MEASUREMENT OF POVERTY AND POVERTY OF MEASUREMENT

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1 INTRODUCTION

When public policy is targeted to reduce poverty it can be a good thing to be defined as poor. This is true for nation states and access to international aid as well as households and access, direct or indirect, to national funds. The definers and providers of information about poverty have a powerful role to play. They also provide the basis on which to evaluate how well different policies meet poverty reduction goals and, in one way or another, much of development studies is concerned with this type of evaluation. In measuring poverty, comparability between studies is a fundamental requirement if information about poverty from different contexts is to provide a coherent basis for policy formulation. Led by economists, the tradition of such studies has always been to utilize income as the measure by which to establish impact of policy on poverty. This tradition has of course been consistently attacked, perhaps no more so than it is today. Many alternative measures to evaluate the welfare effects of policy outcomes have been proposed. But, are the interests of poor households well-served by displacing income by some other welfare measure as the measure of poverty reduction achievement? This article argues that where absolute poverty remains the major concern the information provided through absolute and objective poverty lines is itself a source of empowerment for poor people. Such information can help increase public resource flows to anti-poverty programmes; and it can encourage better methods (e.g.. use of subjective evaluation and participatory implementation) in development practice, by providing reliable comparative assessment of alternative approaches.

Section 2 reviews the demise of theoretical welfare economics. The economist's historical attachment to income as a welfare measure was driven by the belief that efficiency and welfare were commensurable, implying that the unfettered market conditions for individual optimizing behaviour were both necessary and desirable. In fact, the welfare measuring claims of this tradition turn out to be extremely weak and hedged with qualifications for a variety of reasons, important amongst which was the difficulty of making rigorous welfare statements about changes in income distribution. This has encouraged a shift from aggregate income growth as a measure of progress to detailed examination of the distributional characteristics of income growth. In Section 3 we review the use of poverty lines as the chosen instrument for this task. These are typically applied at the household level; it is argued that despite problems of equivalence in defining such household measures, 'best practice' is now a powerful tool in understanding links between either aggregate growth or specific policy outcomes and poverty reduction (see e.g. Anand and Ravallion 1992). Modern use of poverty lines constitutes an effective response to the perceived need to move from assessment of aggregate income growth to evaluation of implementation using disaggregated assessment that focuses on distributional issues.

Section 4 introduces, in summary fashion, some of the better known attempts to provide alternative indicators of human development. It asserts that partial measures of this type, such as the Human Development Index, have limitations similar to those applicable to income-based measures of welfare and they tend to operate at a higher level of aggregation than the household base of poverty lines. In general, because of the need to know distributional effects, the higher the level of aggregation in estimating welfare gains, the lower the information content about the associated poverty reduction. Moreover, the development of a meaningful comprehensive composite welfare index faces seemingly intractable conceptual problems. An important conclusion from serious attempts to address these problems is the primacy attached to material needs. Whether the language is of primary goods, essential functionings or positive freedoms, human material needs take precedence over other aspects of human need. This should not be surprising but it should also alert us to the danger inherent in turning to welfare measures that do not do this. It is fashionable to advocate such measures both at national level - indicators of good governance etc - and at community level - quality of life indicators etc. When the supposed beneficiaries of development policies are suffering from acute material deprivation it is not self-evident that these represent an improvement over well-defined household-level income indicators.

This article can only sketch the arguments supporting this view; during a period when the practice of development is being stretched to accommodate multiple objectives, it seeks to emphasize the importance of having well-defined and relevant goals by which development practice can be assessed. Popular concepts in grass roots development practice such as participation, subjective evaluation and empowerment are crucial, but, where absolute poverty exists, they are crucial because of their influence in strengthening development practice rather than in broadening development objectives. Mainstream development economics, with its ever strengthening focus on distribution, is now less guilty of short-sighted advocacy of growth; careful poverty lines analysis provides the most appropriate means in many circumstances to evaluate the results of development practice.

2 INCOME AS A MEASURE OF WELFARE

It is common to define welfare in relation to achievement with respect to a set of human needs. Various sets of needs have been proposed - see e.g. Doyal and Gough 1991 and Greeley *et al.* 1992 - which are not always in agreement; however, there is broad agreement that income is an inadequate measure of welfare. To assert that it is adequate would be to subscribe to a narrow opulence theory of welfare which is clearly false. There is also broad agreement that income growth is a necessary condition for poverty reduction in developing countries. The problem arises because, for reasons of convenience, measurability or prejudice, welfare economists focus their attention exclusively on income growth and ignore non-income aspects of welfare. It would be foolish to try and argue with such critique of economism given the abundant evidence for it in the development journals; we shall argue that the substantive contribution of such critique lies in its implications for the implementation of development policies rather than the objectives of development policies. First, however, we briefly examine the very large literature which economists themselves have produced about the inadequacy of income as a measure of welfare.

Economic theories of welfare have a tradition going back over 200 years and modern welfare economics can trace its roots back to the work of Bentham in the 18th century. Despite the apparent glibness with which economists appear to associate income growth with welfare improvement, modern welfare economics has established that this is a heavily constrained theoretical result subject to a number of implausible and untestable assumptions. Whilst it could very reasonably be argued that it should not have taken 200 years to come to this conclusion, the lodestone of a unifying and rigorous scientific basis for analysis of economic behaviour drew economists forward. And today, the continuing power of this tradition is reflected in the slavish adherence of some right-wing economists and politicians to an unfettered reliance upon market forces.

'Income equals welfare' began with Bentham and utility theory. Utility was developed as the measure of the satisfactions provided through goods and services and increase in satisfaction was regarded as the normal aspiration of people. Given also that the satisfaction, or utility, derived from goods was identified as the source of happiness and that maximizing happiness (or the greatest good of the greatest number) is our individual and collective goal, efficient organization of production and exchange to maximize the availability of goods and services was a proper objective, if not a duty. Analysing the association of freely competitive markets with marginal cost pricing, of marginal cost pricing with efficiency, of efficiency with maximum growth and of growth with utility was the task of utility theory. Development of utility theory was driven by two forces. First, to excise the more extreme postulates that were clearly unsustainable in either logic or practice. Second, to provide a rigorous theoretical foundation for what was left.

One basic reformulation was to use the phrase 'economic welfare' rather than 'welfare' to describe what it was economists were trying to maximize. Although it is rarely obvious from economic papers, any normative conclusions from welfare economics are always subject to the qualification that considerations of other, non-economic, aspects of welfare, may effect the choice of action. A second notion quickly removed was a cardinal basis for utility. Instead, an ordinal basis was adopted in which economic outcomes were given preference rankings; ie. without any statement as to how much a preferred outcome was more preferred than an inferior outcome. This still left a problem with determining exactly what it was that was being improved when one shifted from a lower to a higher order preference ranking. The parsimonious answer to this was that preference ordering reflected increased choice. In other words, increased income resulted from increased production of goods and services and economic welfare

increased directly as a consequence of the greater choices available to the consumer. Of course, and famously, economists are quite unable to defend the proposition that consumers are in fact rational maximizers. Their behaviour is very often inconsistent and they are sometimes gripped with altruism, rather than the pursuit of material self-interest presumed by narrow theory. This criticism is not readily answerable but economists side-step it by asserting that, on the whole, consumers do act in roughly rational and predictable ways. Further, they hold that the conditions under which welfare is maximized on the assumption that consumers do act rationally is of considerable interest, even if sometimes they do not.

A further problem arose from the premise - based on intuition - that each increment of income produced less satisfaction or utility than the preceding one; in other words that there was diminishing marginal utility of income. On a cardinal based utility system with common consumer needs and preferences this would have implied that an optimal welfare solution would require an equal income distribution. Whilst modern economic welfare theory does not require this particular result it remains bedevilled by issues of income distribution. Ideological pressure from both left and right has encouraged search for a rigorous and relevant universal linkage between growth and welfare. This has been a vain search however, largely because of the issues raised by changing (household) income distribution. In evaluating economic outcomes, the method of economics can only describe the income consequences for different individuals; in order to assert that one outcome is better than another a value judgement has to be made. In fact, economists do make such value judgements all the time but it is rarely done so explicitly.

Whilst high rates of growth are **not** likely to wholly exclude the poor, welfare outcomes cannot be separated from issues of distribution. Some analysts argue that alternative measures, notably fiscal policies, are available to address the distributive effects of economic action; through this caveat they are able to conflate income growth and welfare improvement. The limitations of this even for developed countries are obvious and in developing countries, where fiscal instruments are under-developed, reliance on such an approach for poverty reduction has little chance of meeting social welfare objectives. However, despite this heritage, the large middle ground of modern development economics is well aware of this limitation and, through the development and application of distribution-sensitive social cost benefit analysis and other instruments of modern economic planning, has maintained a strong analytic focus on the relationships between economic growth, income distribution and the economic welfare of households.

Whilst the aspirations of welfare economics have gradually been reduced, as described above, the theoretical foundations have become increasingly rigorous. Utility theory was further developed with the publication by Pigou of The Economics of Welfare, (1920). Pigou in fact started by dismissing the term utility, replacing it with the term 'desiredness'. This was to avoid use of value judgements by the argument that 'desiredness' was a descriptive term based upon observation of consumer behaviour. This was mere semantics and failed to distinguish between needs and wants but his work did provide more rigour than before on the way in which aggregate economic welfare was served by optimum conditions of production and exchange; he also addressed in detail the problems associated with the diminishing marginal utility of income and the need for, and consequences of, redistributive policies. Welfare theory was further refined by Pareto, who introduced the concept of ordinal utility, and established the conditions for the so called Pareto 'optimum'. This was the first fully developed statement of how a competitive equilibrium yielded an economic welfare optimum given resource endowments, and became known as the New Welfare Economics, to distinguish it from cardinal utility theory. The Pareto optimum required that nobody could be made better off without somebody else being made worse off; unless one has no concern about the distribution of income this of course is not a statement about welfare maximization. The theory of how the operation of free market forces yields a Pareto optimum outcome was stated most rigorously by Arrow and Debreu (see Lal 1983: 11-12) who, in doing so, also made abundantly clear the very restrictive assumptions that would have to hold in order for the theory to be valid. They were less restrictive than earlier formulations (old welfare theory) would have required but they were still characterized by extraordinary dissimilarity with real world conditions. Whilst they no longer required common endowments, common preferences, or equal incomes they did require stable preferences and perfect competition in perfect markets. This theoretical establishment of the linkage between the operation of market forces and

Pareto efficiency could be linked to a welfare maximizing outcome through redistributive taxes provided they in themselves did not induce distortions. A lump sum tax (or subsidy), based upon potential earnings, was identified as one such non-distorting redistributive mechanism. In practice, such lump sum taxes are neither possible to specify nor to implement.

Given the continuing failure of the real world to correspond to anything approximating the theoretically required conditions for welfare optimising policies, economists were forced to salvage what they could of their theory from the world they lived in. In his critique of welfare economics, Little (1957) argued, based on careful analysis of the main proprositions of welfare economics, that the strongest tenable claim consisted of two sufficient criteria for an economic change to be desirable: '(a) if it would result in a good redistribution of wealth and (b) if the potential losers could not profitably bribe the potential gainers to oppose the change' (Little 1957: 275). This involved a move away from the historic concern of welfare economics with the pursuit of an 'optimum' and focused attention on the comparative static analysis of obtainable outcomes. This is what has come to be known as 'the welfare economics of the second best', of which the Little and Mirrlees (1974) manual on cost benefit analysis, is one of the best applied examples. One of the crucial results of 'second best' economics is that moves in any one market towards perfect competition may be sub-optimal when the economic system as a whole is analysed. In other words, there should be no presumption that piecemeal adoption of laissez-faire policies will contribute to aggregate economic welfare. Also, it should be clearly recognized that Little's two sufficient conditions are subject to value judgements in order to make them operational. One has to decide what a good redistribution of wealth is and one has to agree (this is probably not too difficult) that an increase in choice for any individual - via improved income - does in fact involve an increase in welfare.

As the cornerstone of standard economics, the theoretical result that free market determination of output and exchange implies efficiency of resource use still carries scientific and logical appeal and habitually, implicit or explicit presumptions are made about equating such efficiency to welfare gains. This appeal has been responsible for influencing development planning, particularly during tha last decade, to be less interventionist than, with hindsight, was probably justified. This is clearly reflected in current poverty reduction strategies which are much more macro-economic and market-oriented in design than two decades ago. Nevertheless, the recent re-emergence of poverty reduction as the clearly identified goal of development is itself evidence of some conciliation. The ideological battleground of development economics has become less fierce but is still occupied by those who, to varying degrees, adhere to this growth equals welfare belief and support neo-smithian economics and those who believe that state intervention, carefully implemented, will serve economic welfare better than an imperfect market. Lal (1983: 16) refers to such state interventions as '... miracle cures pedalled by quacks which are adopted because of faith rather than reason'. Given the state of modern welfare theory the description could equally well apply to the dogmatists of the new right who preach the welfare foundations of *laissez-faire* economics despite the flimsiest of theoretical support, which anyway has little relevance in the real world. Economic theory cannot arbitrate and development practioners have rightly concentrated on questions of positive economics; i.e. poverty reduction requires increases in income, but under what circumstances does national income growth actually result in poverty reduction? Numerous studies have examined this question. Theory demonstrates that all answers depend on explicit value judgements and that understanding welfare outcomes requires a detailed analysis of the impact on income distribution. What all such analysis requires is a definition of the poor and measures of how policies impact upon their poverty. It is to these that we now turn.

3 USE OF POVERTY LINES

These theoretical developments established the inadequacy of unfettered free market production and exchange as an optimum growth path and the inadequacy of average income growth as a measure of welfare improvement. Whilst the early years of development economics in the 1950s had been almost exclusively concerned with average income growth, by the 1970s development theory and practice was paying increasing attention to issues of income distribution. This development was not directly a result of the demise of theoretical welfare economics as described above; it was more a result of the perceived failure of development strategies to have significant impact on absolute

poverty. The widespread adoption of Basic Needs strategies in developing countries was a response to this dissatisfaction with achievements on poverty reduction. There was a concern to be more specific about the precise way in which income growth impacted upon the quality of human life (Seers 1972) and a concern to focus more explicitly on the way in which average income growth was distributed between poor and non-poor households.

This first concern, with the relationship between income growth and human development, is discussed in the next section. Before that, we make some observations on the way in which income measures have been developed to analyse poverty, i.e. the use of poverty lines. In doing so we will argue that, despite trends to the contrary, an absolute and objectively determined poverty line is the most appropriate means of measuring poverty.

The conventional approach to the development of a poverty line is to define it in terms of a consumption, expenditure or income level sufficient to meet primary human needs. There are very strong practical arguments in favour of consumption as the unit of measure; however, income, properly calculated, is satisfactory for poverty line estimation and, for the sake of continuity, we refer here to the poverty line as an income level. This is usually defined as a point on the income distribution curve where, given the share of food and non food expenditure in total expenditure, income is sufficient to buy a nutritionally adequate diet. In other words, the poverty line consists of the cost of a nutritionally adequate diet multiplied by the inverse of the Engel's co-efficient for food (Hagenaars 1986). Since this co-efficient tends to fall as income rises (though not consistently - see Lipton 1983) some form of averaging across income size groups is often involved since otherwise the poverty line would tend to rise from one income size group to the next. This apparently straightforward definition, which takes account of non-food material needs through reference to actual local expenditure patterns, requires great care in operationalization to ensure all net income - cash and non-cash - is included.

In practice, there are a number of significant accounting problems with respect to ensuring equivalences in the measures used. Concern about equivalence problems has often led to scepticism about the utility of the poverty line approach to poverty assessment, but 'best practice' has become increasingly able to address such problems. Moreover, these equivalence problems are important because they concern the precision with which the line can be measured at household level and **not** because of the selection of any particular line. Nor is the derivation of poverty lines on a 'food-need plus' formula singling out food as the only need accounted for. The precise selection of a line that covers material needs is, within some small range, a matter of convenience in a matter about which there is no basis for great loyalty to any particular value. It involves an empirically-informed value judgement designed to reflect the income need for meeting basic material needs. There is necessarily some degree of error for any specific household but since the main use of poverty lines lies in comparative analysis over time or between groups of households great precision in setting the line is less important than **consistent** application.

The first and most fundamental problem is determining what a nutritionally adequate diet is. It is usually taken to be the cost of obtaining sufficient calories on the basis that other nutrients will, by and large, be adequately met, but there has been controversy surrounding the notion of sufficient calories. The international norms originally used for human caloric need have been found to be excessive and have gradually been reduced as a result of empirical findings over the last 30 years. Factors such as climate and body weight had not been adequately incorporated in the original measures that depended only upon age, sex and activity group. Even with these adjustments there remains concern about the adequacy of any one nutritionally based poverty line because of variation in individual adaptation to nutritional stress. However, such adaptation may not be costless, particularly if it is associated with change in chosen activity patterns, very possibly with consequent income implications. Moreover, it may be detrimental to physical health. And, whilst no final judgement has been made, it appears on present evidence that there is not a strong case for adjusting poverty lines because of such individual adaptation. Of course, operationalization of such adjustment would raise complex data issues. This first problem of equivalence is linked closely to the questions of what dietary staples should be utilized in determining the physical quantities of food required to meet specific calorie intakes and at what unit prices. However, these are both

questions open to empirical verification and, properly conducted, price, income and consumption surveys can adequately address this task. We should observe that 'proper conduct' of such surveys will inevitably require prior qualitative and participative assessment of consumption habits and food sources.

There is, of course, variation both within and between households in the capacity of individuals to convert given levels of income into energy intake. Since poverty line analysis is usually conducted at the level of the household grouped by socio-economic categories, these sources of variation will often not be reflected in the specification of poverty lines. One problem in addressing such issues of variation is that they can cause both over and under estimates of the poverty line. Indeed, it has frequently been observed that in many surveys there are large numbers of poor households who are living well below the specified poverty line and yet very much surviving. A large part of the explanation for such cases may be that income has been underestimated; however, it could also be that such households draw upon the village moral economy in ways in which income measures cannot readily capture. In other cases, e.g. intra-household distribution where some groups, (usually women and female children), receive a lower proportion of their need than other groups, the adjustment would be an upward one. The use of the household as the unit of analysis is also a source of difficulty or error where household membership is partial (in various possible ways). However, since much expenditure is typically collective the household is the lowest feasible disaggregation.

These problems of equivalence - and others such as family size, seasonality and indexing for inflation - are important, but mainly only so far as they effect the precision of the estimate and not because they effect the fundamental conception of this approach to poverty measurement. They are counting problems rather than concept problems and over thirty years of developing country experience with data collection for poverty line analysis has allowed considerable progress in eliminating such sources of variation. The major use of poverty line estimates is to analyse change in poverty condition over time; whilst it is very likely that these sources of variation reduce the precision of household-based poverty estimates this is unlikely to be the source of substantial error in estimation of poverty trends over time. In general, these variations **do** require us to be extremely cautious in comparing poverty estimates between regions wherever these sources of variation may have substantially different implications for the relationship between income and food intakes.

One response to such problems has been to argue in favour of subjectively determined poverty lines. These involve asking individuals what they consider to be an adequate income level based entirely on their own perceptions of what adequacy entails. On the face of it, it seems intuitively reasonable when enquiring about poverty of households to ask them directly but it is very difficult to give any analytic content to the answer to such questions. The information content of a subjectively determined poverty line is clear but limited. Crucially, it provides no basis on which to make a resource allocation decision (e.g.. for an anti-poverty programme) that contains an implicit judgement about the degree of absolute poverty. This is because there are no guarantees that every household has the same idea of what adequacy entails and therefore there is no basis for interpretation of results. There is evidence of tendencies for very poor households to underestimate income needs and for almost all other households to overestimate. Moreover, unless carefully developed, such questions are open to the same sources of inter- and intra-household variation as the objectively defined income measure. There is of course strong justification for more participatory approaches that increase the accuracy of the data collected; this is a laudable but very different objective to subjective assessment of poverty condition.

Another trend in the use of poverty lines has been the increasing use of **relative** poverty lines. These are not trying to establish an absolute income need, but to establish a minimum income requirement relative to the prevailing income levels in the population concerned. This may be developed as some fraction of average income or may involve a minimum consumption bundle, usually considerably more elaborate than what would be included in an absolute poverty measure. Such measures are clearly of great relevance in countries where absolute poverty is no longer a major phenomenon. This is true in studies of poverty in Europe for example (see Hagenaars 1986). However, in poor countries, use of relative poverty lines diverts attention away from the basic needs of the poorest households.

Whilst the ethical basis for policy prescription based on analysis of absolute poverty lines is reason-

ably clear, this is not so for either subjective or relative poverty lines. Whilst subjective and relative assessments have uses, it is absolute and **objective** poverty lines that provide relevant information for poverty reduction policy. However, the notion of an 'objective' poverty line is sometimes challenged on the grounds that it is epistemologically invalid because it implies a single 'reality' and is merely an attempt to imply scientific rigour about something which is only somebody's value judgement. In fact, no great claims are actually being made when the term 'objective' is used; the purpose is to establish that the line is not locally determined on a subjective basis but reflects a set of needs that are universal. This implies detachment from any specific individual's assessment; it also implies quantifiable measurement, reproducibility, systematic comparison and validation (see Patton 1990). It is precisely these qualities which allow absolute and objective poverty lines to be a source of empowerment to the poor - rather than to poverty analysts and their employers - by providing a systematic basis to evaluate the effectiveness of either aggregate economic growth or specific policy packages for poverty reduction.

There is an emerging consensus, after a great deal of analysis of what are appropriate poverty and inequality measures (see for example Sen 1973; Glewwe and van der Gaag 1988; Ravallion 1992), around a set of measures known as the Foster, Greer and Thorbecke set. They take the general form:

$$P = 1/n \, \Sigma \, (1 - y_i / y_x)^{\alpha}$$

where the poverty measure (p) is a function of the total number (n) of households and the incomes of that sub-set whose income (y_i) is below the poverty line (y_x). Varying the parameter (α) from 0 to 1 to 2 provides estimates respectively of the numbers of poor people and the intensity and severity of their poverty. There remain significant problems in data collection, particularly related to the equivalence problems discussed above, but these poverty lines, when properly and accurately estimated, are now sophisticated and reliable indicators of trends in poverty as defined. The adequacy of this definition is discussed next.

4 INCOME AND HUMAN DEVELOPMENT

The absolute, objective poverty line discussed above has been adopted widely as the most appropriate measure for the impact of national development on poverty reduction. To the extent that the distribution of international and national public resources is determined by relative incidence of poverty between countries and between households, poverty lines are much more than a mere descriptive instrument. Also, sometimes in combination with other data, such as life expectancy or education levels, they are utilized to assess the poverty reducing impact of specific policies; such evaluations can be crucial in determining the design of future policies. But if, as we all agree, income growth and human development are different things, then how much does development measured by changes in poverty lines reflect what we really mean by development? To the extent that we are concerned with the capacity to influence events through public policy we can restrict 'development' by specifying only those aspects of human development which are amenable to policy intervention. This may not narrow the scope very much since most aspects of human development are influenced by some aspect of policy. However, it is important to remember the context in which we are operating. We are not concerned with human development in general but with human development of poor people in particular. Some things, which though desirable, only become feasible or significant at a higher level of well-being may reasonably be considered less fundamental than those needs which are directly addressed by the income measure. For example, a pleasant place in which to live and to work are important aspects of human development but we may not attach the same significance to them as we would to provision of food and shelter.

There have been several attempts to provide alternative development indicators to income. The Physical Quality of Life Index and the Human Development Index are the two best known of these. However, it is questionable if they do in fact provide improved means to assess the well-being of poor people. Like income, they are also partial, in each case being equally weighted composites of just three indices. Moreover, they are not suitable indicators for use at household level. Their application is usually at national level, (though some regional indices, for example for India, have been calculated); in this they are more akin to national income estimates and suffer from the same aggregation defects. They do not have the precision or the location specificity that is possible with poverty line estimates.

The development of a comprehensive poverty indicator would have to depend upon a more compelling assessment of fundamental human

need than now available. Desirable though this objective is, it is something that, it is generally agreed, is not practicable given the diversity of human needs. Of course, there have been many attempts to go beyond utilitarian principles to develop an ethical basis for a theory of distribution founded on prescription of a set of human needs considered primary or fundamental.

One of the best known of these is Rawls's theory of justice (see Daniels 1975), in which he develops a basis for organization of social institutions according to two key principles. The second of these, the so called difference principle, is a maximin solution to the distribution problem in which the decision rule is based upon maximization of the life prospects of the worst off. But, in specifying this need, Rawls operates at a very abstract level and, for example, does not describe or list what minimum needs of the worst-off might consist of. They are a set of primary goods of which, above some minimal level of well-being, liberty is the most important. The content of the other members of this set is not adequately dealt with. In particular, material needs are clubbed together under income.

Amartya Sen (1985) has also developed a rights-based theory of distribution, based upon the need for individuals to achieve a certain essential set of 'functionings'. In his theory, income is one source of entitlement which gives rise to the capacity to purchase commodities, the characteristics of which allow individuals to achieve certain capabilities; these capabilities allow individuals to perform functions, a set of which are regarded as basic or primary. His work has been of great influence in development, for example in the reasoning behind the Human Development Index, but he also does not provide any account of what might be considered to be a full set of essential functionings.

A more recent attempt to develop a theory of human need (Doyal and Gough 1991) builds on the work of Rawls and Sen to develop a comprehensive list of needs specified through a set of universal satisfier characteristics. In any specific setting, these are derived from a set of intermediate needs satisfiers. Doyal and Gough do develop a set of suggested indicators for such needs, which relate to their contribution to health and autonomy - regarded as the first order goals. In essence, they are providing a more theoretically rigorous derivation of a set of basic needs. However, they too do not provide a basis for weighting these different needs or of aggregating them.

In all three of these approaches to human need there is a recognition of the primacy of material need at low levels of well-being. An emphasis upon income measures therefore has support from such theory. This is the case even for Rawls who, at higher levels of material well-being, gives precedence to liberty. Drawing on these theories, criticism of income as a measure of policy-induced poverty-reduction achievement seems to be misplaced when the groups we are talking about are characterized by absolute poverty. It follows also that attempts to incorporate other aspects of development, beyond material needs, are relevant and justified only in so far as they provide additional benefits without sacrifice of the material benefits that can be presumed to result from incremental income. Now, it may well be that an appreciation of other needs such as empowerment may result in a better organization of development practice; however, where absolute poverty is concerned the objective of dealing with material needs first should be maintained.

5 CONCLUSION

Critique of an income-based concept of welfare is justified on theoretical grounds, but, so far as the absolutely poor are concerned, income remains a primary need of higher rank to many other things that can legitimately be argued as a component of human need. Despite the recognized inadequacy of income as a measure of poverty there is a justification for keeping income as our unit of measure where absolute poverty dictates the primacy of material needs. An absolute and objective poverty line is a form of information that empowers the poverty reduction agenda and encourages appropriate resource allocations. Arguments in favour of alternative approaches to development are justified not because they seek to maximize some other objective than increasing the income of the poor but only because they can offer an alternative and better route to meeting this objective. Ends and means should not be confused; only when absolute poverty is no longer the core issue should our measure of development encompass a broader agenda of human need. The strategy to achieve that result will almost certainly involve institutional arrangements that serve other human needs but, to quote Michael Lipton 'You must be before you well-be'.

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