Perspectives on Health Inequalities:
The Need for a Lifecourse approach

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About the paper

**Perspectives on Health Inequalities: The Need for a Lifecourse Approach**

This paper was first presented with the same title at a symposium on health inequalities which formed part of a postgraduate course in Medical Sociology in the Department of Social Policy, University of Helsinki, Finland on September 1st, 1997. It was subsequently translated into Finnish and published as a chapter in a collection edited by Ossi Rahkonen and Eero Lahelma.

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INTRODUCTION

At the time of writing, there is renewed interest in health inequalities in several countries in Europe and elsewhere which extends beyond the academic community to the policy arena. In Britain, the recently elected Labour Government has commissioned an independent inquiry into health inequalities in England and Wales under the chairmanship of Sir Donald Acheson, the former Chief Medical Officer, with the specific remit to review the evidence and produce recommendations. In Germany, senior academics are preparing a briefing paper to persuade their Government to do the same. In Sweden, meetings are being held this Autumn with the aim of getting the issue onto the political agenda, and similar moves are being made elsewhere. Even in countries as dissimilar as the U.S.A. and Hungary, there is a growing concern about health inequalities as evidence accumulates about the existence - and persistence - of differences in health between people in different social classes or income levels in advanced societies, many of them with well developed welfare states.

This flurry of activity suggests a degree of confidence among academics and policy makers alike that we now not only have the necessary evidence about the existence of health inequalities but that we understand their causes and are therefore in a position to offer appropriate remedies. While applauding this at a general level, I want to introduce a note of caution by arguing that we are still quite a long way from a comprehensive understanding of the causes of health inequalities and that because of this there is a danger we will offer too simple a solution to a complex problem. The health inequalities debate, as it has become known, is not a neutral one. It inflames passions and divides people of different political persuasion. The debate has been characterised by a sharp polarisation of views about a range of issues such as the appropriateness of particular ways of measuring health, the degree to which health inequalities are widening over time, and particularly the explanations for health inequalities. Here, a sharp polarity has been apparent between those who see a role for individual responsibility (via health behaviours like smoking, for example) and those who don’t; between those who see a role for health related mobility and those who don’t; and more recently between those advocating a role for psychosocial mechanisms and those who don’t. In some part, perhaps in very large part, this polarisation of views is not a reflection of a balanced assessment of the evidence but of a tendency to seek a single all-embracing explanation of health inequalities and downplay the significance of other possibilities. It is what Sally Macintyre, in a recent review (1997), has characterised as a ‘hard’ rather than ‘soft’ version of the explanation of health inequalities.

In this paper, I want to look at these issues in more detail. In reviewing several perspectives on health inequalities, including the recent and potentially very influential thesis of Richard Wilkinson (1996), I will argue that there remains a tendency in the health inequalities debate to go for the ‘big’ explanations rather than concentrating on all the evidence and seeing each bit as part of a very complex jigsaw. In this respect, what has become known as the ‘lifecourse’ perspective on health inequalities (Lundberg, 1993; Wadsworth, 1997, Power et al., 1997) seems to offer a way forward in that it forces investigators to consider each stage of the lifecourse, from the embryo through to very old age, as containing particular influences on health and biography which are synergistically interrelated. In this model, health inequalities are the product of an accumulation of (dis)advantages over the lifecourse, some of which may be outside the individual’s control, some not; some of which may derive from the social class an individual is born into, some from influences related to social mobility; some of which may take the form of physical effects of the environment, some of which may involve a
psychosocial mechanism. Not only does this perspective direct the investigator to stick very closely to the evidence indeed, but it also warns against the advocacy of any one all-embracing solution to the problem and suggests instead a multifaceted approach.
THE NATURE OF HEALTH INEQUALITIES

Before considering the central question of explanations for health inequalities, let us first examine what we know about the form and magnitude of health differentials in advanced societies. Of necessity, this must be brief and several excellent reviews on this issue are available (Macintyre, 1986, 1997).

Interest in health inequalities is not new. In Britain, as early as the first half of the 19th Century, public health reformers documented striking differences in death rates between the poor and the well-to-do. Edwin Chadwick (1842), for example, reported that in Liverpool in 1840 the average age of death for the gentry was 35 while that for labourers was 15 years. Nearly a century later, Stevenson (1928), the originator of the Registrar General’s classification of social classes, showed a steep increase in the rate of infant mortality from 48 per 1000 live births in social class I to 123 per 1000 in social class V, and a corresponding increase in the rate of adult mortality from 81 per 1000 to 127 per 1000. At various intervals thereafter, similar class differences in mortality were reported in Government publications. In general, however, the issue we now refer to as ‘health inequalities’ was largely invisible, and particularly so in the period after World War II up to about the mid-seventies. A number of factors, including the increasing affluence of the British population and the belief that the welfare state (exemplified by a National Health Service free at the point of delivery) was eradicating problems of poverty, probably contributed to the relative inattention and lack of interest in health inequalities during this time.

This situation changed very dramatically with the publication of the ‘Black Report’ (Townsend et al) in 1981. The Report, which had been commissioned by the previous Labour administration in response to an increasing concern that the NHS was not in fact solving the problem of health inequalities, had three central aims: to review the evidence about class differences in health, to consider possible causes, and provide policy recommendations. Its importance cannot be overestimated, and in one way or another it has set the agenda for research on health inequalities in Britain and elsewhere (not least Finland) to this day. Among the many thousands of publications on health inequalities, there is hardly one which does not make some reference to it, and it has become something of a bible for generations of students interested in the issue.

The Black Report relied almost exclusively on mortality rates as the ‘best available indicator of the health’ (ibid., 55) of people in different social classes, an ironic indicator of ‘health’ but nevertheless one which because of its objective nature continues to be favoured by many investigators to this day (Davey Smith et al, 1994; Wilkinson, 1996). Using data from the 1970-72 Decennial Supplement on occupational mortality, they showed that the crude death rates of both men and women aged 15-64 in social class V were two and a half times those of men and women in social class I. Furthermore, using standardised mortality ratios (SMRs - standardised for age), regular class gradients were shown to exist for stillbirths, infant mortality (deaths in the first year), childhood mortality (age 1-14 years) and adult mortality (15-64 years). An examination of causes of death also revealed that health inequalities existed for most causes, notably accidents in childhood and diseases of the respiratory, digestive and genito-urinary systems and malignant neoplasms in adulthood. Although, as indicated, the Black Report relied heavily on mortality statistics, some other data on morbidity from the British General Household Survey (GHS) were also interrogated. This showed that in the total population, rates of ‘limiting longstanding illness’ increased by a factor of three from people in the professional classes to those in the unskilled manual class. Taken together,
all the evidence led to the now famous conclusion that health inequalities were a pervasive feature of the lifecourse.

Since the publication of the Black Report, much has been achieved by the burgeoning research effort into the study of health inequalities. Until relatively recently, the predominant focus has been descriptive rather than explanatory, the main findings of which can be summarised as follows.

First, there is now evidence that health inequalities are a feature of all developed societies. At the time of the Black Report, very little information existed on this issue and it was widely believed that in some societies such as Sweden class differences in health simply did not exist. We now know that this is not true both for Sweden and other countries in western Europe (Illsley & Svensson, 1986), eastern Europe (Vagero & Illsley, 1992), North America (Kunst et al., 1992) and Australasia (Pearce et al., 1993). In Finland, this was first demonstrated by Valkonen et al. (1993). Most of the evidence on this issue refers to mortality but in some countries, including Finland, similar measures of morbidity as used in the British GHS have revealed evidence of health inequalities (Lahelma et al., 1994).

Second, most but not all the evidence suggests that health inequalities have increased over time in spite of the fact that almost everywhere (Hungary is a notable exception), infant mortality and premature mortality have declined. In Britain, mortality differentials between men in social class I and V widened between 1971 and 1981 (Davey Smith et al., 1990), and continued to widen up to 1991 (Illsley & Baker, 1997). Very recent evidence, based on a comparison of mortality rates in different geographical areas in Britain also suggests that health inequalities have widened (Dorling et al., 1997). In Finland, class differences in mortality among middle-aged and elderly men increased between 1971 and 1981 (Valkonen et al., 1993). The conclusion that class differences in health are widening has, however, been recently criticised by Illsley and Baker (1997) who argue that it is only sustainable in comparisons between the top and the very bottom of the social scale, the latter comprising an increasingly small proportion of the population, the 'underclass'.

Third, at the time of the Black Report very little evidence about variations in mortality (or morbidity) by dimensions of class other than that based on occupation was available. In the light of the changing nature of the class structure in contemporary society, and the inadequacy of an occupational based classification scheme to classify women, the retired and other groups excluded from the labour market, this has been an important source of criticism about the magnitude (and even existence) of health inequalities. There is now evidence from several countries that health differentials are apparent with respect to 'alternative' measures of social class such as housing tenure, car ownership, educational level, income (Goldblatt, 1990) and area of deprivation (McLoone & Boddy, 1994). Of particular interest in this connection is income since the finding that health and wealth are related is open to quite different interpretations.

Fourth, one of the most striking features of the observed relationship between social class (and income) and health is that the relationship is stepwise or linear; that is, that increases or decreases in health occur at every point in the class structure or income level. Thus, the difference in mortality rates between classes at the top of the social scale (e.g. I and II) is similar in magnitude to the difference between classes at the bottom of the social scale (e.g. IV and V). This pattern has actually been evident for a very long time, as Macintyre (1997) has noted, but the significance of the hierarchical relationship has only relatively recently been seen as interesting, most notably in the U.S. with the MRFIT study (Davey Smith et al., 1996) and in the U.K. with the Whitehall I
and II studies of civil servants (Rose & Marmot, 1981: Marmot et al., 1997). The pattern is surprising given that most assumptions about the relationship between class or income and health would commonsensically suggest a change in shape beyond a certain point or threshold at which basic needs were met. That this does not happen poses an interesting problem for the explanation of health inequalities.

Fifth, the Black Report, and many commentators since (Whitehead, 1987), assumed that health inequalities were an invariant feature of the lifecourse. On the basis of the evidence available to them, this was in fact a reasonable assumption. Further work, with which I have been particularly associated, has thrown doubt on the validity of that assumption as it pertains to the situation of youth, a stage in the lifecourse between childhood and adulthood I have characterised as being one of relative equality rather than inequality (West, 1988, 1997). This pattern, which has also been found in other countries, including Finland (Rahkonen & Lahelma, 1992), suggests that in youth other influences associated with the school, the peer group and youth culture may cut across the influence of social class to promote ‘equalisation’, at least in respect of some measures of health (West, 1997). That this is no more than a temporary process is indicated by the way health inequalities (re)emerge in early adulthood. This occurs both in respect of mortality and morbidity as indicated in our own West of Scotland Twenty-07 study (Macintyre et al., 1989) on a wide range of health measures, including the GHS measure of longstanding illness (West et al., 1990). This pattern, which has been referred to by Vagero (1991) as an important anomaly, also poses some interesting problems of interpretation - how does a pattern of relative equality get translated into one of health inequalities in such a relatively short time?

Sixth, while the Black Report depended heavily on mortality statistics as evidence of health inequalities, increasingly research on the issue has used indicators of morbidity, most usually of the type included in the British GHS but also extending to measures of general physical health, mental health, symptoms and physical measures such as height, weight, blood pressure and respiratory function. As a general rule, class gradients in relation to morbidity are not as steep as are observed for mortality (Macintyre, 1997). They also vary between measures, being more marked for measures of health status such as chronic illness than for health state such as physical symptoms. In the Twenty-07 study, in two adult cohorts aged 35 and 55 respectively, class gradients were found for longstanding, and limiting longstanding, illness, self-rated general health, mental health, height and weight, and respiratory function, but not blood pressure (Ford et al., 1994). Other studies have found blood pressure to be class-related, but in general the gradient is not very steep (Cox et al., 1987). In the British 1958 birth cohort (NCDS), class patterning of health in young adulthood (age 23) varied considerably between measures, with some (e.g. malaise) exhibiting a health inequalities pattern, others (e.g. limiting longstanding illness) showing no relationship, and others (e.g. allergies) a reverse class gradient (Power et al., 1991). Similar findings have been reported from the later sweep of that study (age 33) with, in addition and against expectations, very little evidence that class gradients had widened over the ten years since the earlier sweep (Power et al., 1997). It is a salutary reminder to researchers in the health inequalities field that on some health measures only a small proportion of the variance is explained by social class or another measure like income (Der et al., 1997).

In the years since the Black Report, we have learned a great deal about the social patterning of health, much of which is now broadly agreed though there remain some areas of controversy and others which pose problems of interpretation. There is broad consensus that health inequalities are a feature of all developed societies, that they have probably increased over time, that they are observable with a range of measures of social class, and that the observed relationship between class and health conforms to a
linear rather than threshold model. There is increasing recognition that the apparently anomalous situation in youth is a real one though some dispute this, principally on methodological grounds (Blane et al., 1994). This finding, that health inequalities are not an invariant feature of the lifecourse, together with the finding that health inequalities are not invariably found with every health measure, is important and poses problems for a single all-embracing explanation of health inequalities. I shall return to these issues later.
EXPLANATIONS OF HEALTH INEQUALITIES

If there is an emerging consensus about many descriptive features of health inequalities, this is not (yet) the case in respect of the explanation of the phenomenon. The history of this aspect of the health inequalities debate since the Black Report is one characterised by controversy in which various individuals and research groups have engaged in vociferous argument, often holding or being characterised as holding highly polarised positions. In large part, this has been a peculiarly British preoccupation, other countries having much more civilised debates, but it is important to remember that the publication of the Black Report happened within a year of the election of the Thatcher Government, undeniably the most ideologically driven administration of recent times, and this set an agenda for a polarisation of views about almost everything. It is also the case that the authors of the Black Report in many respects contributed to this polarisation in the way they constructed a typology of explanations of health inequalities which either confused certain issues or rested on a particular view of the mechanisms involved.

The Black Report identified four candidate explanations of health inequalities which to this day continue to dominate the debate. These were the artefact explanation, natural or social selection, the cultural/behavioural explanation and materialist or structural explanation, the latter by far the most favoured by the authors. I will consider each one of them in turn.

Artefact explanation

The artefact explanation of health inequalities rests on the idea that the relationship between class and health is artificial rather than real. It is a measurement phenomenon which arises either through the (inadequate) measurement of social class and/or health, or in the measurement of the relationship between the two. An early problem of the latter kind was referred to in Britain as the ‘numerator/denominator bias’, a possibility which arose in the process of matching occupational data available from death certificates (the numerator) with population data about social class derived from the census (the denominator), the implication being that working class rates might be artificially elevated or middle class rates reduced (it could of course have worked the other way round to conceal the real magnitude of class differentials). With the availability of linked (individual data on class and mortality) datasets in Sweden, Finland and elsewhere, and the advent of the Longitudinal Study (LS) in Britain (Goldblatt, 1990), the numerator/denominator bias has been shown to be false. More complex problems of measurement of both social class and health remain. In respect of the former, while studies using alternative measures of class such as housing tenure or income demonstrate that at any one time health inequalities are not simply the product of an occupational based classification system, there are problems of comparison over time occasioned by the changing nature of the class system (Illsley, 1997). With respect to health, there are also potential problems of reporting bias in relation to measures of morbidity, one of the reasons why some investigators (e.g. Wilkinson, 1996) prefer to use mortality. The usual assumption is that because of the greater volume of ill-health in the working classes, what is defined as illness is more severe than among the middle classes, a difference which results in an underestimation of the true extent of health inequalities (Blane et al., 1994). While important, this is only one view about how illness is identified (and reported), another suggesting that through middle class stoicism quite the reverse could occur (Williams, 1990). More generally, the question of the appropriateness of health measures has been raised as a possible explanation for the
finding of a pattern of relative equality in youth, an issue which certainly merits further investigation (West, 1997).

There is no doubt that there remain several problems in relation to the measurement of health inequalities. The cumulative evidence, however, is overwhelming that health inequalities are real rather than artefactual. This is one explanation advanced by Black which by almost universal agreement can be rejected.

Natural/social selection

Any assessment of the role of selection in relation to health inequalities has to begin with a distinction between ‘natural’ and ‘social’ selection which the Black Report coupled together, thereby obscuring a fundamental difference in the processes involved and inadvertently creating the conditions for polarised views thereafter. For the authors, this explanation of health inequalities involved the idea that health was a ‘cause’ of social class position rather than a consequence, and that ‘fitter’ individuals (both in relation to health and other characteristics) are selected into higher classes while the ‘weakest’ and ‘most frail’ drift down the social scale to occupy the lowest position and ‘reap the most meagre rewards’ (op. cit., 105). In this view, both health and class position are the outcome of ‘innate characteristics’ or genetic predispositions, and it is therefore a profoundly Social Darwinist view which is advanced wherein processes of social selection play no part other than presumably reflecting natural selection. With the occasional exception (Himsworth, 1987), there is almost nobody who would subscribe to this view but within the inequalities debate there has been an unfortunate tendency to assume that those who see a role for social selection (e.g. Illsley, 1986) are closet ‘natural selectionists’ (Wilkinson, 1986).

Reconceptualised within a sociological perspective (West, 1991), the idea of health selection proceeds from the unremarkable postulate that health - and health related characteristics - can have consequences for social life, including success or failure in the labour market and class structure. In this view, for profoundly social reasons, those people in better health are more likely to experience upward social mobility while those in worse health are more likely to experience downward mobility, the combined effect of which is to contribute to a picture of health inequalities. It is postulated that this can happen between generations (inter-generational mobility), as when a disabled young person for example moves down the social scale relative to his/her class of origin, or within a generation (intra-generational mobility) as when a chronically sick adult changes from a higher to lower status occupation. There are several processes by which this might occur, including family characteristics which impact both on health and education, thereby affecting subsequent inter-generational mobility chances (Vagero & Illsley, 1995), and discrimination by employers against those with health or health related problems (West, 1991). Finally, a distinction exists between what has been called ‘direct’ health selection in which health itself (consciously or unconsciously) is related to social mobility, and ‘indirect’ health selection in which some other attribute marking health potential is similarly involved with the mobility process (Wilkinson, 1987; West, 1991). An example of the latter is height, which is associated both with health and social mobility (Macintyre & West, 1991), though the problems of sorting out the causal process are considerable.

A good deal of work has been undertaken to examine the ‘health selection’ hypothesis, most usually to rule it out as an explanation of health inequalities. Most, but not all, studies find some evidence of ‘direct’ health selection. In the 1946 British birth cohort, children with serious illness were more likely than those without to be downwardly mobile (Wadsworth, 1987). In the 1958 cohort, that was true among those with ‘malaise’ at age
16, much less so among those with poor general health (Power et al., 1991). In the Swedish ‘Project Metropolitan’ study, much greater evidence of selection was found in relation to mental health (Timms, 1995). By contrast, in a recent analysis of the British GHS, almost no evidence of downward mobility was found for those with poor self-rated health or limiting longstanding illness (Rahkonen et al., 1997a). The question which has assumed more importance in recent years, however, is not whether health related mobility occurs but how important it is as an explanation of health inequalities. The general conclusion is that it plays a small but significant role (Blane et al., 1993), though some recent commentators, perhaps rather unwisely since the analysis rests on one health measure only, describe its influence as ‘negligible’ (Power et al., 1996).

There has in addition been some interest in the process referred to as ‘indirect’ health selection which I earlier indicated might be much more significant than ‘direct’ health selection (West, 1991). Its potential significance derives from the way particular characteristics of individuals which may mark underlying health status might impact both on social mobility and on subsequent class inequalities in health. Among several characteristics considered, height has received the most attention and there is abundant evidence from several studies that height is related to mobility, with shorter people being more likely to be downwardly mobile, taller people more likely to be upwardly mobile (Macintyre, 1988). The problem of its relationship to health inequalities, however, is knowing how height translates into health since it could simply be that stature predisposes to subsequent health risk rather than containing differential health risk. Other attributes which have received some attention are health behaviours such as smoking, and more generally young people’s lifestyles, which are also linked in a regular way to social mobility (Glendinning et al., 1995) but similar problems of interpretation are encountered here. At the present time, the jury is out on the issue of ‘indirect’ health selection, and it may well be that the main problem is one of lack of conceptual clarity.

**Cultural/behavioural explanation**

In contrast to health selection, the third explanation identified in the Black Report views class as antecedent to health with ‘cultural/behavioural’ factors as the mechanism by which health inequalities are produced. This is therefore one type of ‘social causation’ explanation, but in rather the same way that the linking of natural and social selection caused misunderstanding, the coupling together of behavioural and cultural explanations has, in my view, obscured the potential importance of culture as an influence on health inequalities (Sweeting & West, 1995). For the authors of the Black Report, although they allude to the role of ideas and values, the definition of culture is reduced to a set of specific behaviours which have consequences for health. These behaviours, which are well known and typically comprise smoking, drinking, diet and exercise (Blaxter, 1990), were regarded as ‘cultural’ because of the common understanding that they are, or should be, within the control of individuals. In this respect, they were reflecting the message of the previous British Labour administration's white paper 'Prevention: Everybody’s Business' (1976), a message which continues to dominate health education and health promotion in Britain and elsewhere.

There is no disputing the aetiological significance of behaviours like smoking or diet for subsequent morbidity and mortality, nor that these behaviours are socially patterned. In Britain, for example, smoking among adults continues to be much more prevalent among working class compared with middle class people, in some measure because of the greater capacity of the latter to quit the habit (Amos & Hillhouse, 1993). Successive studies of diet, too, have revealed a pattern of poorer nutrition among both children and adults from lower social class backgrounds (RUHBC, 1997). The important question, however, concerns the extent to which such behaviours constitute a complete
explanation of health inequalities as some people seem to assume. The research evidence strongly suggests they do not. For example, in the Whitehall I study of civil servants, controlling for the risk factors of smoking, cholesterol and blood pressure did not account for the fourfold increase in CHD mortality between administrative and ‘other’ grades, though they did explain about 25% of the difference (Rose & Marmot, 1981). Recent evidence from a large community study in the Netherlands, which used a wider range of health behaviours, found they had a larger explanatory role in relation to several measures of morbidity, accounting for about 40% of the variance (Stronks, 1997). In this study, the investigator attempted to separate an influence of health behaviours from that associated with material circumstances, concluding that each had a part to play. This is an interesting attempt to distinguish a voluntary component in behaviours like smoking from an adaptive component in which the behaviour is conceptualised as a modifier of stress associated with poverty (Graham, 1994). In this latter view, health behaviours are not viewed as cultural expressions at all but as a particular type of materialist explanation.

The tendency to regard health behaviours as being synonymous with cultural influences is, I believe, short-sighted. It is certainly an impoverished view of culture, and fails to give recognition to a wide range of factors either embedded in class cultures or differentially characterising individuals or families within the same social class which could, via social mobility, impact on health inequalities. One example of this refers to the value placed on health and education respectively which, as Vagero and Illsley (1995) suggest, could co-exist as components of a class culture to influence both morbidity and achievement, and hence health inequalities. Another refers to the role of the family in influencing health (Sweeting & West, 1995). In the Twenty-07 study, young people from families characterised by conflict were more likely to report malaise and physical symptoms and to do less well in the labour market. Inasmuch as this is class related, these findings point up a way in which ‘family culture’ may impact on health either directly, via a psychosocial mechanism like self-esteem, or indirectly, by exposing young people differentially to subsequent health risk. The potential significance of family life for longer term health problems is also strongly suggested in Lundberg's (1993) findings from the Swedish Level of Living survey where, controlling for earlier material factors, the experience of family conflict and breakup were associated with poorer physical and mental health in adulthood.

**Materialist or structuralist explanation**

The fourth explanation of health inequalities advanced in the Black Report is that referred to as materialist or structuralist, by which the authors meant a whole range of factors which are determined by the class or income structure and which have an impact on health and wellbeing. As Macintyre (1997) notes, despite the authors’ attempt to clarify the central components of the explanation, there remains a confusion between what she terms the ‘hard’ version, in which material conditions themselves (e.g. physical aspects of the environment) are seen as the key determinants of health, and the ‘soft’ version in which ‘social’ as well as economic capital (e.g. education) are regarded as important, the latter incorporating psychosocial mechanisms. The inclusion of social capital within a materialist explanation owes much to a Marxist view of the world in which class culture is conceptualised as the superstructure of the material class base. A ‘hard’ view of this ‘soft’ version would rule out a role for culture altogether since all values (and health behaviours) are products of the underlying class structure.

Until recently, much of the effort of research workers concerned to develop the materialist explanation has been directed rather more to disproving other explanations of health inequalities (notably health selection) than in identifying mechanisms by which the
relationship between income or car ownership and health might actually work. Indeed, it
sometimes seems that the finding of a minor role for selection or health behaviours is
judged an adequate demonstration of a major role for materialist factors. There are,
however, four main areas which have been the subject of some research and which refer
to the intrauterine environment, physical features of the external environment,
psychosocial influences, and opportunity structures respectively.

The first of these was not originally formulated within a health inequalities perspective at
all, but has since been incorporated as one type of materialist explanation, sometimes to
the exclusion of all others. The research concerned has been developed by Barker and
colleagues (1992) who, in an ingenious series of studies using both aggregate and
individual level data, have revealed relationships between infant health, notably
birthweight, and much later morbidity and mortality in adult life. The principal finding
concerns the link between low birthweight and high blood pressure in adulthood which in
turn leads to increased CHD and stroke mortality. The mechanism by which this is held
to occur is an essentially biological one involving a relationship between intrauterine
growth and the programming of body functions like blood pressure such that when
growth is impaired the body sets a higher level of blood pressure. Since birthweight is
class related, it follows that such a process could have consequences for the subsequent
development of health inequalities, and since foetal growth is itself related to maternal
nutrition, the underlying cause is seen to be poor maternal nutrition associated with
poverty. The thesis has attracted a good deal of critical attention, particularly in respect
of the possibility that the relationship between birthweight and later health is spurious,
though in a recent Swedish study which controlled for a number of factors including
health behaviours in adulthood an independent effect of birthweight on blood pressure
was found (Koupilova et al., 1997). Despite the sometimes very exaggerated claims to
explain health inequalities, the relationship between birthweight and later blood pressure
is in fact quite small.

The second area which has received attention refers to a rather longer tradition of
research focusing on a range of physical hazards in the environment including pollution,
work settings and housing conditions. In general, though the effects of environmental
pollution and the physical hazards associated with work are acknowledged as potential
risks to health, their effect on health inequalities is not nowadays regarded as particularly
important. More importance has been given to housing conditions. In one study (Martin
et al., 1987), which is often referred to, a relationship between damp housing and
respiratory problems in children, though not adults, was found. The finding in respect of
children has not, however, been consistently replicated (Strachan et al., 1995), and it
may be that here too the size of the effect has been exaggerated.

A third area which has assumed particular importance in recent years refers to
psychosocial processes linking environmental stressors to physical and mental health.
Research into this issue has been heavily concentrated on the work situation, a common
finding being that workers in lower status occupations characterised by low levels of
control over work, a fast work pace, and low social support have higher CHD morbidity
and mortality (Karasek et al., 1988; Marmot et al., 1997). The plausibility of a
psychosocial mechanism underlying this relationship has been considerably increased
with the demonstration of changes in cortisone and fibrinogen levels in blood chemistry,
both of which are indicators of stress. In principle, the underlying processes presumed to
link stressors in the work situation to workers' health might apply to other situations like
the domestic setting or even to society itself.

The fourth area of research takes an entirely different approach to those which in one
way or another are looking at the direct effects of the socio-economic environment on
health. Here the focus is on opportunity structures both for the promotion of good health and for life chances more generally, both of which are differentially distributed in the class or income structure. In respect of the former, attention is directed to the provision of facilities and availability of goods and services in particular areas. Macintyre et al. (1993), for example, have shown how people living in poorer areas have fewer recreational and sports facilities than those living in better-off areas and that in addition there is a price disincentive, particularly in the poorer area, to eat healthily (Sooman et al., 1993). In respect of the latter, attention is directed to educational and labour market opportunities which could involve several different kinds of effect via knowledge (e.g. health education), social identity (e.g. self-esteem) or differential exposure to risk (e.g. the likelihood of unemployment). Because the relationship between social structure and health in this model is essentially indirect, it focuses attention on the processes connecting them as they unfold over time.

It is quite evident, even with such a sketchy outline, that there are several different ways in which a materialist explanation of health could work. It is similarly apparent that these are likely to differ between different environments such as the work or domestic situation, and that they are likely to impact at different stages in the lifecourse, possibly also on different dimensions of health. It is also the case that the opportunity model outlined above in many respects overlaps with a broader cultural perspective on health inequalities. This diversity of possible causes, and the blurring of the distinction between material and cultural factors, is not what the authors of the Black Report had in mind when advancing the idea of a materialist explanation. Although they acknowledged a diversity of material influences, implicit in their understanding, and articulated more starkly in the debate since that time, is the idea that each of these influences is caused by a single underlying feature of society, the class structure itself or different income levels. In more familiar terms, this means poverty, the eradication of which via a redistribution of income is seen as the solution to the problem. The materialist explanation, as a ‘big’ explanation demanding big remedies, runs the risk of oversimplifying the issues in a way that a lifecourse perspective does not.
A CONTRAST; RELATIVE POVERTY OR A LIFECOURSE PERSPECTIVE

In a long tradition of ‘big’ explanations, none has come bigger in recent times than the thesis developed by Richard Wilkinson (1997). It is an explanation rooted in a materialist perspective which paradoxically elevates psychosocial processes rather than material (physical) factors as the key mechanism underlying health inequalities in contemporary societies. It is a thesis which has achieved a very high profile on the scientific, political and media agenda, and therefore merits some attention.

Wilkinson’s thesis begins with the identification of a paradox. This is that while the health of poorer societies, as indicated by life expectancy, closely mirrors their economic development, beyond the ‘epidemiological transition’ - a point at which the diseases of affluence (e.g. heart disease or stroke) replace those of poverty (e.g. infections) as the major killers - a nation’s health is not determined by economic growth per se but rather by the degree of differentiation in living standards experienced by its population. In developed societies, life expectancy is higher among those which are more egalitarian and lower in countries like Britain which have greater inequalities in income. In the contemporary context, he argues, it is not absolute poverty which kills but relative poverty, as indicated in particular by the linear rather than threshold relationship income has with mortality. Thus, within this hierarchy, it is not merely the poorest who are deprived, and least healthy, but each and every one of us in relation to the position we occupy vis-a-vis another (richer or poorer) social group. In inegalitarian societies, the resultant stress this generates not merely compromises the immune system, leading to higher mortality rates, but it also, he claims, has catastrophic effects on a range of other behaviours such as crime, drug use and behaviour disorders in children. The solution, he believes, is to rediscover, via a redistribution of income, a more cohesive society with lower levels of chronic stress and better health.

In many respects, Wilkinson’s thesis is extremely persuasive in its claim to provide a new psychosocial explanation for health inequalities. The problem, as with other single explanations, is that it explicitly rules out any role for other mechanisms such as selection, health behaviours and even absolute poverty, and in addition is remarkably weak in adducing evidence in support of two central tenets of the argument. The first refers to the almost complete absence of any data on mental health which, given the importance ascribed to the effects of chronic stress, would be expected to occupy a fairly central position. Indeed, it is perplexing that although overall mortality rates are correlated with the degree of income differentiation in societies, this does not apply to suicide! The second refers to the similar absence of data on social cohesion which is inferred either from historical case studies or apparent symptoms of disintegration such as drug use rather than from the perceptions of people themselves both in relation to the kind of society they live in and the position they occupy in the hierarchy. This is perhaps a harsh criticism since such data is not widely available, but this has to be balanced against the tendency of any grand theorist to be selective in the use of evidence. The problem fundamentally is that at almost every point in the thesis there is an alternative explanation. For instance, the linear relationship of income and health fits a health behaviour explanation of health inequalities just as much as it does a psychosocial one. It is also possible, as Marmot et al. (1997) have suggested, that different mechanisms could operate at the top and bottom of the social scale, the former being more susceptible to psychosocial processes, the latter being more affected by the effects of
absolute poverty. Despite these criticisms, Wilkinson’s achievement in locating psychosocial mechanisms in the health inequalities debate is considerable.

One of the other criticisms of the thesis that psychosocial mechanisms are the key to understanding variations in mortality between societies is that it implies that mortality rates would respond rapidly to social change. There is indeed some evidence for this, as the east European experience shows, but in general this is not the case, most countries showing a steady improvement over time. This seems to suggest that, whatever factors are responsible, they work over the lifetime of individuals. Indeed, if we pause to consider the evidence, this is compatible with a range of research findings testifying to the importance of early life factors for later morbidity and mortality. Furthermore, much of what we know both about the shape of class patterning of health at different ages and the factors which influence health at any one stage suggests that a profitable approach to understanding health inequalities is to think in terms of an accumulation of risk over the lifecourse.

It is observations like this that have given rise in recent years to what is becoming known as the lifecourse perspective on health inequalities, a perspective held in particular by those working with longitudinal datasets (Power et al., 1991; Wadsworth, 1997) or with retrospective data about early economic and social conditions (Lundberg, 1993; Rahkonen et al., 1997b). It is an approach which is not tied to any one of Black’s explanations and would, theoretically at least, admit a role for health behaviours and broader features of culture, material and psychosocial factors, and health selection. Furthermore, rather than seeing these as competing factors, the emphasis in the lifecourse perspective is to conceptualise influences as mutually reinforcing and linked together in a chain of events and experiences which impact on health. The relationship with social class is also seen in dynamic terms and would necessitate consideration of health risks associated both with class of background and achieved adult class as well as the relationship between them. Ultimately, the task is to identify particular types of healthy and unhealthy careers or trajectories which offer the potential for intervention at particular key points.

The lifecourse perspective is not yet sufficiently well developed to constitute a theory, but it is possible to direct attention to a range of particularly important influences occurring at particular stages. The first of these, following Barker’s work, refers to the earliest period of life and would focus as much on the consequences of low birthweight (e.g. subsequent infant feeding practices) as on its causes. In respect of early childhood, the evidence strongly suggests that the physical effects of the domestic environment (e.g. damp housing) are of particular importance. In later childhood, the relationship between values about health and education, as they constitute part of the socialisation of the child, might be particularly important. A related issue in childhood and adolescence is the way illness impacts on educational achievement. The adolescent period is also of potentially great importance as it is at this time that health behaviours such as smoking are developed. The research evidence bearing on this issue suggests that, though this period may be characterised by relative equality in health, the consequences of poor educational achievement and deviant lifestyles for subsequent health inequalities are profound (Power et al., 1991). One such consequence in later youth is the experience of unemployment which not only impacts on health but also on the likelihood of future unemployment in adulthood (Montgomery, 1996). In adulthood, and perhaps particularly among adult workers, the possibility of psychosocial effects from particular work environments is encountered. Finally, as we proceed towards retirement and beyond, a range of factors associated with changes in roles and social support become more and more important. Each of these factors constitutes an influence on health in its own right, but the particular strength of the lifecourse perspective resides in the way they may be
dynamically interrelated over time. It also suggests that it is extremely unlikely that health inequalities are the product of a single underlying mechanism but rather that several different mechanisms (or pathways) are implicated for different dimensions of health (Power et al., 1997).

The lifecourse perspective has several advantages over other perspectives on health inequalities, not least because it admits influences which in Black’s terms belong to different and potentially competing domains. It also seems to me to be much more likely to be solidly evidence-based than the bigger all-inclusive explanations if for no other reason than it demands attention to detailed social processes. Even so, it is unlikely to be the final word on the issue for just as there is evidence which doesn’t fit the ‘big’ explanations, so there are findings which don’t fit the lifecourse perspective. One of these is that, on the basis of two longitudinal studies (the Twenty-07 study and the NCDS), class gradients do not appear to widen with age. Any explanation of health inequalities which rests on the notion of an accumulation of risk over time would not expect this and it is a puzzle as to why it doesn’t occur.
CONCLUSION

There is no doubt that health inequalities are a persistent feature of our societies, an inequity which demands that something be done. Given the passion the issue arouses, it is not surprising therefore that the debate has been characterised, and continues to be characterised, by the advocacy of simple, all or nothing, solutions. The Black Report, despite its immense contribution in putting the issue on the scientific and policy agenda, did not in my opinion help matters in polarising explanations along the axes of selection vs causation or individual responsibility vs material influences. This polarises solutions just as much as it does explanations in a way that seems to me to be counter-productive. Thus, it may be just as misguided to advocate the redistribution of income as the solution, as either the absolute or relative poverty model would suggest, as it is to advocate that health inequalities would disappear if working class people smoked less or ate more healthy diets. The potential effectiveness of income redistribution as the remedy for health inequalities, in my view, rests either on the dubious assumption that there is a single underlying psychosocial mechanism at work or that improvements in material standards would translate, via health behaviours or changes in values, into better health. Both are problematic.

The alternative view stems directly from a lifecourse perspective in which particular sets of influences at particular stages demand particular solutions. These might include nutritional policies for pregnant women, educational policies to improve standards in schools, social policies to reduce the problem of disengagement among young people, economic policies to reduce unemployment, anti-discrimination policies to prevent discrimination against disabled people, and work-place policies to reduce levels of stress. At the present time, this multifaceted approach to the problem seems to be the one favoured by the British Government. It will offend those who see this as piecemeal attempts to tackle a big problem, but it is almost certainly closer to the evidence for all that.


