being indices. A poverty index is a form of well-being (or "ill-being") index in which the relevant values, which are used to arrive at the final ranking, are restricted to basic values.

In related work, I have argued that in making well-being comparisons, particularly at inter- and intranational levels: (α) we ought to use only ordinal information i.e. information on rank order position alone; and (β) in the ranking of overall well-being we must be sensitive to the fact that people may apply different weights to the component values. In arguing for a restriction on the sort of information we use in constructing a well-being index I follow Partha Dasgupta (1993, p. 109). "Cardinal" information on well-being, which attempts to quantify differences in well-being, is not very reliable; the use of ordinal information allows us at least to get rid of certain consistent biases in the data (e.g. if the data on literacy are consistently overstated, and those on life expectancy consistently understated). In the presence of such consistent biases, the position of each alternative in the ranking (according to each basic value) will not be affected. The adoption of this restriction leads Dasgupta in the direction of the Borda rule, which uses only rank order information in arriving at an overall ranking. I shall return to this form of ranking, below. The second argument, i.e. (β), asks us to recognise the diversity of weights which people apply to the various prudential values. This condition leads us towards a ranking which is invariant to the set of

20 An alternative measure - the income or poverty gap - involves measuring the extent to which individual incomes fall short of the poverty line, summing up these shortfalls and expressing the sum as a ratio of national income. Sen used the headcount index, the poverty gap and a measure of inequality among the poor to introduce considerations of relative deprivation among the poor. On this see Sen (1976).

21 Sen (1981, pp.26-8).

weights which are applied to the various values. One way of dealing with this problem is to use what Amartya Sen calls the "intersection method" (Sen, 1993, p.47). This involves only ranking cases where the various criteria or weights used give the same answer. One application of the intersection method in this context involves dominance ranking. This involves one alternative (nation, region etc.), x, having more poverty than another, y, if it has more of all the particular forms of poverty. This judgement does not depend at all on the relevant weights used. If we are to apply weights to the components of poverty, then an equivalent intersection procedure would mean that there is more poverty in x than y, if there is more poverty in x for all the relevant weights applied to the particular components of poverty.

If we are to use only ordinal information and to accommodate the possibility that people use different weights in arriving at any judgement of well-being and poverty there are, as I mentioned earlier, different methods that we can use. Dominance ranking clearly satisfies both the constraint regarding ordinal information and weight sensitivity. However, the dominance ranking will not rank any case where an alternative, x, has more poverty than another, y, in terms of one component of poverty but less in another. There are many such cases, I suggest, where we can make shared judgements, in spite of the different weights we apply to the various components of poverty. The question is whether we can use some alternative method which uses only ordinal information, but yields more *comparability*. If all alternatives are comparable a ranking is complete. To be more precise, a poverty ranking is complete if and only if, for all x and y, x has either more, less or as much poverty as y.

There are good reasons for supposing that poverty rankings, like well-being rankings, will not be complete. Both imperfect information and the plurality of values and weights suggest such incompleteness. First, consider imperfect information. If we do not have much information about the alternatives being compared so that we do not know much about the manner in, and extent to, which the different values manifest themselves in human lives, our ability to make comparisons of well-being and poverty will be limited.[22] This implies incompleteness in the poverty ranking. The plurality of weights and values also implies such incompleteness, if we are interested in shared judgements. Even if we agree on a list of basic values, we may use different weights in making poverty judgements. Shared judgements will only arise where different weights generate the same ranking. Such judgements may arise in cases where one alternative does not have more poverty than another in terms of all the basic values. Thus, we may be able to arrive at shared judgements even when two alternatives are non-comparable in terms of the dominance ranking. This suggests that a ranking which yields more comparability than the dominance ranking, yet is nonetheless incomplete will best match our shared judgements.[23] I suggest below that a variation of the Borda rule has this characteristic. However, first I must explain the Borda rule.

The Borda rule uses only ordinal information, in the form of rank order positions. There are different ways of using the Borda rule. Here I shall use the following procedure. First, rank each of N alternatives in terms of all the individual components of poverty, with the alternative with most poverty scoring 1 and the one with least poverty scoring N (assuming there are no ties). Next, add up all the rank order positions or "scores" for each alternative, arriving at the Borda score. Finally, rank the alternatives again according to the Borda score, with the alternative with the highest Borda score scoring N (assuming no ties) and the lowest scoring 1. In the case of ties the same number is assigned, so that if there are four alternatives which have more poverty than each of

22 I discuss this issue at greater length in Qizilbash (1997b).

23 There is now a considerable literature on incompleteness and "fuzziness" in poverty rankings, though this has typically concentrated on incompleteness or fuzziness of judgements when people apply different poverty lines in the traditional income-based framework. On this see: Atkinson (1985), Foster and Shorrocks (1988), Cerioli and Zami (1990), Chiappero Martinetti (1994 and 1996), Cheli and Lemmi (1995) and Sen (1997).

A and B, both A and B have a score of 5. If two (three, four etc.) alternatives tie in terms of having the least amount of poverty, they both (all) score N-1 (N-2, N-3 etc.). The final ranking is complete, but does not take into account the fact that individuals use different weights in judging well-being and poverty.

In related work (Qizilbash, 1997c), I have suggested a way of dealing with the weighting problem which involves Sen's intersection method. I have suggested a technique which uses only ordinal information, but uses intersection methods in the aggregation of this information. Here one would first rank different alternatives in terms of the components of poverty. Then one would sum the rank order positions, using different weights, arriving at a weighted Borda score. If the ranking is invariant to the use of different weights, and one alternative has more poverty than another in terms of all weights used, then we can say that that alternative involves more poverty. This particular ranking - where rank order information is combined with the use of intersection methods - I call the *intersection Borda ranking*. Clearly this procedure generally produces an incomplete ranking. However, it often produces answers where the dominance ranking is silent. I shall illustrate this property of the intersection Borda ranking in section 6, where I apply the methods discussed here. A particular problem with both the Borda rule and intersection Borda ranking is that they violate the condition of "independence of irrelevant alternatives" (Arrow, 1984). This condition requires that the final ranking between x and y should depend only on the ranking of x and y in terms of the particular components of poverty. It should not change if there is a change in the rank order of some other alternative, z. The Borda rule violates this condition because the final ranking of x and y depends crucially on their rank order positions and these positions can change if there is some change in the number of alternatives which fall between x and y in some particular component ranking which leaves the ranking between x and y the same in that component. I shall explain the implication of this violation in section 6. Next, however, I turn to certain pluralist measures of poverty recently developed by the UNDP.

5 The UNDP's Capabilities-Based Poverty Indices

The UNDP has recently produced two indices of poverty. Both measures are inspired by the capability approach, and both incorporate a plural list of "capabilities". The first of these measures, the *capability poverty measure*, appeared in the 1996 *Human Development Report* (UNDP, 1996) and has already been superseded by a new measure. In this section, I concentrate on the most recent of the UNDP's measures, the *human poverty index* (HPI). This measure is supposed to be based on the capability approach to poverty, though the UNDP claim also to draw on other approaches to poverty involving income and basic needs (UNDP, 1997, p. 16).

To operationalise the capability approach, to produce a concrete measure of poverty, we need to take three steps. Firstly, we need a list of basic capabilities. Secondly, we need indicators which proxy for each of the capabilities. Thirdly, we need an aggregation procedure, i.e. some way of moving from a set of indicators to an overall index. The "capabilities" (i.e. components of the HPI) mentioned by the UNDP relate to longevity, knowledge and a "decent standard of living" (UNDP, 1997, p.18). They are closely related to the components of the UNDP's human development index.[24] The shortfall in terms of the first of the components of the HPI, longevity, is proxied by the percentage of people expected to die before the age of forty. The shortfall in the second, knowledge, is proxied by the proportion of illiterate adults. The shortfall in the third, a "decent standard of living", is represented by a composite (unweighted average) of three variables: the percentage of people without access to health care services, the percentage without access to safe water, and the proportion

24 The list of capabilities in the earlier 1996 report (UNDP, 1996, p.109) seems to be related to a list developed by Meghnad Desai (1990).

of children under the age of five who are malnourished (UNDP, 1997, p.18).

Looking at this list it seems unimportant that it is a list of capabilities as such. The components involved could be generated from a list of basic needs (whether or not these are thought of in terms of basic prudential values). The list takes account of basic needs or capabilities involving health, literacy, and nourishment. It is strange that health appears at least twice, once in the longevity measure and again in the access to health care services (and perhaps a third time in the case of clean water): this procedure is open to the criticism that it double (or triple) counts health.

Finally, there is the form of aggregation adopted for the HPI. This involves simply taking a weighted mean of power α (UNDP, 1997, p. 117). If we index the three components measures of poverty by i so that, P_i is poverty in terms of component i, where i=1,2 and 3, and the weights attached to these components are w_i, i=1,2 and 3, then the weighted average of power " is P(α):

(1) $$P(\alpha) = (\sum_{i=1}^{3} w_i P_i^{\alpha}) / (\sum_{i=1}^{3} w_i)$$

In fact the HPI is a special case of (1) where all the weights are equal, are set at a third, and the value of α is set at 3. α is set above one because a unit increase in the P_i at a higher level of deprivation is thought of as more important and so has a greater impact on the overall index. If α is one (so that (1) becomes the arithmetic mean) a unit increase in P_i has the same effect however high the level of deprivation in that component. The intuition for choosing a value of α in excess of one is clear. However, this involves putting a lot of importance on the particular figures that are used in arriving at the final index. It also puts considerable importance on the differences between the P_i of various countries, i.e. on cardinal information, when it comes to arriving at the final ranking of countries. It is just this sort of ranking that the UNDP is interested in. This procedure goes against the argument I made in the last section for a restriction involving only ordinal information. As regards weights, as I mentioned above, the UNDP uses equal weights in arriving at the final poverty index. This is an obvious if arbitrary way of dealing with the weighting issue. The UNDP makes no serious attempt to deal with the different weights people might apply to the components of poverty indices. So the UNDP's HPI fails both in terms of the sort of information that is used in arriving at the final ranking, as well as with respect to weight sensitivity.

6 An Application: International Comparisons of Poverty

In this section, I use the general approach outlined in earlier sections and some of the particular forms of ranking described in section 4 to make international comparisons of poverty. I compare the poverty rankings arrived at with those which the UNDP has generated on the basis of the HPI. In order to operationalise the notion of poverty as a failure to realise basic (prudential) values at the level of international comparisons, I use the list of basic values and proxies which estimate country performance in terms of each of these. Some of the basic values, such as basic self-respect, security and aspiration are very hard to quantify. In cases such as basic health, sanitation, literacy and nourishment, however, there is data which is collected on an international level, though the quality and international comparability of this data might be doubted. In other cases, such as the very basic mental and physical abilities,[25] basic rest, and shelter, again the values are quantifiable but there is little data. In the case of rest, this is in part because hours of leisure are often unobservable. It is true,

25 Barbara Harriss-White (1996) discusses some of the data that is available, though her focus is on India. See also UNDP (1997, p. 177).

furthermore, that some of the basic values are connected: sanitation is related to health, and lack of basic health is not conducive to much in the way of aspiration. So there is a danger of double counting values. In the exercise that follows, I use one component variable to proxy each basic value. If this procedure is followed the link between the variable chosen, and the value it relates to, is transparent. The issue of weighting is also clearer if this procedure is followed: we have a good idea of the value to which we are giving a particular weight when we apply weights to the variables chosen.

There is limited data which can be treated as internationally comparable in the context of international comparisons of poverty. I use data from the UNDP's *Human Development Report* for 1997, since I wish to compare the ranking techniques discussed in section 4 with that used by the UNDP. In making international poverty comparisons, I use the proportion of people who are not expected to live beyond the age of forty to proxy for the shortfall in basic health. The rate of adult illiteracy is used to proxy the shortfall in literacy. The percentage of underweight children under the age of five is used to measure the shortfall in basic nutrition. Finally, the proportion of people with access to sanitation is used as a proxy for basic sanitation. The data on these variables is given in table 1. It should be noted that the data in this table relates to different years, so that one has to be careful in interpreting it. My reason for using this data, in spite of the irregularities involved, as mentioned earlier, is that it is the data used by the UNDP. Dominance, Borda and intersection Borda rankings based on this data can be meaningfully compared to the ranking in terms of the HPI. In fact the data in table 1 relates to all but four of the seventy eight countries which have been ranked in terms of the HPI in the 1997 *Human Development Report* (UNDP, 1997, p.21). Four countries were omitted because there was no data relating to sanitation available for them.

The rankings of the remaining seventy four countries in terms of these variables is presented in table 2. The rankings are done in such a way that the country with most poverty ranks 1, and the one with least poverty is ranked 74, except in the case of ties. In the case of ties (as before) if two countries both have three countries below them, they both rank 4. Thus, if two (three, four etc.) countries tie for lowest in terms of poverty, they both (all) have a rank order position of 73 (72, 71 etc.). Table 2 shows the various countries ranked in terms of the Borda rule. Firstly, however, consider the dominance ranking. At the top of the Borda ranking, Cuba cannot be compared to Costa Rica or to Trinidad and Tobago in dominance terms: Costa Rica and Trinidad and Tobago have less poverty than Cuba in terms of at least one variable. On the other hand, Cuba has less poverty than Columbia in terms of the dominance ranking. This is a strong result. It is also notable that Columbia is non-comparable with Costa Rica and Trinidad and Tobago in terms of the dominance ranking. Before moving on, note that China has less poverty than India, with which it is often compared, in terms of the dominance ranking. However, Pakistan and India are non-comparable. I shall return to this case.

In terms of the Borda ranking presented in table 2, Cuba has the least poverty and Ethiopia the most. This is already different to the ranking in terms of the HPI. That ranking is presented in table 3. The HPI ranking in table 3 is done in such a way that it can be compared to the Borda ranking: the country with least poverty has a HPI rank of 74 and the country with the highest HPI is ranked 1. From table 3 it is clear that Trinidad and Tobago has the least poverty and Niger the most in terms of the HPI. The final column in table 3 gives the difference between the two rankings: it is the Borda rank less the HPI rank. In only five cases there is no difference in rank. In seventeen cases a country has changed rank by ten places or more. So the Borda ranking is very different to the HPI ranking. The Borda ranking is to be preferred to the HPI ranking, inasmuch as it uses only rank order information. However, it fails to take account of the diversity of weights. Finally, it is worth mentioning the violation of the independence of irrelevant alternatives condition in this context. This

means that in a comparison between India and Pakistan, the Borda ranking might change even if the ordinal rankings of the two countries in terms of each poverty component remain the same, because there is an increase in malnourishment in some part of Africa (for example) which affects rank order positions. This is clearly an unfortunate feature of the Borda ranking.

The Borda ranking is complete. Completeness is achieved by assuming an arbitrary set of weights. (In this case, in fact, equal weights are used, since each variable is equally important in arriving at the Borda score, and I have matched each variable to one value.) It is worth checking what level of comparability is yielded by the intersection Borda ranking. It is easiest to check the intersection Borda ranking in cases where one country, A, has less poverty than another, B, in terms of one value only, and has more poverty in terms of the others. The intersection ranking can then be checked by giving the highest possible weight to the exceptional value in terms of which A has less poverty than B, and looking to see if A's weighted Borda score is higher than B's. However, to do this we need to specify a set of weights. One easy weighting scheme involves using discrete non-zero weights, such as 0.1, 0.2, 0.3... etc. adding up to one. On this basis, if there are C components of poverty, then the highest value that a weight can take is 1-{(C-1)/10}. Since the number of variables used in the Borda ranking (here) is 4, the highest weight possible is 0.7, and the lowest is 0.1. This sort of weighting procedure might seem arbitrary. It is only likely to be useful if it can command consensus in some particular context in which the ranking is done.[26]

The intersection Borda ranking, using these weights, certainly ranks some countries which are non-comparable in dominance terms. Cuba and Mauritius, which cannot be compared in terms of the dominance ranking, because Mauritius has less poverty than Cuba in terms of sanitation, are comparable in terms of the intersection Borda ranking. Cuba has less poverty in terms of that ranking. On the other end of the Borda ranking, Mali is non-comparable with Ethiopia in terms of the dominance ranking, because Mali does worse in terms of illiteracy. When we consult the intersection Borda ranking, Mali has less poverty than Ethiopia. Finally, note that there are many countries which are not comparable in terms of the intersection ranking. A comparison between India and Pakistan is a case in point. India has much less poverty than Pakistan if this is judged in terms of the HPI. This is interesting, in part, because in terms of the standard income measures, Pakistan, typically, has *less* povery than India.[27] If we consult the Borda ranking the two countries are very close, with India two rank order positions above Pakistan in the ranking. However, in terms of the variables used in the Borda ranking, India and Pakistan are non-comparable when it comes to the intersection Borda ranking. In cases like this one, a great deal depends on the choice of weights. In such cases, I doubt that we could reach a shared judgement about the poverty ranking. The intersection Borda ranking does, thus, capture some of our shared judgements, where the dominance ranking is silent, without forcing a complete ranking of the "league table" sort.

7 Conclusions

Poverty, it has been argued, can be thought of as absolute in the realm of human interests, though the commodities required to meet those interests are context specific. Human interests in turn are best thought of in terms of a list of prudential values. Since basic prudential values are irreducible, plurality has important implications for poverty rankings. Indeed, both plurality (of values and weights) and imperfect information

26 Inasmuch as the intersection Borda ranking produces judgements which are more robust than those produced by the Borda ranking, I suspect that the intersection ranking is also less likely to violate the independence of irrelevant alternatives condition.

27 See, for example, UNDP (1995, p. 179).

suggest that poverty rankings will be incomplete. Imperfections and biases in the data suggest furthermore that rankings should be based on ordinal information alone. Taking these arguments seriously leads one to rankings based on ordinal information which are very different to those arrived at by the UNDP in terms of the HPI. Of the rankings considered the one which I suggest comes closest to matching our shared judgements of poverty is the intersection Borda ranking.

References

Arneson, Richard, (1989), "Equality and Equal Opportunity for Welfare," *Philosophical Studies*, (56), pp. 77-93.

_________ (1991), "Liberalism, Distributive Subjectivism and Equal Opportunity for Welfare," *Philosophy and Public Affairs*, (19), pp. 158-94.

Arrow, Kenneth, (1984), *The Collected Papers of Kenneth Arrow, Volume 1: Social Choice and Justice*, Oxford: Blackwell.

Atkinson, Anthony, B, (1987), "On the Measurement of Poverty," *Econometrica*, (55), pp. 749-64.

Balestrino, Alessandro, (1996), "A Note on Functioning-Poverty in Affluent Societies," *Notizie di Politeia*, (12), pp. 97-105.

Basu, Kaushik, (1987), "Achievements, Capabilities and the Concept of Well-Being," *Social Choice and Welfare*, (4), pp. 69-76.

Berlin, Isaiah, (1969), *Four Essays on Liberty*, Oxford: Oxford University Press.

Brandt, Richard, (1992), "Rational Desires," in Richard Brandt, *Morality, Utilitarianism and Rights*, Cambridge: Cambridge University Press.

Cheli, Bruno and Lemmi, Achille, (1995), "A 'Totally' Fuzzy and Relative Approach to the Measurement of Poverty," *Economic Notes*, (94), pp. 115-34.

Cerioli, Andrea and Zami, Sergio, (1990), "A Fuzzy Approach to the Measurement of Poverty," in Dagum, C. and Zenga, M., (eds), *Income and Wealth Distribution, Inequality and Poverty*, Berlin: Springer Verlag.

Chiappero Martinetti, Enrica, (1994), "A New Approach to the Evaluation of Well-Being and Poverty By Fuzzy Set Theory," *Giornale Degli Economisti e Annali di Economia*, (53), pp. 367-88.

_________ (1996), "Standard of Living Evaluation Based on Sen's Approach: Some Methodological Suggestions," *Notizie di Politeia*, 12, Special Issue, pp. 37-53.

Cohen, G.A., (1989), "On the Currency of Egalitarian Justice," *Ethics*, (99), pp. 906-44.

_________ (1993), "Equality of What? On Welfare, Goods and Capabilities," in Martha C. Nussbaum and Amartya K. Sen (eds), *The Quality of Life*, Oxford: Clarendon Press.

Desai, Meghnad, J., (1990), "Poverty and Capability: Towards an Empirically Implementable Measure," Development Economics Research Programme Working Paper Series, Paper No. 27, STICERD, London School of Economics.

Dasgupta, Partha, (1993), *An Inquiry into Well-Being and Destitution*, Oxford: Clarendon Press.

Foster, James E. and Shorrocks, A.F., (1988), "Poverty Orderings and Welfare Dominance," *Social Choice and Welfare*, (5), pp. 91-110.

Griffin, James, (1986), *Well-Being: Its Meaning, Measurement and Moral Importance*, Oxford: Clarendon Press.

_________ (1991), "Against the Taste Model," in Jon Elster and John E. Roemer, (eds), *Interpersonal Comparisons of Well-Being*, Cambridge: Cambridge University Press.

_________ (1996), *Value Judgement: Improving Our Ethical Beliefs*, Oxford: Clarendon Press.

de Haan, Arjan, (1997), "Poverty and Social Exclusion: A Comparison of Debates on Deprivation," Poverty

Research Unit at Sussex, Working Paper no. 2, University of Sussex.
Harriss-White, Barbara, (1996), "The Political Economy of Disability and Development. With Special Reference to India," United Nations Research Institute for Social Development Discussion Paper, No. 73.
Lewis, David, (1989), "Dispositional Theories of Value," *Proceedings of the Aristotelian Society*, (63), Suppl. Vol. pp. 113-37.
Nussbaum, Martha C., (1988), "Nature, Function and Capability: Aristotle on Political Distribution," *Oxford Studies in Ancient Philosophy*, (6), Suppl. Vol. pp. 145-84.
Qizilbash, Mozaffar, (1996a), "Ethical Development," *World Development*, (24), pp. 1209-21.
_________ (1996b), "Capabilities, Well-Being and Human Development: A Survey," *Journal of Development Studies*, (33), pp.143-62.
_________ (1997a), "Well-Being and Despair: Dante's Ugolino," *Utilitas*, (9), pp. 227-40.
_________ (1997b), "Needs, Incommensurability and Well-Being, *Review of Political Economy*, (9), pp. 261-76.
_________ (1997c), "Pluralism and Well-Being Indices," *World Development*, (25), no. 12, pp. 2009-2026.
_________ (forthcoming), "The Concept of Well-Being," *Economics and Philosophy*, Paper Presented at the Conference on Ethics, Development and Global Values, University of Aberdeen, and Discussion Paper in Economics and Econometrics no. 9634, University Of Southampton.
Sen, Amartya, K, (1976), "Poverty: An Ordinal Approach to Measurement," *Econometrica*, (44), pp. 219-33.
_________ (1980), "Equality of What?" in Amartya K. Sen, (1982), *Choice, Welfare and Measurement*, Oxford: Blackwell.
_________ (1981), *Poverty and Famines*, Oxford: Oxford University Press.
_________ (1983), "Poor, Relatively Speaking," in Amartya K. Sen, (1984), *Resources, Values and Development*, Oxford: Blackwell.
_________ (1985a), "A Sociological Approach to the Measurement of Poverty: A Reply to Professor Peter Townsend," *Oxford Economic Papers*, (37), pp. 669-76.
_________ (1985b), *Commodities and Capabilities*, Amsterdam: North Holland.
_________ (1985c), "Well-Being, Agency and Freedom," *Journal of Philosophy*, (82), pp. 169-221.
_________ (1992), *Inequality Reexamined*, Oxford: Clarendon Press.
_________ (1993), "Capability and Well-Being," in Martha C. Nussbaum and Amartya K. Sen (eds), *The Quality of Life*, Oxford: Clarendon Press.
_________ (1996), Freedom, Capabilities and Public Action: A Response," *Notizie di Politeia*, (12), pp. 102-25.
_________ (1997), *On Economic Inequality*. Expanded Edition with a Substantial Annexe by Amartya K. Sen and James E. Forster. Oxford: Clarendon Press.
_________ *et al* (1987), *The Standard of Living*, Cambridge: Cambridge University Press.
Townsend, Peter, (1979), *Poverty in the United Kingdom*, London: Allen Lane.
_________ (1985), "A Sociological Approach to the Measurement of Poverty - A Rejoinder to Amartya Sen," *Oxford Economic Papers*, (37), pp. 659-68.
_________ (1993), *The International Analysis of Poverty*, Hemel Hempstead: Harvester Wheatsheaf.
United Nations Development Programme (1995), *Human Development Report*, New York: Oxford University Press.
_________ (1996), *Human Development Report*, New York: Oxford University Press.
_________ (1997), *Human Development Report*, New York: Oxford University Press.

Table 1: Poverty in 74 Countries

Country	E	L	M	S
Madagascar	32.1	54.2	34.0	3.0
Malawi	38.1	44.2	30.0	6.0
Sierra Leone	52.1	69.7	29.0	11.0
Cambodia	31.9	65.0	40.0	14.0
Zaire	30.0	23.6	34.0	18.0
Burkina-Faso	36.1	81.3	30.0	18.0
Ethiopia	35.7	65.5	48.0	19.0
Guinea	41.3	65.2	26.0	21.0
Sudan	25.2	55.2	34.0	22.0
Papua New Guinea	28.6	28.8	35.0	22.0
Viet Nam	12.1	7.0	45.0	22.0
Togo	28.4	49.6	24.0	23.0
China	9.1	19.1	16.0	24.0
Yemen	25.6	58.9	39.0	24.0
Haiti	27.1	55.9	28.0	24.0
Lao	32.7	44.2	44.0	28.0
Lesotho	23.9	29.5	21.0	28.0
India	19.4	48.8	53.0	29.0
Guinea-Bissau	43.2	46.1	23.0	30.0
Mali	28.4	70.7	31.0	31.0
Egypt	16.6	49.5	9.0	32.0
Namibia	23.1	60.0	26.0	34.0
Paraguay	9.2	8.1	4.0	41.0
Morocco	12.3	57.9	9.0	41.0
Cote d'Ivoire	23.1	60.6	24.0	43.0
Myanmar	25.6	17.0	43.0	43.0
Pakistan	22.6	62.9	38.0	47.0
Bangladesh	26.4	62.7	67.0	48.0
Cameroon	25.4	37.9	14.0	50.0
Indonesia	14.8	16.8	35.0	51.0
Burundi	33.8	65.4	37.0	51.0
Central African Republic	35.4	42.8	27.0	52.0
Mozambique	43.8	60.5	27.0	54.0
Niger	43.2	86.9	36.0	54.0
Ghana	24.6	36.6	27.0	55.0
Bolivia	19.6	17.5	16.0	55.0
Botswana	15.9	31.3	15.0	55.0
Peru	13.4	11.7	11.0	57.0
Nigeria	33.8	44.4	36.0	58.0
Senegal	25.3	67.9	20.0	58.0
Guatamala	14.5	44.3	27.0	59.0
Nicaragua	13.6	34.7	12.0	60.0
Uruguay	5.4	2.9	7.0	61.0
Sri Lanka	7.9	9.9	38.0	63.0
Uganda	39.0	38.9	23.0	64.0

Continued…..

Country	E	L	M	S
Zambia	35.1	23.4	28.0	64.0
Zimbabwe	18.4	15.3	16.0	66.0
Congo	22.1	26.1	24.0	69.0
Iraq	15.4	43.2	12.0	70.0
Bhutan	33.2	58.9	38.0	70.0
Mexico	8.3	10.8	14.0	72.0
Mongolia	16.0	17.8	12.0	74.0
Ecuador	9.9	10.4	17.0	76.0
Kenya	22.3	23.0	23.0	77.0
Philippines	12.8	5.6	30.0	77.0
United Arab Emirates	3.6	21.4	6.0	77.0
Jordan	9.2	14.5	9.0	77.0
Dominican Republic	10.2	18.5	10.0	78.0
Trinidad and Tobago	5.4	2.1	7.0	79.0
Tunisia	10.5	34.8	9.0	80.0
Iran	11.7	31.4	16.0	81.0
El Salvador	11.7	29.1	11.0	81.0
Panama	6.2	9.5	7.0	83.0
Syrian Arab Republic	10.3	30.2	12.0	83.0
Costa Rica	4.1	5.3	2.0	84.0
Columbia	6.3	8.9	8.0	85.0
Tanzania	30.6	33.2	29.0	86.0
Honduras	10.8	28.0	18.0	87.0
Jamaica	4.3	15.6	10.0	89.0
Algeria	10.6	40.6	13.0	91.0
Cuba	6.2	4.6	1.0	92.0
Thailand	8.9	6.5	26.0	96.0
Libjan Arab Jamayriya	16.2	25.0	5.0	98.0
	6.2	17.6	16.0	99.0

Source: United Nations Development Programme (1997).

Notes:
- E: People Not Expected to Survive Beyond Age 40 (%), 1990.
- L: Adult Illiteracy Rate (%), 1995.
- M: Underweight Children Under Age 5 (%), 1990-96.
- S: Proportion of Population with Access to Sanitation (%), 1990-96.

Table 2: Poverty Rankings in 74 Countries

Country	E	L	M	S	Borda Score	Borda Rank
Cuba	67	72	74	71	284	74
Costa Rica	73	71	73	65	282	73
Trinidad and Tobago	70	74	67	59	270	72
Columbia	66	66	66	66	264	71
Panama	67	65	67	63	262	70
Jamaica	72	58	60	69	259	69
Uruguay	70	73	67	43	253	68
United Arab Emirates	74	50	70	54	248	67
Mauritius	67	54	45	74	240	66
Jordan	60	60	62	54	236	64
Thailand	63	69	32	72	236	64
Libyan Arab Jamayriya	41	46	71	73	231	63
Dominican Republic	58	52	60	58	228	61
Mexico	64	62	51	51	228	61
Paraguay	60	67	72	23	222	60
Ecuador	59	63	44	53	219	59
Syrian Arab Republic	57	40	54	63	214	58
El Salvador	52	42	58	61	213	56
Tunisia	56	35	62	60	213	56
Honduras	54	44	43	68	209	54
Algeria	55	31	53	70	209	54
Peru	48	61	58	38	205	53
Mongolia	42	53	54	52	201	52
Iran	52	38	45	61	196	51
Philippines	49	70	21	54	194	50
Zimbabwe	39	59	45	47	190	49
Sri Lanka	65	64	9	44	182	48
Nicaragua	47	36	54	42	179	47
Iraq	44	29	54	49	176	45
Kenya	35	49	38	54	176	45
Bolivia	37	55	45	35	172	44
China	62	51	45	13	171	43
Botswana	43	39	50	35	167	42
Congo	36	45	35	48	164	41
Morocco	50	15	62	23	150	40
Indonesia	45	57	15	30	147	39
Tanzania	18	37	24	67	146	38
Egypt	40	22	62	21	145	37
Guatamala	46	26	28	41	141	36
Cameroon	27	33	51	29	140	35
Viet Nam	51	68	4	9	132	34
Zambia	11	48	26	45	130	33
Lesotho	31	41	41	16	129	32
Ghana	30	34	28	35	127	31
Uganda	6	32	38	45	121	30

Continued…..

Country	E	L	M	S	Borda Score	Borda Rank
Senegal	28	5	42	39	114	29
Myanmar	25	56	6	25	112	28
Cote d'Ivoire	32	12	35	25	104	27
Central African Republic	10	30	28	32	100	25
Namibia	32	14	32	22	100	25
Togo	21	21	35	12	89	23
Nigeria	12	25	13	39	89	23
Zaire	19	47	17	5	88	22
Bhutan	14	15	9	49	87	20
Papua New Guinea	20	43	15	9	87	20
Guinea-Bissau	3	24	38	19	84	19
India	38	23	2	18	81	18
Pakistan	34	10	9	27	80	16
Haiti	23	18	26	13	80	16
Mozambique	2	13	28	33	76	15
Sudan	29	19	17	9	74	14
Bangladesh	24	11	1	28	64	12
Mali	21	3	20	20	64	12
Lao	15	27	5	16	63	11
Yemen	25	15	8	13	61	9
Burundi	12	7	12	30	61	9
Malawi	7	27	21	2	57	8
Madagascar	16	20	17	1	54	7
Guinea	5	8	32	8	53	6
Niger	3	1	13	33	50	5
Cambodia	17	9	7	4	37	4
Burkina-Faso	8	2	21	5	36	3
Sierra Leone	1	4	24	3	32	2
Ethiopia	9	6	3	7	25	1

Source: United Nations Development Programme (1997).

Notes:
E: People Not Expected to Survive Beyond Age 40 (%), 1990.
L: Adult Illiteracy Rate (%), 1995.
M: Underweight Children Under Age 5 (%), 1990-96.
S: Proportion of the Population with Access to Sanitation (%), 1990-96.
Borda Score: E+L+M+S
Borda Rank: Ranking According to the Borda Rule.

Table 3: Comparison of the Borda and HPI Rankings

Country	Borda Rank	HPI	HPI Rank	Difference
Trinidad and Tobago	72.0	4.1	74.0	-2.0
Cuba	74.0	5.1	73.0	1.0
Costa Rica	73.0	6.6	72.0	1.0
Columbia	71.0	10.7	71.0	0.0
Jordan	64.0	10.9	69.0	-5.0
Mexico	61.0	10.9	69.0	-8.0
Panama	70.0	11.2	68.0	2.0
Thailand	64.0	11.7	66.0	-2.0
Uruguay	68.0	11.7	66.0	2.0
Jamaica	69.0	12.1	65.0	4.0
Mauritius	66.0	12.5	64.0	2.0
United Arab Emirates	67.0	14.9	63.0	4.0
Ecuador	59.0	15.2	62.0	-3.0
Mongolia	52.0	15.7	61.0	-9.0
Zimbabwe	49.0	17.3	60.0	-11.0
China	43.0	17.5	59.0	-16.0
Philippines	50.0	17.7	58.0	-8.0
Dominican Republic	61.0	18.3	57.0	4.0
Libyan Arab Jamayriya	63.0	18.8	56.0	7.0
Sri Lanka	48.0	20.7	55.0	-7.0
Indonesia	39.0	20.8	54.0	-15.0
Syrian Arab Republic	58.0	21.7	53.0	5.0
Honduras	54.0	22.0	52.0	2.0
Bolivia	43.0	22.5	51.0	-8.0
Iran	51.0	22.6	50.0	1.0
Peru	53.0	22.8	49.0	4.0
Botswana	42.0	22.9	48.0	-6.0
Paraguay	60.0	23.2	47.0	13.0
Tunisia	56.0	24.4	46.0	10.0
Kenya	45.0	26.1	45.0	0.0
Viet Nam	34.0	26.2	44.0	-10.0
Nicaragua	47.0	27.2	43.0	4.0
Lesotho	32.0	27.5	42.0	-10.0
El Salvador	56.0	28.0	41.0	15.0
Algeria	54.0	28.6	40.0	14.0
Congo	41.0	29.1	39.0	2.0
Iraq	45.0	30.7	38.0	7.0
Myanmar	28.0	31.2	37.0	-9.0
Cameroon	35.0	31.4	36.0	-1.0
Papua New Guinea	20.0	32.0	35.0	-15.0
Egypt	37.0	34.8	34.0	3.0
Zambia	33.0	35.1	33.0	0.0
Guatamala	36.0	35.5	32.0	4.0
Ghana	31.0	36.2	31.0	0.0
India	18.0	36.7	30.0	-12.0

Continued…..

Country	Borda Rank	HPI	HPI Rank	Difference
Togo	23.0	39.3	29.0	-6.0
Tanzania	38.0	39.7	28.0	10.0
Lao	11.0	40.1	27.0	-16.0
Zaire	22.0	41.2	26.0	-4.0
Uganda	30.0	41.3	25.0	5.0
Nigeria	23.0	41.6	24.0	-1.0
Morocco	40.0	41.7	22.0	18.0
Central African Republic	25.0	41.7	22.0	3.0
Sudan	14.0	42.2	21.0	-7.0
Guinea-Bissau	19.0	43.6	20.0	-1.0
Namibia	25.0	45.1	19.0	6.0
Malawi	8.0	45.8	18.0	-10.0
Haiti	16.0	46.2	17.0	-1.0
Cote d'Ivoire	27.0	46.3	15.0	12.0
Bhutan	20.0	46.3	15.0	5.0
Pakistan	16.0	46.8	14.0	2.0
Yemen	9.0	47.6	13.0	-4.0
Bangladesh	12.0	48.3	12.0	0.0
Senegal	29.0	48.7	11.0	18.0
Burundi	9.0	49.0	10.0	-1.0
Madagascar	7.0	49.5	9.0	-2.0
Guinea	6.0	50.0	8.0	-2.0
Mozambique	15.0	50.1	7.0	8.0
Cambodia	4.0	52.5	6.0	-2.0
Mali	12.0	54.7	5.0	7.0
Ethiopia	1.0	56.2	4.0	-3.0
Sierra Leone	2.0	58.2	3.0	-1.0
Burkina-Faso	3.0	58.3	2.0	1.0
Niger	5.0	66.0	1.0	4.0

Source: United Nations Development Programme (1997)

Notes:
- Borda Rank: Ranking according to the Borda Rule.
- HPI: Human Poverty Index.
- HPI Rank: Ranking according to the Human Poverty Index.