

INEQUALITY REEXAMINED

AMARTYA SEN

RUSSELL SAGE FOUNDATION • NEW YORK
CLARENDON PRESS • OXFORD

POVERTY AND AFFLUENCE

7.1. INEQUALITY AND POVERTY

The mainstream approach to identifying poverty specifies a cut-off 'poverty line', defined as the level of income below which people are diagnosed as poor. The conventional measure of poverty, still widely used, proceeds from here to count the number of people below the poverty line—the so-called 'head count'—and defines the index of poverty as the proportion of the total population that happens to be below the poverty line (i.e. the fraction of the population identified as poor). This gives a neat and well-defined measure, and it is not hard to see why it has been so widely used in the empirical literature on poverty and deprivation.

The measurement of poverty can be seen as consisting of two distinct—though interrelated—exercises, viz. (1) *identification* of the poor, and (2) *aggregation* of the statistics regarding the identified poor to derive an overall index of poverty. In the traditional 'head count' approach, the identification exercise is done through the use of the 'poverty line' income as a cut-off. Then, the aggregation is done simply through counting the number of the poor, and calculating the proportion H —the 'head-count ratio'—of people below the poverty line. Both the exercises are, in this approach, thoroughly dependent on seeing deprivation in terms of *low income* as such.¹

But, in addition, the *aggregation* exercise done through simple head counting pays no attention to the fact that people could be *a little* below the line, or *a lot*, and also the distribution of income among the poor *may or may not* be itself very unequal. It is this lacuna in using H as a measure of poverty that has received a tremendous amount of attention in the recent literature on formal measures of poverty. I shall first discuss that development in the 'aggregation' exercise, before turning, in the next section, to the first

¹ In principle, the 'head count' measure can be used with some other way of identifying the poor, rather than relying only on low income. In practice, however, it has been used almost invariably only with a low-income dividing line.

question, viz. the use of *low income* as the main characteristic of poverty, which influences both 'identification' and 'aggregation'.

There is, in fact, another aggregate statistic, like the 'head count' ratio, that has also been used—though not quite so widely—in the traditional literature.² This is the so-called 'income gap', which measures the additional income that would be needed to bring all the poor up to the level of the poverty line, i.e. the minimal extra income that would be sufficient to wipe out poverty—in the form of low income—altogether. This 'gap' can be expressed in per capita terms, viz. the average shortfall I of income of the identified poor from the poverty line.³

Note that just as the head-count ratio H is completely insensitive to the extent to which the incomes of the poor fall short of the poverty line and takes note only of the number below the line, the income-gap ratio I is completely insensitive to the number of heads involved and takes note only of the average gap of the income of the poor from the poverty line. It is natural to think that the two must complement each other, since they address different aspects of poverty. The need to put H and I (or similar indices) together is, thus, obvious enough.

It can now be asked whether the two *together* would provide an adequate informational base for poverty measurement (still sticking to the idea that poverty is best seen as *low income*)? The answer, briefly, is: no. H and I together still cannot be adequate, since neither pays any attention to the distribution of income *among* the poor. For example, a transfer of income from a poor person to one *less* poor but also below the poverty line (before and after the transfer) would leave *both* the values of H and I completely unchanged. But it can certainly be argued that aggregate poverty is *increased* by this transfer, since the *poorer* person is *even poorer* now, and this intensification of the more acute deprivation cannot be outweighed by the increase in the income of the person who was less poor even to start with. Hence we need some other statistic, presumably some measure of inequality in the distribution of income among the poor. Let us call such a measure of inequality among the poor D .

² See Beckerman (1979), Anand (1983), Beckerman and Clark (1982).

³ There are also other ways of normalizing this, such as a proportion of national income needed to wipe out the poverty gaps of every identified poor person. See Anand (1977), Beckerman (1979).

It is easy to construct an axiomatic derivation of a poverty measure that is sensitive to all these three related but distinct considerations (still sticking to the idea that poverty is best seen as low income). This would make the axiomatically derived aggregate poverty measure P a function of H , I , and D . The axioms that I had, in fact, presented in Sen (1973c, 1976a) led to the identification of the inequality measure D of the distribution of income among the poor as the Gini coefficient G , and it thus led to a poverty measure P that depended on H , I , and G .

The axioms, postulated in a specified format of measurement, included accepting the informational sufficiency of H and I together in the special case in which all the poor had the *same* income (so that the question of inequality *among* the poor would not, then, arise).⁴ In fact, in this special case the poverty measure was simply taken as the product of the two, i.e. HI . The axioms also demanded that when some of the poor are poorer than others, then the per-unit weighting of the income shortfall of each poor person must increase with his or her poverty rank, i.e. the poorest poor would have the highest weight and the richest poor the least. Taking the special case of 'rank-order weighting' giving a weight of n to the income shortfall of the n -th richest among the poor, a very specific measure of aggregate poverty emerges, which takes account of the inequality of the distribution of income among the poor through the use of the well-known Gini coefficient.⁵

Rank-order weighting has been extensively used in social-choice theory beginning with the classic use of this 'ordinal' approach to voting decisions by the French mathematician Borda (1781), and this procedure—and the general 'positional' approach underlying it—provide useful ways of 'weighting' competing claims with simple ordinal information.⁶ It is interesting—and rather useful from a practical point of view—that the Borda method of weighting leads to the Gini coefficient in the special case of inequality

⁴ This is not at all a demanding restriction; on this see Foster (1984: n. 27).

⁵ The exact formula is the following: $P = H[I + (1 - I)G]$. For proper statements of the axioms and the proof of the theorem deriving this exact measure, see Sen (1976a). Note that in the special case in which all the poor have the same income, G would be zero, and thus P would equal HI .

⁶ On the use of rank-order method in social choice theory, see Arrow (1951), Sen (1970a), Suzumura (1983). In the context of measurement problems in economics and development studies, the possibility of using the positional approach in general and the Borda rank-order method in particular has been explored in Sen (1974, 1976a, 1976b, 1981b).

measurement, which is one of the most common measures of income inequality.⁷

The so-called Sen measure of poverty and related distribution-sensitive indicators have been used *inter alia* in many practical exercises in evaluating poverty, and these empirical works—related to Bangladesh, India, Iran, Malaysia, United States, Brazil, and several other countries—have been done with much care and skill.⁸ Despite my scepticism of the appropriateness of the so-called Sen measure and other indicators that diagnose poverty in terms of *low income*, I would not dispute the analytical and practical contribution made by these empirical works through the use of distribution-sensitivity in evaluating poverty.

The concentration on the income space is often hard to avoid given the comparatively greater availability of income statistics rather than other types of data.⁹ *Within* that informational format, the traditional use of the head-count ratio as a measure of poverty can deflect anti-poverty policy by ignoring the greater misery of the *poorer* among the poor. Indeed, with the head-count ratio as the measure of poverty, any government faces a strong temptation to concentrate on the *richest* among the poor, since that is the way that the number of the poor—and the head-count ratio *H*—can be most easily reduced.¹⁰ Recasting the empirical measurement of poverty in

⁷ On the characteristics of the Gini coefficient, see *OEI*, ch. 2. On the properties of the Gini coefficient, Lorenz-curve comparisons, and related matters, see Graaff (1946, 1977, 1985), Kolm (1969), Atkinson (1970b), Newbery (1970), Sheshinski (1972), P. Dasgupta, Sen, and Starrett (1973), Sen (1974, 1976b), Pyatt (1976, 1987), Cowell (1977), Blackorby and Donaldson (1978, 1980), P. J. Hammond (1978), Yitzhaki (1979), Kakwani (1980b), Roberts (1980b), P. K. Sen (1986), Seidl (1986a).

⁸ See Ahluwalia (1978), Alamgir (1978), Anand (1977, 1983), Bhatti (1974), Sastry (1977), Seastrand and Diwan (1975), Clark and Hemming (1981), Szal (1977), Dutta (1978), Fields (1979, 1980a), Fishlow (1980), Gaiha and Kazmi (1981), van Ginneken (1980), Kakwani (1980b, 1981, 1986, 1988), Sundaram and Tendulkar (1981), Osmani (1982), Pantulu (1980), Sastry (1980a, 1980b), Hemming (1984), Ray (1984b), Gaiha (1985), Babu (1986), and others. There have been a number of other important empirical studies in similar lines in more recent years.

⁹ This applies even to the use of *income* as opposed to *expenditure* statistics. The case for using the latter on grounds of greater relevance is often very strong, but actual use is nevertheless restricted because of the difficulty of obtaining reliable expenditure information. On this see Atkinson (1989: ch. 1).

¹⁰ On the relevance of this type of consideration for the Indian debates on poverty, see Sen (1973c), Ahluwalia (1978), Dutta (1978), S. R. Chakravarty (1981), L. Chakravarty (1986). The policy implications of the neglect of distributional issues in insensitive measures of deprivation is, in fact, a pervasive problem which crops up in different contexts. For example, if the extent of homelessness is judged just by the

a distribution-sensitive way has the effect of making *comparatively better* use of income data (despite the overall limitations of that income-based informational base).

The need for having distribution-sensitivity in measuring poverty seems to be fairly widely accepted by now, and various other distribution-sensitive measures of poverty have also been suggested in the theoretical literature, taking some other inequality measure *D* among the poor, and using other mathematical forms of combination.¹¹ I shall not comment on the relative merits of these different measures and assess the distinct ways of taking note of the three aspects of the problem of deriving an aggregate measure of poverty.¹² The major issue in the context of measuring poverty in the income space seems to me to be the need to pay attention to *all* the three aspects—particularly to incorporate distribution-sensitivity (rather than insisting that this incorporating be done in some very *specific* way).¹³ And the primary issue in the more general context, to be addressed in the present study, is the questioning of the relevance of the income space itself for the measurement of poverty. That

number of people without a proper home, the temptation to deal with more easily remediable cases—irrespective of the extent of homelessness or the intensity of the misery resulting from it—can be very strong.

¹¹ See particularly Anand (1977, 1983), L. Taylor (1977), Drewnowski (1978), Hamada and Takayama (1978), Takayama (1979), Thon (1979), Blackorby and Donaldson (1980), Fields (1980a), Kakwani (1980a, 1980b, 1981), Sastry (1980a, 1980b), S. R. Chakravarty (1981, 1983a, 1983b), S. Clark, Hemming, and Ulph (1981), Osmani (1982), Kundu and Smith (1983), Foster, Greer, and Thorbecke (1984), Foster (1984), Ray (1984a), Bigman (1985, 1986), Lipton (1985), Cowell (1986), Donaldson and Weymark (1986), Jorgenson and Slesnick (1986), Seidl (1986a), Atkinson (1987, 1989), Lewis and Ulph (1987), Pyatt (1987), R. N. Vaughan (1987), Besley and Kanbur (1988), Buhmann *et al.* (1988), Foster and Shorrocks (1988a, 1988b, 1991), Ravallion and van de Walle (1988), Smeeding, Rainwater, and O'Higgins (1988), Bourguignon and Fields (1990), Pattanaik and Sengupta (1991), among other contributions.

¹² One issue that has received much attention is the insistence on 'separability' in poverty measures. Separability is certainly convenient property, and permits us to build up the overall poverty picture from the poverty measures applied to subgroups. The requirement has much cutting power. There is a helpful technical literature on this and related issues, including their implications (see Anand 1983; Foster 1984; Foster, Greer, and Thorbecke 1984; Cowell 1986; Foster and Shorrocks 1991). There remains a more general question as to whether it is sensible to assume that poverty indicators should be combinable in this way, which requires that the view of poverty for particular groups be, in some specific ways, insensitive to what happens to other groups, and that the whole picture does not introduce anything other than what is already there in the parts.

¹³ See, however, the critical and comparative analyses presented by Foster (1984) and Seidl (1986a), and also the general methodological critique presented by Atkinson (1987, 1989). See also Sen (1981a, 1983d).

critical examination would apply to *all* the different measures that share this concentration on seeing poverty in terms of low income.

7.2. THE NATURE OF POVERTY

Consider two persons 1 and 2—person 1 has an income level somewhat lower than that of 2. But 2 has a kidney problem and needs to use a dialysis machine which costs him a lot, and he has also a much more impoverished life than person 1. Who is the poorer of the two—person 1 because his income is lower, or person 2 because his capability set is more restricted?

The question may sound like one of pure semantics. It might even be tempting to take the view that it does not matter at all whom we *call* 'poorer', as long as we define our terms clearly enough. That bit of philosophical 'nominalism' does make some sense, but the fact also remains that 'poverty' is a major evaluative concern in most societies, and how we identify poverty is a matter of some practical moment in the contexts in which questions of this kind are posed. So here we do have a substantive issue. While the term poverty is used in rather different ways, there are some clear associations that constrain the nature of the concept, and we are not entirely free to characterize poverty in any way we like.

The question can be given both *descriptive* and *policy* forms. In the first view, the identification of poverty is an acknowledgement of deprivation. It may lead to a policy recommendation also, but that is a derived feature, and the first exercise is one of deciding who are truly deprived as these things are judged in the society in question. The second view simply identifies poverty with a policy recommendation, viz. an assertion that something should be done by society to encounter these deficiencies.¹⁴ In the second view poverty is primarily a matter of identifying the focus of public action, and its descriptive meaning is only derivative. In contrast, the first view makes the description primary and the policy conclusion derivative.

Again, it may be a mistake to spend much time on sorting out which of the two views to take. I have tried to argue elsewhere that there is a case for sticking to the first—primarily descriptive—view, so that diagnosis *precedes* policy choice.¹⁵ This is also important in

¹⁴ See Beckerman (1979) for a discussion of the policy-related view of poverty.

¹⁵ The arguments are presented in Sen (1979e, 1981a). I have to confess that while I haven't changed my position on this, I don't now attach as much importance to the contrast as I then evidently did.

order to make sure that the non-availability of public resources to help eliminate severe deprivations should not make us redefine poverty itself. For example, if the state and the society lack the means to alleviate extreme economic hardship, that would be a conclusive reason against a policy recommendation to counter that deprivation through using the necessary—but non-available—funds.¹⁶ But that fact in itself should not make us decide that there isn't much poverty around (as we would be obliged to say, *if* we were to define poverty entirely in terms of the recommended choice of policy).

A policy recommendation is contingent on feasibility, but the recognition of poverty has to go beyond that. One can argue that the first step is to *diagnose* deprivation, and related to that, to determine what we *should* do *if* we had the means. And then the next step is to make actual policy choices in line with our means. In this sense, the descriptive analysis of poverty has to be *prior* to the policy choice.

But how should that descriptive analysis of poverty proceed? Just because it is a primarily descriptive exercise, we should not make the mistake of thinking that the analysis must be somehow *independent* of the society in which poverty is being assessed. Even the demand of 'objectivity' in description does not really require *social invariance*, as it is sometimes supposed. What is seen as terrible deprivation can, of course, vary from society to society, but from the point of view of the social analyst these variations *are* matters of objective study.¹⁷ We could, of course, debate about the exact ways in which normative judgements should take note of such social variations, but the primary exercise of diagnosing deprivation cannot but be sensitive to the way various types of hardships are viewed in the society in question. To deny that connection is not so much to be super-objective, but to be super-dense.

The existence of social variations does not, of course, rule out various agreements on what is to count as serious deprivation. Indeed, it can be argued that if we concentrate on certain basic general functionings and the corresponding capabilities, there may be much more agreement on their importance, than there would be if we concentrated on particular commodity bundles and particular ways of achieving those functionings. For example, there is likely to be

¹⁶ This claim relates to the old dictum: 'ought implies can'. On this philosophical issue, see Hare (1952).

¹⁷ This issue has been discussed in Sen (1980b).

more intercultural—and also interpersonal—agreement on the importance of having the capability to avoid acute hunger or severe undernourishment, than on the significance of having an adequate supply of particular food items (e.g. some specific types of meat or fish or grains or pulses) to serve those functionings. To take another type of examples, there may be more agreement on the need to be entertained, or to have the capability to take part in the life of the community, than on the form that entertainment must take, or on the particular way the life of the community may be shared.¹⁸

This is, in fact, one reason why poverty is better seen in terms of capability failure than in terms of the failure to meet the 'basic needs' of specified commodities. The 'basic needs' literature and the related studies on the 'quality of life' have been enormously helpful in drawing attention to deprivations of essential goods and services, and their crucial role in human living.¹⁹ The underlying motivation can perhaps be more directly addressed in terms of achieving certain basic functionings and acquiring the corresponding capabilities.²⁰ In so far as the underlying reasoning of the basic-needs approach relates to giving people the *means* of achieving certain basic functionings, the problem of interpersonal variations in 'transforming' commodities into functionings—discussed earlier—can also be avoided by directly looking at the functioning space rather than at the commodity space.²¹

7.3. LOWNESS *VIS-À-VIS* INADEQUACY OF INCOMES

In line with the preceding reasoning, it is possible to argue for seeing poverty as the failure of basic capabilities to reach certain minimally acceptable levels.²² The functionings relevant to this

¹⁸ These issues are discussed in Sen (1980*b*, 1981*a*, 1983*d*). The basic point of social variation of form related to the same general functioning goes back, in fact, to Adam Smith (1776). There is some similarity here with the Aristotelian position on 'non-relative virtues', on which see Nussbaum (1988*b*).

¹⁹ For an excellent discussion of the general approach, see Streeten *et al.* (1981). On related issues, see also Pant *et al.* (1962), Adelman and Morris (1973), Sen (1973*d*, 1981*a*), P. Bardhan (1974*b*, 1984), Adelman (1975), Grant (1978), Morris (1979), Chichilnisky (1980), P. Dasgupta (1986), Drèze and Sen (1989), UNDP (1990, 1991), Desai, Boltvinnik and Sen (1991).

²⁰ On this general question, see Sen (1984, 1985*b*), Streeten (1984), Stewart (1988), Griffin and Knight (1989).

²¹ On these issues, see Griffin and Knight (1989).

²² On this see Desai (1990) and Hossain (1990). See also Sen (1980*a*) and Griffin and Knight (1989).

analysis can vary from such elementary physical ones as being well-nourished, being adequately clothed and sheltered, avoiding preventable morbidity, etc., to more complex social achievements such as taking part in the life of the community, being able to appear in public without shame, and so on. These are rather 'general' functionings, but—as was discussed earlier—the specific form that their fulfilments may take would tend to vary from society to society.

This capability-based approach to poverty can be contrasted both (1) with the view of poverty as low utility, and (2) with seeing poverty in terms of low income (or, more generally, low holding of primary goods or of resources).²³ The analyses presented in the earlier chapters indicate why neither utility nor income (nor primary goods, nor resources) can be identified with well-being as such. But that fact is not decisive in determining the appropriate approach to poverty. In particular, since the concept of poverty has a well-recognized link with deprivation caused by economic problems, the approach of poverty as 'low income' needs further consideration.

It can be argued that poverty is not a matter of low well-being, but of the inability to pursue well-being precisely because of the 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 well and to lead a life without deprivation, and the fact that he managed nevertheless to generate some deprivation does not place him among the poor. This way of analysing the problem would seem to get one some distance towards seeing poverty in terms of income deprivation after all.

That line of reasoning certainly has some merit. It does indeed get us 'towards' seeing poverty in terms of income deprivation, but does not take us quite there. There are other distinctions to be considered. Perhaps the most important point to note is that the adequacy of the economic means cannot be judged independently of the actual possibilities of 'converting' incomes and resources into capability to function. The person with the kidney problem needing dialysis (in the example discussed earlier in this chapter) may have more income than the other person, but he is still short of economic means (indeed of income), *given* his problem in converting income and resources into functionings. If we want to identify poverty in terms of income, it cannot be adequate to look *only* at incomes (i.e. whether it is

²³ On related matters, see Goodin (1985, 1988).

generally low or high), independently of the capability to function derivable from those incomes. Income adequacy to escape poverty varies parametrically with personal characteristics and circumstances.²⁴

The basic failure that poverty implies is one of having minimally adequate capabilities, even though poverty is also *inter alia* a matter of inadequacy of the person's economic means (the means to prevent the capability failure). Consider the example touched on earlier of the person with a high metabolic rate, or a large body size, or a parasitic disease that wastes nutrients. He is less able to meet minimal nutritional norms with the same level of income, compared with another person *without* those disadvantages. If he is to be seen as poorer than the second person, despite the fact that both have the same income, the reason for this lies in his greater capability failure (the focus of our concern). The same set of facts can also be seen as indicating the greater inadequacy of his income *given* his personal characteristics and circumstances. To have inadequate income is not a matter of having an income level below an externally fixed poverty line, but to have an income below what is adequate for generating the specified levels of capabilities for the person in question.

In the income space, the relevant concept of poverty has to be *inadequacy* (for generating minimally acceptable capabilities), rather than *lowness* (independently of personal characteristics).²⁵ A 'poverty line' that ignores individual characteristics altogether cannot do justice to our real concerns underlying poverty, viz. capability failure because of inadequate economic means. Often it will make sense to group individuals into particular categories (related to class, gender, occupational group, employment status, and so on).²⁶ If we choose to express poverty in the income space, then the incomes needed would have to be linked to the causal requirements of minimal capabilities.

This question relates to the fact that the primary concern in poverty analysis is with capability to function, rather than with achieved functionings. The example, discussed earlier, of the person with means who *fasts* out of choice, as opposed to another who *has to*

²⁴ On this, see also Himmelfarb (1984).

²⁵ Rowntree (1901, 1941) himself was much concerned with the issue of income inadequacy—and not just with its lowness—in his pioneering studies of poverty in Britain.

²⁶ The use of such categories is discussed in Ch. 8.

starve because of lack of means, is relevant here. Both may end up starving and fail to be adequately nourished, but the person without the means—and thus without the capability to be adequately nourished—is poor in a way that the fasting person is not. So the focus of attention of poverty analysis has to be capability as opposed to achievement (even though we may sometimes use information about achievement to try to *surmise* the capability enjoyed by a person).²⁷

All this is close to the issue of the distinction between freedom and resources examined earlier (in Chapters 2 and 5). Resources *are* important for freedom, and income *is* crucial for avoiding poverty. But if our concern is ultimately with freedom, we cannot—given human diversity—treat resources as the same thing as freedom. Similarly, if our concern is with the failure of certain minimal capabilities because of lack of economic means, we cannot identify poverty simply as low income, dissociated from the interpersonally-variable connection between income and capability. It is in terms of capability that the adequacy of particular income levels has to be judged.

7.4. DO CONCEPTS MATTER?

The idea of 'income inadequacy', as discussed in the last section, goes well beyond that of 'low income' as such, since the former is sensitive to the conversion of income into capability in a way that the size of income as such cannot be. When the ranking of incomes goes opposite to the relative advantages in converting income into capability, the ordering of poverty and the identification of the poor may be very different if it is done entirely in terms of the size of income (as is the standard practice in most countries) compared with what it would be if the focus is on capability failure.

The problem is particularly serious with specific types of deprivation. For example, both because of biological reasons and social

²⁷ The fact that we are not classifying as 'poor' a person who has the capability to achieve good nourishment, but chooses not to, should not, of course, be taken to imply that such a person's deprivation should not command any sympathy or attention. As was discussed earlier (in Ch. 4), a person may give priority to non-well-being goals in his agency objectives, but that does not entail that *others* cannot have good reason to try to raise his low level of achieved well-being. Poverty is not the only reason for sympathetic regard from others. For example, while Mahatma Gandhi clearly had excellent reasons for fasting indefinitely in protest against the communal riots of 1947, his friends and well-wishers also had good reasons for trying to see that this did not lead to his fatal debilitation.

factors (especially as they operate with a resilient tradition of—explicit or implicit—sexism), women may have special disadvantages in converting income into particular functionings. To consider a variety of different types of cases, such disadvantages may apply to the capability of being nourished (e.g. because of the demands of pregnancy and neonatal care), achieving security (e.g. in single-parent families), having fulfilling work (e.g. because of stereotyping of ‘women’s jobs’), establishing one’s professional reputation early on in one’s career (e.g. because of the asymmetric demands of family life). The extent of deprivation may be underjudged if we concentrate only on the size of incomes, and the need to bring in capability failures explicitly can be particularly acute in such cases.

Similarly, the relationship between income and capability would be strongly affected by age (e.g. by the specific needs of the old and the very young), by location (e.g. by the special challenges to safety and security in urban living), by epidemiological atmosphere (e.g. vulnerability to diseases endemic in a region), and by many other parameters.²⁸ By focusing poverty study specifically on incomes as such, crucial aspects of deprivation may be entirely lost.²⁹

Sometimes the same handicaps, such as age or disability or illness, that reduce one’s ability to earn an income, can also make it harder to convert income into capability. Often, a high proportion of the poor in the advanced countries have such handicaps,³⁰ and the extent of poverty in such countries is substantially underestimated, since it overlooks the ‘coupling’ of income-earning handicap and income-using handicap in generating capability. For example, an old person has a much harder time in being free from disease, in leading a healthy life, in achieving mobility, in taking part in the life of the community, in seeing friends, and so on.³¹ And these income-using disadvantages can tremendously compound the feature of low

²⁸ For analyses of some of the factors involved in the context of the United States, see the papers included in Danziger and Weinberg (1986). Illuminating analyses of different types of non-income variables influencing the extent of deprivation of the vulnerable in the USA can be found in Palmer, Smeeding, and Torrey (1988), Case and Katz (1990), and several other recent studies.

²⁹ In the ‘Scandinavian studies on living conditions’ the informational base has been widened to include important functionings (rather than just examining income and opulence), and the empirical works demonstrate how big a difference is made by this departure. On this, see Allardt (1981) and Erikson and Aberg (1987), and the literature cited there, and also Allardt (1992), Erikson (1992) and Ysander (1992).

³⁰ See Atkinson (1970a) and Townsend (1979).

³¹ See Wedderburn (1961), Townsend (1979), Palmer, Smeeding, and Torrey (1988), Laslett (1991), among others.

earning power which is the only one that the traditional focus on income-based poverty analysis manages to capture.

7.5. POVERTY IN RICH COUNTRIES

Even the causes of the persistence of hunger in rich societies cannot be fully understood if we confine our attention only to the size of incomes. Hunger in the United States is associated with many parameters of which low income is only one.³² The health aspects relate to the social environment, to the provision of medical care, to the pattern of family life, and a variety of other factors, and a purely income-based analysis of poverty cannot but leave that story half told.³³

The extent of capability deprivation can be quite remarkably high in the world's most affluent countries. For example, a study by McCord and Freeman (1990), presented in *The New England Journal of Medicine*, indicates that men in the Harlem region of the prosperous city of New York have less chance of reaching the age of 40 or more than Bangladeshi men have. This is not because the residents of Harlem have lower incomes than the average Bangladeshi does. The phenomenon is more connected with problems of health care, inadequacy of medical attention, the prevalence of urban crime, and other such factors that affect the basic capabilities of the Harlem resident.

The problem is not confined only to 'pockets' of deprivation in a small number of places. There are systematic patterns of intense inequality in non-income features between different groups. For example, in an article in *The Journal of the American Medical Association*, Otten *et al.* (1990) show that in the age group between 35 and 55, African-Americans have 2.3 times the mortality rate as do whites in the United States, and that only about half their excess mortality can be explained by income differences. The need to go beyond the information on incomes to the pervasive diversities of social circumstances and characteristics is well illustrated by the nature of these terrible problems. The social environment is deeply

³² On this, see School of Public Health, Harvard University (1985).

³³ For interesting empirical analyses related to this general issue in the context of the richer countries, see van Praag, Hagenaars, and van Weeren (1982) and Mack and Lansley (1985). See also the conceptual contributions to poverty study and its welfare-economic antecedents made by the Leiden School, e.g. van Praag (1968, 1978, 1991), Kapteyn and van Praag (1976).

influenced by the inadequacy of health facilities, the violent modes of inner-city living, the absence of social care, and such other factors. The lowness of income is only one factor among many that influence poverty in the United States.

The issue of food deprivation in rich America also raises a question of profound importance in understanding the nature of American poverty. Surprise is sometimes expressed at the fact there could be any actual *hunger* in a country as rich as the United States, where even the poorest groups tend to have much higher incomes than the middle-classes in many poorer countries who may not be particularly bothered by hunger as such. To some extent the difference may be due to the fact that money buys less of some types of commodities in the richer countries.³⁴ But even after corrections are made for these price differences, the paradoxical feature is still retained. Also, as it happens, food is not one of the items that are typically very much cheaper in the poorer countries than in the United States.

In explaining the apparent paradox, the capability perspective can help in two different ways. First, hunger and undernutrition are related both to food intake and to the ability to make nutritive use of that intake. The latter is deeply affected by general health conditions, and that in turn depends much on communal health care and public health provisions (a subject that will be further examined in the next section).³⁵ This is precisely where the civic problems of health delivery and inequalities in health care can precipitate capability failures in health and nutrition even when personal incomes are not that low in international standards.

Second, being poor in a rich society itself is a capability handicap for reasons that I have tried to discuss elsewhere.³⁶ *Relative* deprivation in the space of *incomes* can yield *absolute* deprivation in the space of *capabilities*. In a country that is generally rich, more income may be needed to buy enough commodities to achieve the *same social functioning*, such as 'appearing in public without shame'.³⁷ The same applies to the capability of 'taking part in the life of the community'.³⁸ These general social functionings impose commodity

³⁴ This relates to sharp differences in relative prices, on which see Usher (1968).

³⁵ On this, see Drèze and Sen (1989).

³⁶ See Sen (1983*d*), and also the exchange with Peter Townsend on this subject: Townsend (1985), Sen (1985*c*).

³⁷ This is an issue that Adam Smith had investigated with great clarity in the context of discussing the idea of 'necessary goods'; see Smith (1776: 351-2).

³⁸ On the importance of this achievement, see Townsend (1979).

requirements that vary with what *others* in the community standardly have.

While the rural Indian may have little problem in appearing in public without shame with relatively modest clothing and can take part in the life of the community without a telephone or a television, the commodity requirements of these general functionings are much more demanding in a country where people standardly use a bigger basket of diverse commodities.³⁹ Not only does this make it more expensive to achieve these *social functionings* themselves, but the deflection of resources involved in pursuing these social functionings also drains the financial means that are potentially usable for health and nutrition. The apparent paradox of hunger in the rich countries is not hard to explain once our attention is shifted from exclusive concentration on the space of incomes, so that we can take note of the *conversion* of income and other resources into capabilities of various types.

The distinction between 'low income' and 'capability failure' *does* matter. A poverty analysis that concentrates only on incomes can be quite remote from the main motivation behind our concern with poverty (viz. the limitation of the *lives* that some people are forced to live). It may also fail to provide empirical guidance regarding the genesis and prevalence of deprivation.⁴⁰ Concentrating on the right space is no less important for poverty study than it is for the general investigation of social inequality.

³⁹ See Townsend (1979). Townsend interprets this aspect of poverty as requiring a 'thoroughgoing relativist' approach. On the other hand, it can be argued that while this variability of commodity requirement shows the relativity of poverty in the space of *commodities and incomes*, we are still concerned here with absolute deprivation in the space of *capabilities* (e.g. not being able to take part in the life of the community). This claim (see Sen 1983*d*) has led to a certain amount of heated—and not invariably enlightening—debate (see Townsend 1985; Sen 1985*d*, Seidl 1986*a*; Desai and Shah 1988), but the main issue is fairly simple. The absolute-relative correspondence relates to the variable commodity requirement for the *same* functioning (e.g. a much larger need for commodities in richer countries to achieve the *same* functionings, such as taking part in the life of the community, or—to go back to Adam Smith's example—appearing in public without shame). While the minimally acceptable capabilities to function may *also* vary from society to society, the variable commodity requirement for the *same* capabilities does not, in itself, require that we take a basically 'relativist' approach to poverty, provided we see poverty as capability failure.

⁴⁰ On this question, see the results of the 'Scandinavian studies in living standards' presented in Allardt (1981) and Erikson and Aberg (1987), and the literature cited there. See also Allardt (1992), Erikson (1992) and Ysander (1992).