

# The determinants of health: structure, context and agency

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**Abstract** The concept of social structure is one of the main building blocks of the social sciences, but it lacks any precise technical definition within general sociological theory. This paper reviews the way in which the concept has been deployed within medical sociology, arguing that in recent times it has been used primarily as a frame for the sociological interpretation of health inequalities and their social determinants. It goes on to examine the contribution that medical sociologists have made to the debate over health inequalities, giving particular attention to contributions to *Sociology of Health and Illness*. These have often provided a focus for discussions outside or critical of the mainstream debates that have been driven primarily by epidemiologists. The paper reviews some of the main points of criticism of epidemiological approaches, focusing in particular on the methodological constraints that limit the capacity of epidemiologists to develop more theoretically satisfactory accounts of the inter-relationships of social structure, context and agency in their impact on health and well being. Some recent examples from the Journal of more theoretically innovative and analytically fine-grained approaches to understanding the impact of social structure on health are then explored. The paper concludes with an argument for a more historically-informed analysis of the relationships between social structure and health, using the knowledgeable narratives of people in places as a window onto those relationships.

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**Keywords:** social structure, health inequalities, determinants of health, context, agency, lay knowledge, narrative

. . . all this taken together is explanation enough of the excessive mortality in these unhappy abodes of filthy misery (Engels 1892 [1982]: 73).

## Introduction

*social structure*. The discernible framework, form, shape, pattern, of the interrelationships of men in a society . . . Ronald Fletcher (Bullock and Stallybrass 1977: 584).

The concept of social structure seems to be one of the great blocks on which the architecture of the social sciences has been built. Sociology is not simply the study of human beings or individuals in the world. It is not just big psychology or secular theology. It is the study of social structures and social processes, social action and social interaction. The extract above from Ronald Fletcher's contribution to the *Fontana Dictionary of Modern Thought*, first published in the year of my undergraduate final examinations and the Queen's Silver Jubilee, seems to me now to exhibit old-fashioned conceptual clarity and firmness of purpose (as well as an unquestioning confidence in the universalisability of the male gender). However, the problem with social structure, as the relevant entry in the more contemporary *Reader's Guide to the Social Sciences* (Michie 2001) tells us, is that it is:

. . . a very widely used term in the social sciences, but more technical, focused treatment is relatively rare. Sociology's founding fathers each mentioned the term but did not provide significant statements about it (2001: 1529).

The key assumptions about social structure seem to be that it refers to what is beneath the surface ebb and flow of social life, that it shapes everyday circumstances and actions, and that it encompasses things that are social phenomena *sui generis* as opposed to those things that can be reduced to human genetics or evolutionary psychology. Social structure is implicated in what makes order possible, but it also contains the dynamics of change. As Robert Merton argued:

In [the work of Fromm, Freud or Hobbes], the social structure is seen as an evil necessity, first springing from and later restraining the free expression of hostile impulses . . . In contrast to such anarchistic doctrines, functional analysis conceives of the social structure as active, as producing fresh motivations which cannot be predicted on the basis of knowledge about man's native drives. If the social structure restrains some dispositions to act, it creates others (Merton 1968 [1957]: 175).

Without feeling that we have to sign up to a Mertonian vision of society, I think we can take his point that the social structure is not like a building that protects or imprisons the seething desires of human nature. It enters into human knowledge, desire and action, creating the dynamics for change

in the social structure itself. In developing his version of functionalism Merton anticipated some of the more recent theorising about the duality of structure (Bryant and Jary 1991), where structure refers to the generative rules and resources upon which action and interaction can be built (Giddens 1976).

In a sense, the existence of a concept of social structure has legitimated sociology's claims to disciplinary distinctiveness, but the historical emphasis on marking out the terrain of the social may also be seen to have deflected sociology from things to do with health. In developing her arguments about the intellectual and political history of medical sociology, for example, Gerhardt (1989) began by reviewing the sociological founding fathers' neglect of health and illness and concluded:

Thus classical sociological thought attributed little significance to the physical or mental state of the person, while problems of social organization and structure were prominent. Health was a sociological *non-issue* while sociology rigorously sought to define a terrain all its own (xiii, emphasis in the original).

On this reading of history, medical sociology emerged in the absence of any general sociological conceptualisation of, or interest in, the things that medical sociology studied. From this inauspicious starting-point, I am going to attempt to do three things. First, very briefly to review the use of the concept of social structure and related terms within medical sociology generally; secondly, to discuss the contributions made by this Journal to our understanding of the impact on health of whatever social structure may be taken to be; and finally to offer some suggestions as to where we might go next. Although Gerhardt may be right to identify an absence of interest in health, illness and medicine in classical sociology, I take encouragement from the industrialist and part-time social scientist Friedrich Engels (1982 [1892]). In his powerful description of the emergence of industrial capitalism – from which the discipline of sociology itself also emerged (Giddens 1971, Nisbet 1970) – Engels found 'explanation enough' for the high mortality rates in the unsanitary conditions and unhappy experiences of Manchester, Salford and other industrial cities, and the emergent economic and social structures of the world of which they were an important part.

### **Social structure and medical sociology**

The defining texts of medical sociology contain only limited and brief references to social structure, or indeed to general developments in economy and society. Nonetheless, again prefiguring more contemporary theorising, Mechanic (1968) wrote of the need to move 'toward a social theory of mortality', a project that '... requires integration between variables on a social-structural level and those on the social-psychological level' (1968: 179). In most other texts from

this early period in the history of medical sociology the theoretical challenge of 'integrating' social structure and social psychology is left to one side (Susser and Watson 1962). This may be taken to reflect the early dependence of medical sociology on medical patronage and the related need for the sub-discipline to establish its place on medical curricula without confusing students whose minds were focused on the diseases contained in human bodies.

During the latter half of the 1980s, however, a greater confidence in forging links between medical sociology and general sociological themes and concerns became apparent. The desire for a *sociology of health and illness* to be something more than *medical sociology* had been expressed for some time (Stacey 1978), not least in the name given to this Journal. Stacey (1988) pushed this movement towards greater autonomy in health matters still further in her pointedly entitled text on *The Sociology of Health and Healing*, where she called specifically for a more sociological approach in which social structure and related concepts would be prominent. In an even more explicit attempt to reconstruct 'medical sociology' in sociological terms it was argued:

. . . the sociology of medicine should be more concerned to identify itself with the central theoretical problems of sociology as such; it is only by a shift towards the more theoretically formulated problems that the old dichotomy of sociology-in-medicine and the sociology of medicine will be finally surpassed (Turner 1987: 1).

Drawing explicitly on the classical inheritance Turner set out an agenda for a more theoretically-informed medical sociology, including a level of analysis that places health, illness and medicine in the context of a sociological analysis of power and social structure.

A more self-confidently sociological agenda is now commonplace in more recent UK textbooks (Nettleton 1995, Bury 1997, Annandale 1998) where the term social structure is used typically in the context of discussions of political economy and health inequalities; though the concept often floats rather alarmingly in semantic space. A stronger use of the concepts of structure and social structure is evident in some recent texts from the USA where they seem to encode a firm political or ideological allegiance. Freund and McGuire (1995), for example, have written not a standard textbook of medical sociology but rather:

. . . a critical, holistic interpretation of health, illness and human bodies that emphasises *power* as a key social-structural factor in health and in societal responses to illness (1995: xiii, emphasis in the original).

In similar vein Brown (2000) writes that:

. . . it is necessary to situate health and illness in the framework of larger political, economic and cultural forces. This approach to medical

sociology is a modern and critical one, which offers a more structural perspective than do traditional analyses of health and illness (2000: ix).

Conrad and Kern (1986) similarly emphasise the need to develop ‘... our understanding of the relationship between social structure and health and illness’. They continue:

To make the connection between social structure and health, we must investigate how social factors such as the political economy, the corporate structure, the distribution of resources, and the uses of political, economic and social power influence health and illness and society’s response to health and illness (1986: 2).

Social structure, therefore, is invoked to make a specifically sociological claim about how things need to be conceptualised and investigated, placing the study of power, however defined, at the heart of the sociology of health and illness. Each of these more recent contributions to defining the field has emerged in the wake of the post-modern/post-structuralist turn in western thought, in which old principles of structure, stratification and division have been dissolved in a warm bath of pluralities, mobilities and differences, and each in its own way reflects varying degrees of embrace of, or resistance to, this trend. Indeed, perhaps the very emphasis on a tougher concept of social structure is a response to the post-structuralist turn in intellectual life. Holding firm to social structure is now not only an important defence against medicine’s biological reductionism, but also a form of resistance to post-structuralist subjectivism.

In recent years three key developments have opened things up for work on social structure and health. First, in the health inequalities field, the need for something other than more and better epidemiology has become apparent, with the development of more complex multi-level explanations for the relationships between social structures, social relationships and health (Bartley *et al.* 1998, Marmot and Wilkinson 1999, Graham 2000, Berkman and Kawachi 2000). Secondly, in sociological theory itself there has been the development of a more sophisticated and sensitive analysis of the relationship between structures and human experiences, notably in Giddens’ concepts of ‘duality of structure’ and ‘structuration’ (Giddens 1984, Bryant and Jary 1991), and in the work of the late Pierre Bourdieu (1977, 1984, 1999). Thirdly, after years of untrammelled ‘possessive individualism’ in political life, the resurrection of an interest in the determinants of health in public policy (Secretary of State 1999, National Assembly for Wales 2000, 2001, Welsh Assembly Government 2002) has created space for more specifically sociological contributions to interdisciplinary debate on the connections between structures, ideologies, policies, contexts, lifecourses or lifecycles, and their impact on health and wellbeing (Graham 2002, Navarro and Shi 2001).

In reviewing the contribution of *Sociology of Health and Illness* to our understanding of the relationships between social structure and health I will be looking at the ways in which it has responded to the kinds of debates to which I have referred, drawing on a variety of other disciplines but re-framing the debates in sociological terms. Returning to the concern that health is a non-issue for a general sociology more concerned with large issues of structure and organisation, it seems to me that the key aspect of social structure relevant to health is surely the unequal nature of those structures themselves, and the impact of that on the modern equivalent of the 'unhappy abodes of filthy misery' observed by Engels amongst the working class in England in 1844. In short, understanding the relationships between social structure and health involves developing what Gerhardt referred to as a 'deprivation-domination' model, linking individual misery and ill-health to the distribution of resources and inequalities in power.

### **Inequality and social structure**

In an early contribution in this Journal to the debate on health inequalities, Blane (1985) recalled the world of Engels and his contemporaries:

Although social class differences in the health of the British population have been recorded since the mid-nineteenth century (Chadwick 1842), there is still disagreement about the causes of this phenomenon. *Inequalities in Health* (DHSS 1980), more widely known as the Black Report, is the most recent authoritative contribution to this debate (1985: 423).

Black and his colleagues identified four possible types of explanation of class differences in health: measurement artefact; natural or social selection; materialist/structuralist; and cultural/behavioural. They came down very firmly in favour of the materialist/structuralist explanation, as does Blane in his commentary. Only materialist/structuralist explanations, it was argued, could simultaneously account for the improvements in the general health of the population and the maintenance of class differences in health. The primacy of some kind of materialist/structuralist framework was later reviewed and supported by Whitehead (1987).

During this period, a number of papers in *Sociology of Health and Illness* made important contributions to the discussion. Blane, as we have seen, favourably assessed the Black Report's preference for a materialist/structuralist explanation, examining other sources of evidence alongside that produced by Black. Bloor *et al.* (1987) followed Illsley (1986) in trying to rescue other explanations, in this case the artefact explanation, from the dustbin, arguing that they contributed more to mortality differentials than Black credited. Similarly, although not a direct comment on Black, Bartley (1988)

explored the strength of selection and causation arguments in looking at related data on the relationship between unemployment and health, pointing to the considerable difficulties involved in disentangling the elements and directions of causal processes.

There was disagreement about the strength of the materialist/structuralist types of explanation over others, but the development of this discussion was limited to some extent by dependence upon cross-sectional mortality data. In addition, following the publication of the Black Report, the debate about class and health became ideologically polarised, oversimplifying the arguments in response to the class-war climate of the times<sup>1</sup> (Macintyre 1997). As Klein (1991) argued, building on the earlier arguments of Illsley (1986), the Black Report was ‘. . . part of a political programme’ and in the context of Thatcherism there was little room for political and intellectual compromise, and little scope for a nuanced epidemiological analysis.

Although the Black Report itself was very conscious of the fact that ‘choosing between such complex and sometimes competing approaches’ was ‘a daunting task’ (Townsend and Davidson 1988: 114), it is also true that in the research following the Black Report there was:

. . . the sense that there were two or more opposing or polarised views, with proponents of each trying to convince the others, and an audience, of the correctness of their views (Macintyre 1997: 731).

The distinctions between material circumstances versus behaviour, or selection versus causation, were in danger of becoming ‘false antitheses if treated as being mutually exclusive’ (MacIntyre 1997: 740). However, from the point of view of the development of a sociological analysis of health inequalities, the materialist/structuralist explanation provided an important bridge between the sociological ‘non-issue’ of health and the wider interests among general sociologists in social structure and action. It is worth quoting Blane’s argument at some length:

The Black Report notes that materialist explanations take various forms . . . It is at the most grounded level . . . that the best evidence can be found. Scattered throughout the literature are the reports of studies that have examined the effects upon health of single factors such as hazardous work, inadequate diet and poor housing. Although it is possible to consider these factors in isolation, it is important to bear in mind that they can be traced back to the *social structure* via intermediate level phenomena such as the distribution of income and wealth and the organization of industry (1985: 434–5, emphasis added).

The importance of the materialist/structuralist explanation in the Black Report, therefore, is that it implied a number of possible theories of health inequality, and in so doing opened a window not only onto the causes of

premature death and long-term illness in society, but onto the structure and constitution of society as a whole.

Since that time important methodological developments have taken place. A number of longitudinal data sets have become available for analysis: the Office for National Statistics' Longitudinal Study (Fox and Goldblatt 1982), the 1946 National Study of Health and Development (Wadsworth and Kuh 1997) and the 1958 National Child Development Study (Power *et al.* 1996). Analyses of a range of data have shown that health inequalities exist, that they are not due to statistical bias or social selection, and that they are widening (Shaw *et al.* 1999).

In a sense, therefore, research on health inequalities is moving beyond the pitfall of false antitheses. In thinking about the causes of health inequality the Black Report and much of the post-Black '(neo-)positivist programme of research' (Scambler 2002: 94) has focused on occupation or socio-economic group or status as an indicator of the 'material' aspects of social structure. Some recent exemplars of such research, however, have attempted to unpack some of the assumptions implicit in this. For example, in one of a number of contributions (Dahl 1991, Dahl and Kjaersgaard 1993), analysis of Norwegian data has demonstrated that occupational status is a stronger predictor of health outcomes (measured by three different indicators) than personal income or education, but also draws attention to the complex statistical relationships between these class-related factors (Dahl 1994).

Against a background of dissatisfaction with conventional ways of conceptualising class in relation to the experiences of women, feminist sociologists have analysed the relationships between class, gender and the conditions of both domestic and formal labour, under changing historical circumstances (Thomas 1995, Bartley *et al.* 1992, Hunt and Annandale 1993). Similarly, in an interesting study of limiting long-standing illness in children, for example, Cooper *et al.*'s (1998) analysis of the British General Household Surveys for 1991–1994 showed that indicators of material disadvantage in households were more closely associated with children's health status than was social class of the head of household. In another important study identifying high infant mortality amongst particular ethnic groups, a more complex picture was found of infant deaths than would be expected on the basis of class analysis alone. More disaggregated measures of 'material conditions' are needed in order the better to identify health risks and to understand the configuration of economic, political and power differentials (Andrews and Jewson 1993: 142).

Social class remains a key concept in understanding the relationship between social structure and health (Graham 2002), but:

. . . 'social class', at any given point is but a very partial indicator of a whole sequence, a 'probabilistic cascade' of events which need to be seen in combination if the effects of social environment on health are to be understood (Bartley *et al.* 1998: 11).

The concept of a probabilistic cascade is an alluring one, expressing the way in which things can build up over time, exposing people to different kinds of risks and benefits at different points in the cycle or course of life – the way in which: ‘. . . advantages and disadvantages tend to cluster cross-sectionally and accumulate longitudinally’ (Blane 1999). Prandy (1999) has developed a similar argument, insisting that there is no ‘. . . way of conceptualising and measuring “class” that will provide a single, satisfactory “causal narrative” in this area’ (Prandy 1999: 480):

‘Class’ is inevitably a summary term that relates to a multi-faceted phenomenon. A good measure of stratification is not a measure of a specific aspect, but one that provides a good summary of the wide range of social experiences that the term ‘class’ encompasses (1999: 490).

It is not, therefore, only the availability of new or maturing sources of longitudinal data that have enabled more complex forms of analysis to take place. There is also a new willingness to think creatively about purportedly explanatory concepts and categories. The work of Wilkinson (1996) and colleagues (Blane *et al.* 1996, Marmot and Wilkinson 1999, Lobmayer and Wilkinson 2000) has been key in opening up lines of inquiry about the relationship between income inequality and the quality of social life in different social structures, and the pathways between these and patterns of health. This leads to the exploration of neo-Durkheimian, structural-functionalist concepts of the destruction of social cohesion and trust in highly unequal societies and the effects of experiences of subordination and disempowerment on health outcomes.

The new pluralism implied by these perspectives can be seen in comparing the Acheson Report (*Independent Inquiry into Inequalities in Health* 1998) with the Black Report. The former’s use of the Dahlgren and Whitehead (1991) model of the ‘social determinants of health’ with its ‘layers of influence’ is in sharp contrast to Black’s explanatory categories. The key to the Dahlgren-Whitehead model is its porosity, its receptivity to the complex interactions and relationships between economic conditions, social structure, social relationships and networks, individual behaviour and psychosocial factors. What none of this work does, however, is to explore either the generative mechanisms that produce the indicators of social inequality in the first place, or the complex intersection of structure and agency within the material world of everyday life.

### **Beyond epidemiology**

Much of the sociological literature on health inequalities has struggled to move (or to know how to move) beyond a ‘social factors’ approach that

mimics epidemiology, bracketing out any broader reflection on either structural or experiential dimensions. It has been suggested that there are three key limitations to the literature on health inequalities (Popay *et al.* 1998). First, existing frameworks and methods fail to capture the complexity of Prandy's 'causal narrative' in the health inequalities field, particularly that associated with the role of social organisations, processes and relationships at a macro-level in the generation of inequalities. Secondly, and linked to the first point, there has been a lack of attention to the development of concepts which will help explain why individuals and groups behave the way they do in the context of wider social structures – to link agency and structure, to use the sociological language. In particular the theoretical potential of the 'subjective' dimensions of health inequalities has been neglected. Thirdly, the importance of developing work on the re-conceptualisation of the notion of 'place' within explanatory models of inequalities in health is highlighted. Emerging from this analysis and linked to all three of these is a fourth limitation: a paucity of research on inequalities in health that incorporates a robust historical perspective on both agency and structure.

In a little-known article in one of the radical magazines that kept the left hopeful during the dark days of Conservative supremacy in the UK, Paterson critiqued the political ontology of health inequalities research that he felt underpinned the emphasis on 'risk factors' at one end and disease at the other:

By its focus on disease as a problem of incidence, conceived of as a product of a number of mechanically related risk factors, epidemiology denies that the structure of social relationships in society also has a primary determining role . . . (1981: 27).

More recently some of these arguments have been re-discovered (Shim 2002) and used to examine the ways in which the multifactorial, epidemiological model of disease causation has been constructed as a paradigm for conceptualising the relationship between disease and 'host characteristics'. Drawing on concepts from the social studies of science literature, Shim argues that the multifactorial models and accompanying representations of race, class and gender amount to a black box in which 'individualised inputs' to epidemiological sociology are routinised, while the interior workings of the black box – how inequality, poverty, and powerlessness affect health – remain unexamined (Shim 2002);

Epidemiological approaches to managing race, class and sex/gender distil the effects of *social* and *relational* ideologies, structures and practices organised around such differences into the characteristics of discrete and self-contained individuals [ . . . ] Epidemiology thereby renders invisible the very social relations of power structuring material and psychic conditions and life chances that contribute to the stratification of health and illness (2002: 134).

Although the statistical inputs and outputs to the black box seem to be precise, predictable and testable in relation to the future probability or distribution of health and illness, ‘. . . such work also obscures considerable uncertainty over exactly *how* such inequalities are produced, that is, what exactly *about* race, class and sex/gender contributes to chronic disease’ (Shim 2002: 136). Epidemiology constructs a ‘seemingly certain story’ (2002: 136), a strong causal narrative in Prandy’s terms, but the precision of its concepts, the neatness of its predictions, and the strength of its statistical associations bring us no nearer to a sociological understanding of the contents of the black box.

Although Shim’s perspective and arguments, based on a review of key textbooks and studies, offer an innovative way of looking at the limitations of epidemiology, her own data do not take account of more recent critiques and challenges to conventional epidemiology that have emerged in the health inequalities literature. Macintyre, for example, implicitly recognises the dangers of the black box when arguing that health inequalities research now requires a ‘. . . more micro-level examination of the pathways by which social structure actually influences mental and physical health and functioning and life expectancy’ (1997: 736–7). She suggests this would mean adopting a ‘more fine grained’ approach (1997: 740) which explores not only the relative importance of categories or factors ‘. . . but also their possible interactions or additive effects’ (1997: 740). Importantly, she notes that:

. . . the social context needs continually to be taken into account and is likely to result in more differentiated models (there is no a priori reason to suppose that the processes generating inequalities are the same at the top as at the bottom of the social scale, among men as compared with women, or in Northern Europe as compared with Mediterranean countries, the USA, or the Far East (1997: 740).

In the literature on health promotion there have been attempts to demonstrate how developments in modern social theory may assist in resolving some of the difficulties in reconciling free will and determinism in thinking about the determinants of health (Kelly and Charlton 1995). In work on structuration theory (Bryant and Jary 1991), they suggest, there may be concepts, or ways of thinking, which can help to enhance understanding of the interaction between the experience and action of individual human beings – seen potentially at least as creative agents acting on and shaping the world around them – and the structures of power and control within which they are embedded.

Prandy’s concept of a ‘causal narrative’ is helpful here, because part of what is required in this new enthusiasm for the fine grain is an understanding of the narratives of people’s lives, the personal troubles and the public issues, over time and in space, in relation to multiple facets of identity and social position. This large canvas may turn out to be too big for our drawings,

but to get anywhere near a complete picture we need more than one colour and we need brushes of different sizes and textures. The traditional causal narrative is not sufficient to provide a meaningful interpretation of the duality of structure in the production of ill-health. Prandy's discussion of the way in which the concept of 'class' should provide a summary of social experiences echoes E.P. Thompson's powerful defence of his approach to understanding class in history:

By class I understand a historical phenomenon, unifying a number of disparate and seemingly unconnected events, both in the raw material of experience and in consciousness. I emphasise that it is a *historical* phenomenon. I do not see class as a 'structure', nor even as a 'category', but as something that in fact happens (and can be shown to have happened) in human relationships (Thompson 1968: 9).

How do we understand the contextual processes whereby class and other elements of social structure happen in human relations, affecting a range of outcomes including health?

### **Theorising contexts and connections**

As we have seen, Shim's (2002) argument is that in traditional risk factor epidemiology what may be conceptualised initially as multi-level 'layers of influence' become transmuted methodologically into attributes of individuals, and lose their structural or contextual qualities. In operationalising context and individual behaviour separately, or in distinguishing between things that are *contextual* and things that are *compositional* in multi-level modelling (McCulloch 2001), we lose the qualities of relatedness and connectedness that they express (Mitchell 2001). As Gerhardt (1979) argued in a related context: 'What is needed is a *theoretical* model to account for the intervening process between stressful life-events and illness', but the grand and possibly misplaced ambition of an integrated social theory of mortality and morbidity (Mechanic 1968) seems as far as ever from the everyday practice of medical sociology.

Developing ideas from earlier empirical work (Calnan and Williams 1991), Simon Williams (1995) has noted that much of the literature has looked at the relationships between either structure and behaviour or beliefs and behaviour. The evidence suggests both that beliefs have a weak independent effect on behaviour and that behavioural change seems to be much more beneficial for those higher up the social class hierarchy than for members of lower socio-economic groups. 'In this respect . . .' Williams argues, '. . . research is beginning to unravel the complex inter-play between social structure, beliefs about behaviour and its meaning, and patterns of health related behaviour' (1995: 580). However, echoing the point made by Gerhardt,

he argues: 'A key question, in this respect concerns how, exactly, we are to *theorise* the structure-agency problem in relation to health-related behaviour?' (1995: 581, emphasis in the original).

Williams then enters a lengthy exploration of Pierre Bourdieu's attempts to transcend conventional dualisms between individual behaviour and structural determinants. In contrast to research and theorising about lay knowledge in medical sociology (G. Williams and Popay 1994, Popay and G. Williams 1996, Popay *et al.* 1998), at the heart of Bourdieu's concept of the 'logic of practice' is the assumption that people, as they move through time and space, do not know what they know; that the social practices of everyday life are 'outside conscious control and discourse' (Bourdieu 1990: 61). Everyday knowledge is, in Giddens' terms, routinised in 'practical consciousness', not reflexively and knowingly held in the 'discursive consciousness' of which 'narrative reconstructions' (G. Williams 1984, Popay *et al.* 1998) may be seen as a particular form.

Simon Williams goes on to explore the connections between this notion of practical knowing and the concept of the 'habitus' in Bourdieu's work. In the same deep vein as much classical sociological theory, Bourdieu is searching for something that links practices to structures without falling back on either individual freedom of choice and decision, or hidden, mysterious, all-powerful, almost theomorphic social structures – the either/or that was at the heart of much of the post-Black debate on health inequalities. The habitus is '... an acquired system of generative mechanisms objectively adjusted to the particular conditions in which it is constituted' (1977: 95), a 'structuring structure' that shapes world-views while making them seem perfectly natural. What Bourdieu seems to be saying, therefore, to paraphrase a German philosopher from an earlier period, is that people make their own history, through their social practices, but that the conditions under which these practices are formed are neither known nor chosen by them.

There are many objections to all this, as Simon Williams notes. In spite of Bourdieu's use of the concept of 'strategy' as a way of encapsulating the interplay of freedom and constraint that allows subjects to know without knowing, there does seem to be very little space left for human agency; the kind of agency that makes the happenings of the habitus not only practicable but also narratable or discursive, providing the basis for individual or collective hope, protest or resistance. In the language of modern Scottish realism, without the stories that are '... there to help ye out, when ye're in trouble, deep shit ...' (Kelman 1995: 52), the 'weight of the world' (Bourdieu *et al.* 1999) would seem very heavy indeed.

Recent work by Frohlich and her colleagues (2001, 2002) has widened the contextual focus still further. They argue, like Paterson (1981) and Shim (2002), that one of the fundamental barriers to developing better understanding of the relationships between structure, context and ill-health is the dominant paradigm of risk factor epidemiology that disguises its theoretical limitations under methodological sophistication. This theoretical weakness,

they argue, becomes an epistemological limitation when sociologically-inclined epidemiologists like Syme argue the case for a more social epidemiology (Berkman and Kawachi 2000). Frohlich *et al.* (2001) argue that this epistemological problem is most evident in the post-Black category of materialist/structuralist factors when they are variously operationalised methodologically as socio-economic factors such as income, occupation or education, but treated ontologically as risk factors attributable to individuals. Following Macintyre (1997), Frohlich *et al.* argue that we need to distinguish between 'material' (de-contextualised) and 'materialist' (contextualised) explanations. Developing a conceptualisation similar to that of the 'causal narrative' they say:

The issue [ . . . ] is that we need to go beyond the enumeration of, and the attribution of direct causation to, variables in social epidemiology. The variables used in social epidemiology represent social relations rather than objectified concepts. What is missing is a discussion of the relationship between agency (the ability for people to deploy a range of causal powers), practices (the activities that make and transform the world we live in) and social structure (the rules and resources in society). Without such an understanding, factors associated with people's disease experiences within a context tend to be denuded of social meaning (2001: 781).

This strong statement takes forward in a very constructive way the earlier critiques of risk factor epidemiology to which we have referred, and echoes similar sociological criticisms of the literature on life events and mental illness (Gerhardt 1979, Davies and Roche 1980, G. Williams 1982). At the heart of this is the Weberian imperative that understanding at the level of meaning – *verstehen* – has to be integral to the sociological analysis of cause and effect, not added on as an afterthought, nor ghettoised in 'qualitative sociology'. Recent developments in multi-level modelling which attempt to separate out contextual and compositional factors create yet another false dichotomy, undermining our ability to understand the conjoint influence of people and places on health outcomes. In a detailed argument, Frohlich *et al.* (2001) go on to analyse lifestyle as a set of social practices and then examine this in relation to a set of theoretical perspectives derived from Giddens, Bourdieu and the work of the economist Amartya Sen and the philosopher Martha Nussbaum on the relationships between capabilities and resources (Sen 1992, Nussbaum and Sen 1993). On this basis they argue that we need a concept of 'collective lifestyles' that theorises practices as embedded in shared contexts, and which views structure and agency as 'recursive and co-dependent' (2001: 788):

The mechanisms of recursivity are therefore, at once, both individual and collective, as the individual 'acts out' the practices that feed into a larger system. It is not only the context (or structure) that acts on individuals,

but individuals are constantly recreating the conditions that make this structure (the context) possible (2001: 792).

They then go on to explore how this works in relation to smoking among children, and develop new ways of thinking about the intersection of structure and agency in relation to neighbourhood smoking norms, rules and resources, an analysis that is fully developed elsewhere (Frohlich *et al.* 2002).

### **Conclusion: history is what you live**

There is welcome evidence of new thinking about the social structuring of human health and illness; new thinking that draws on some very old sociological arguments about the need to theorise what people do as something more than either an individual lifestyle-choice or the one-way outcome of structural determinants which are themselves produced in some under-theorised way by capitalism, post-industrialism or globalism. What is missing from this work is an analysis of the relative determination of different sorts of structures, in particular as they relate to the biographies and life-courses of individuals and social histories of places and populations (Blane 1999, Curtis and Rees Jones 1998, Graham 2002, Mallinson *et al.* 2003). Inside the occasionally convoluted theorising of the late Pierre Bourdieu is a simple message: 'The social world is accumulated history' (1986: 241), and the stories about the 'weight of the world' (Bourdieu *et al.* 1999) hammer home the point that structure can be very heavy indeed, undermining individual and collective capacities and capabilities.

A graphic and moving description of the weight of the world in a particular place and time can be found in the posthumous autobiography of Ron Berry (1998), a genuinely proletarian novelist who spent several years as a collier in the Rhondda Fawr in South Wales before 'release came via Hitler in 1940' (1992: 42). Recalling men who worked with him he wrote:

Graig level killed a few men, besides silicotics, arthritics, ripped flesh, smashed bones and damaged souls . . . Black historied all right, the Graig level, where we slaved in dust and water, where I worked with or in the same headings as Sid Hullen (dust, dead), Jimmy Shanklyn (rheumatic fever, dead) . . . Walt James (dust, dead), Cliff Williams (TB, dead) . . . Percy Prior (dust, suicide) . . . George Thomas (dead), Goronwy Evans (dead), my father (dust, arthritis, dead) . . .

The names and causes of death continue for a whole page before concluding:

Just a small level, the Graig, where lads were punished by grinding toil, and before that weakened by the diet of beggars.

These men were unsung in any chronicle of existence (1998: 41–43).

This excerpt provides a salutary reminder of the way in which the balance between agency, context and structure is itself highly determined by structural forces. At certain times in particular places these forces are very often overwhelming, even in situations in which collective lifestyles and capabilities are supported by forms of defensive political mobilisation that are themselves very powerful (Francis and Smith 1980). Moreover, as Blane (1985) emphasised, these structural determinants are part of something bigger than any specific occupational factor; and the expansionary requirements of capitalism described by Ron Berry sucked in women's labour as much as that of men (Thomas 1985); and the effects on women's lives and health were, if anything, even more devastating:

The unremitting toil of childbirth and domestic labour killed and debilitated Rhondda women as much as accidents and conditions in the mining industry killed and maimed Rhondda men [ . . . ] For age group 20–44 years, in the Pontypridd Registration District, the death rates for women are significantly higher than for men for the whole period [1878–1910] (Jones 1991: 124–6).

These accounts reflect the impact of life in 'unhappy abodes of filthy misery' similar to those described by Engels. The social and economic conditions have changed, and patterns of mortality have improved dramatically, but the epistemological point remains: if we are to understand the impact of social structures on health we need to comprehend both the historical, real-time processes that particular structures and locales embody; and we need to enter into the way in which these processes shape the lifecourses and biographies of individuals (Blaxter 2000, Graham 2002, van de Mheen *et al.* 1998). The exceptionally high rates of limiting long-term illness in contemporary South Wales (Senior 1996) would seem to require just such a sociologically imaginative analysis, as well as innovative policy responses.

While it is possible to understand the structures and the contexts in some kind of Bourdieuan quasi-objective terms, I would continue to argue that we need to explore what practices mean if we are to understand processes of transformation and change. What people know is not simply datum for epidemiological or sociological extraction. It *co-constitutes* the world as it is, and helps social scientists to understand *how* structures determine health and wellbeing through contexts and practices. In some of the work that colleagues and I have undertaken over a number of years we explore 'lay knowledge' as a way into theorising the structure-agency problem. We have done this by looking at the recursive relationships, to use the jargon, between people's knowledge and the places or locales in which they live (Williams and Popay 1994, Popay and Williams 1996, Williams *et al.* 1995, Popay *et al.* 1998, Gatrell *et al.* 2001, Popay *et al.* 2003 in press). In this work we display the relationships between structures, contexts and practices through the exploration of 'knowledgeable narratives' (Williams 2000) that contextualise

explanations and connect context to composition, places to people. In one study in inner city Salford in the north west of England, for example, we looked at people's perceptions and understandings of health risks. In talking about unemployment, poverty and crime, the narratives produced were undeniably knowledgeable, theoretical and discursive. One respondent said:

I think the biggest health risk is mentally . . . 'cause it's a lot of pressure and there's nothing really for you to do . . . you're sort of segregated all the time.

Here we see a lay causal narrative that contextualises the impact of social structure on health in a very powerful way. Another theorised the inter-relationship of behaviour and structure:

Smoking and drinking and drug taking. I put it down to one thing . . . until money is spend on these areas . . . there doesn't seem to be much point in trying to stop people smoking and what else. As long as the environment is going down the pan the people will go down with it (Williams *et al.* 1995: 123, 125).

As we have seen, risk factor epidemiology tends to assume a freedom to make healthy choices that is out of line with what many lay people experience as real possibilities in their everyday lives. Knowledgeable narratives illustrate the need to contextualise risks – smoking, diet, alcohol, lack of exercise – by reference to the wider material and environmental conditions in which the risks are embedded. The respondents understood the behavioural risk factors that made ill-health more likely and for which they were, in a limited sense, responsible, but they were also aware that the risks they faced were part of social conditions that they could do little to change. For these working class Salfordians the 'way of life' – in this case unemployment, poor housing, low income, stressful and sometimes violent lives – provided a context for 'making sense' of smoking, drinking and drug-taking and all the other 'behaviours' that risk-factor epidemiologists measure. These lay narratives, it seems to me, are not residuals stuck in the otherwise smoothly functioning bowels of contemporary societies, but complex bodies of contextualised rationality that are central to our understanding of social structure and its impact (Good 1994).

Here we see, therefore, a reflexive understanding of what Frohlich *et al.* (2001) call 'collective lifestyles' and an analysis that recognises the limited purchase that practices and capabilities can have on change in the more deprived areas of economically developed societies. In a more recent analysis of data from a large study of people's perceptions of health inequalities, the intense limitations on people's capacities to deploy 'causal powers' were very evident in particular places (Popay *et al.* 2003 in press). One single mother living on an estate with a 'reputation' told us:

The doctor put me on Prozac a few months back, for living here, because it's depressing. You get up, you look around, and all you see is junkies . . . I know one day I will come off, I will get off here. I mean I started drinking a hell of a lot more since I've been on here. I drink every night. I have a drink every night just to get to sleep. I smoke more as well. There's a lot of things . . . (2003 in press)

In these quotations from research interviews words and phrases like 'segregated all the time', 'the people will go down with it' and 'there's a lot of things . . .' carry a heavy semantic load that it is difficult to unpack with any certainty or finality. However, they do direct us to acknowledge the ability of people to turn routine, taken-for-granted knowledge into discourse or narrative, and the need to find ways of interpreting the relationship between structure, context and experience through a reading of these kinds of accounts.

In thinking about the 'weight of the world' Bourdieu (1999) argued:

. . . using material poverty as the sole measure of all suffering keeps us from seeing and understanding a whole side of the suffering characteristic of the social order which, although it has undoubtedly reduced poverty overall (though less than often claimed) has also multiplied the social spaces (specialized fields and subfields) and set up the conditions for an unprecedented development of all kinds of ordinary suffering (Bourdieu 1999: 4).

The link with individual biography and lifecourse is a new and important dimension of research on the connections between social structure and health. This does not imply that material circumstances are not crucial, but rather that one of the routes through which material disadvantage affects behaviour and health is through people's ability to construct a sense of identity and purpose under very difficult social and economic conditions. In turn, their ability or capability to do this may be linked to the relationship between the critical periods and pathways of their own biographical lifecourses and the places in which they are living (Graham 2002, Popay *et al.* 2003 in press).

In thinking about developments in the analysis of social structure and health there is a widespread acceptance of the need for a deeper and more fine-grained understanding of the relationship between the individual and his or her social context. In some ways poverty, economic inequality and the social conditions associated with them remain 'explanation enough' of excess mortality and morbidity in particular populations and places. However, two crucial social scientific problems remain for the contemporary analyst. First, how do we build structural explanations that do not reduce social and economic forces to individual attributes or deficits? Secondly, how do we understand the ways in which large global forces work their way through the duality of structure into contexts, relationships and narratives? The

world price of steel falls in the context of a strong domestic currency, and thousands of people across Wales lose their jobs in places that have already experienced years of relentless de-industrialisation. While we may say that the health impact of these changes can be explained in structuralist/materialist terms, the generational, class and gender pathways through which the impacts are felt will be variable and complex (Elliott *et al.* 2001). Moreover, with a policy agenda that seeks, for example, to ‘. . . build bridges between organizations and sectors for more joint action to increase well-being across communities’ (Welsh Assembly Government 2002: 3), the challenges facing those who want to contribute to knowledge-based policy are considerable.

What I have shown in this review is that the continuing methodological and theoretical debate on inequalities in health needs to be broadened beyond social epidemiology to include consideration not just of different methods and techniques, qualitative or quantitative, but also of alternative frameworks of understanding embedded in sociology, history and geography. Undergraduate students learn that sociology is one of the *geisteswissenschaften*, the historical or human sciences concerned with the understanding of particular groups and contexts. A sociology of health inequalities and social structure that remains too closely tied to social epidemiology is missing the opportunity to bring the full possibilities of an historically-informed sociological imagination to bear on some of the major concerns of contemporary societies.

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## Acknowledgements

I am grateful to Paul Atkinson for lending me, at short notice, his complete bound volumes of *Sociology of Health and Illness*.

## Note

- 1 One of my favourite pieces of graffiti used to adorn a railway bridge in Levenshulme, Manchester, circa 1985: ‘Feed the poor! Eat the rich!’.

## References

- Andrews, A. and Jewson, N. (1993) Ethnicity and infant deaths: the implications of recent statistical evidence for materialist explanations, *Sociology of Health and Illness*, 15, 137–56.

- Annandale, E. (1998) *The Sociology of Health and Medicine: a Critical Introduction*. Cambridge: Polity.
- Bartley, M. (1988) Unemployment and health: selection or causation? *Sociology of Health and Illness*, 10, 41–67.
- Bartley, M., Popay, J. and Plewis, I. (1992) Domestic conditions, paid employment and women's experience of ill-health, *Sociology of Health and Illness*, 14, 313–43.
- Bartley, M., Blane, D. and Davey Smith, G. (eds) (1998) *The Sociology of Health Inequalities*. Oxford: Blackwell.
- Berkman, L. and Kawachi, I. (eds) (2000) *Social Epidemiology*. Oxford: Oxford University Press.
- Berry, R. (1998) *History Is What You Live*. Llandysul, Ceredigion, Wales: Gomer Press.
- Blane, D. (1985) An assessment of the Black Report's explanations of health inequalities, *Sociology of Health and Illness*, 7, 423–45.
- Blane, D. (1999) The life course, the social gradient and health. In Marmot, M. and Wilkinson, R. *Social Determinants of Health*. Oxford: Oxford University Press.
- Blane, D., Brunner, E. and Wilkinson, R. (1996) *Health and Social Organization: Towards a Health Policy for the 21<sup>st</sup> Century*. London: Routledge.
- Blaxter, M. (2000) Class, time and biography. In Williams, S.J., Gabe, J. and Calnan, M. (eds) *Health, Medicine and Society: Key Theories, Future Agendas*. London: Routledge.
- Bloor, M., Samphier, M. and Prior, L. (1987) Artefact explanations of inequalities in health: an assessment of the evidence, *Sociology of Health and Illness*, 9, 231–64.
- Bourdieu, P. (1977) *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bourdieu, P. (1984) *Distinction: a Social Critique of the Judgement of Taste*. London: Routledge.
- Bourdieu, P. (1990) *The Logic of Practice*. Cambridge: Polity.
- Bourdieu, P., Ferguson, P.P., Emanuel, S. et al. (1999) *The Weight of the World: Social Suffering in Contemporary Society*. Cambridge: Polity.
- Bryant, C. and Jary, D. (1991) *Giddens' Theory of Structuration: a Critical Appreciation*. London: Routledge.
- Bullock, A. and Stallybrass, O. (1977) *The Fontana Dictionary of Modern Thought*. London: Fontana.
- Bury, M. (1997) *Health and Illness in a Changing Society*. London: Routledge.
- Calnan, M. and Williams, S.J. (1991) Style of life and salience of health, *Sociology of Health and Illness*, 13, 506–29.
- Chadwick, E. (1842) *The Sanitary Condition of the Labouring Population of Great Britain, 1842*. Edinburgh: Edinburgh University Press.
- Conrad, P. and Kern, R. (1986) *The Sociology of Health and Illness: Critical Perspectives* (2nd Edition). New York: St. Martin's Press.
- Cooper, H., Arber, S. and Smaje, C. (1998) Social class or deprivation? Structural factors and children's limiting long-standing illness in the 1990s, *Sociology of Health and Illness*, 20, 289–311.
- Curtis, S. and Rees Jones, I. (1998) Is there a place for geography in the analysis of health inequality? In Bartley, M., Blane, D. and Davey Smith, G. (eds) *The Sociology of Health Inequalities*. Oxford: Blackwell.
- Dahl, E. (1991) Inequality in health and the class position of women – the Norwegian experience, *Sociology of Health and Illness*, 13, 492–505.

- Dahl, E. (1994) Social inequalities in ill-health: the significance of occupational status, education and income – the results from a Norwegian survey, *Sociology of Health and Illness*, 16, 644–67.
- Dahl, E. and Kjaersgaard, P. (1993) Trends in socio-economic mortality differentials in post-war Norway – evidence and interpretations, *Sociology of Health and Illness*, 15, 447–71.
- Dahlgren, G. and Whitehead, M. (1991) *Policies and Strategies to Produce Social Equity in Health*. Stockholm: Institute for Futures Studies.
- Davies, C. and Roche, S. (1980) The place of methodology: a critique of Brown and Harris, *Sociological Review*, 28, 3, 641–56.
- Department of Health and Social Security (1980) *Inequalities in Health: the Report of a Working Group (The Black Report)*. London: HMSO.
- Elliott, E., Williams, G.H. and O'Neill, M. (2001) Report 12 – Health. In Fairbrother, P. and Morgan, K.J. (eds) *Steel Communities Study (Volume 3, Part Two, Community Impact)*. Cardiff University: Regeneration Institute.
- Engels, F. (1982 [1892]) *The Conditions of the Working Class in England*. London: Panther.
- Fox, J. and Goldblatt, P. (1982) *Socio-Economic Differentials in Mortality: the OPCS Longitudinal Study*. London: HMSO.
- Francis, H. and Smith, D. (1980) *The Fed: a History of the South Wales Miners in the Twentieth Century*. London: Lawrence and Wishart.
- Freund, P.E.S. and McGuire, M.B. (1995) *Health, Illness and the Social Body: a Critical Sociology* (2nd Edition). New Jersey: Prentice Hall.
- Frohlich, K.L., Corin, E. and Potvin, L. (2001) A theoretical proposal for the relationship between context and disease, *Sociology of Health and Illness*, 23, 6, 776–97.
- Frohlich, K.L., Potvin, L., Chabot, P. and Corin, E. (2002) A theoretical and empirical analysis of context: neighbourhoods, smoking and youth, *Social Science and Medicine*, 54, 1401–17.
- Gatrell, A., Thomas, C., Bennett, S., Bostock, L., Popay, J., Williams, G. and Shahmatasebi, S. (2001) Understanding health inequalities: locating people in geographical and social spaces. In Graham, H. (ed) *Understanding Health Inequalities*. Buckingham: Open University Press.
- Gerhardt, U. (1979) Coping and social action: theoretical reconstruction of the life-event approach, *Sociology of Health and Illness*, 1, 195–225.
- Gerhardt, U. (1989) *Ideas about Illness: an Intellectual and Political History of Medical Sociology*. London: Macmillan.
- Giddens, A. (1971) *Capitalism and Modern Social Theory*. Cambridge: Cambridge University Press.
- Giddens, A. (1976) *New Rules of Sociological Method: a Positive Critique of Interpretative Sociologies*. London: Hutchinson.
- Giddens, A. (1984) *The Constitution of Society*. Cambridge: Polity.
- Good, Byron J. (1994) *Medicine, Rationality and Experience: an Anthropological Perspective*. Cambridge: Cambridge University Press.
- Graham, H. (ed) (2000) *Understanding Health Inequalities*. Buckingham: Open University Press.
- Graham, H. (2002) Building an interdisciplinary science of health inequalities: the example of lifecourse research, *Social Science and Medicine*, 55, 2005–16.
- Hunt, K. and Annandale, E. (1993) Just the job? Is the relationship between health and domestic and paid work gender-specific, *Sociology of Health and Illness*, 15, 632–64.

- Illsley, R. (1986) Occupational class, selection and inequalities in health, *Quarterly Journal of Social Affairs*, 2, 151–65.
- Independent Inquiry into Inequalities in Health (1998) *Independent Inquiry into Inequalities in Health* (the Acheson Report). London: the Stationery Office.
- Jones, D. (1991) Counting the cost of coal: women's lives in the Rhondda, 1881–1911. In John, A.V. (ed) *Our Mother's Land: Chapters in Welsh Women's History, 1830–1939*. Cardiff: University of Wales Press.
- Kelly, M. and Charlton, B. (1995) The modern and the post-modern in health promotion. In Burrows, R. and Nettleton, S. *The Sociology of Health Promotion*. London: Routledge.
- Kelman, J. (1995) *How Late it Was, How Late*. London: Minerva.
- Klein, R. (1991) Making sense of inequalities: a response to Peter Townsend, *International Journal of Health Services*, 21, 175–81.
- Lobmayer, P. and Wilkinson, R. (2000) Income, inequality and mortality in 14 developed countries, *Sociology of Health and Illness*, 22, 401–14.
- McCulloch, A. (2001) Ward-level deprivation and individual social and economic outcomes in the British Household Panel Study, *Environment and Planning A*, 33, 667–84.
- Macintyre, S. (1997) The Black Report and beyond: what are the issues? *Social Science and Medicine*, 44, 723–45.
- Mallinson, S., Popay, J., Elliott, E., Bennett, S., Bostock, L., Gatrell, A., Thomas, C. and Williams, G.H. (in press) Historical data for health inequalities research: a research note, *Sociology*.
- Marmot, M. and Wilkinson, R. (eds) (1999) *The Social Determinants of Health*. Oxford: Oxford University Press.
- Mechanic, D. (1968) *Medical Sociology: a Comprehensive Text* (2nd Edition). New York: The Free Press.
- Merton, R. (1968) *Social Theory and Social Structure*. New York: The Free Press.
- Michie, J. (2001) *Readers' Guide to the Social Sciences*. London: Fitzroy Dearborn Publishers.
- Mitchell, R. (2001) Multilevel modelling might not be the answer (a response to McCulloch, A. (2001)) *Environment and Planning A*, 33, 1357–60.
- National Assembly for Wales (2000) *Improving Health in Wales: a Plan for the NHS with its Partners*. Cardiff: National Assembly for Wales.
- National Assembly for Wales (2001) *Targeting Poor Health: Professor Townsend's report of the Welsh Assembly's National Steering Group on the Allocation of NHS Resources*. Cardiff: National Assembly for Wales.
- Navarro, V. and Shi, L. (2001) The political context of social inequalities and health, *Social Science and Medicine*, 52, 481–91.
- Nettleton, S. (1995) *The Sociology of Health and Illness*. Cambridge: Polity.
- Nisbet, R. (1970) *The Sociological Tradition*. London: Heinemann.
- Nussbaum, M. and Sen, A. (1993) *The Quality of Life*. Oxford: Oxford University Press.
- Paterson, K. (1981) Theoretical perspectives in epidemiology – a critical appraisal, *Radical Community Medicine*, Autumn, 23–34.
- Popay, J. and Williams, G.H. (1996) Public health research and lay knowledge, *Social Science and Medicine*, 42, 759–68.
- Popay, J., Williams, G., Thomas, C. and Gatrell, A. (1998) Theorising inequalities in health: the place of lay knowledge. In Bartley, M., Blane, D. and Davey Smith, G. (eds) *The Sociology of Health Inequalities*. Oxford: Blackwell.

- Popay, J., Thomas, C., Williams, G., Bennett, S., Gatrell, A. and Bostock, L. (in press 2003) A proper place to live: health inequalities, agency and the normative dimensions of space, *Social Science and Medicine*.
- Power, C., Matthews, S. and Manor, O. (1996) Inequalities in self-rated health in the 1958 birth cohort – lifetime social circumstances or social mobility, *British Medical Journal*, 313, 449–53.
- Prandy, K. (1999) Class, stratification and inequalities in health: a comparison of the Registrar General's Social Classes and the Cambridge Scale, *Sociology of Health and Illness*, 21, 466–84.
- Scambler, G. (2002) *Health and Social Change: a Critical Theory*. Buckingham: Open University Press.
- Secretary of State for Health (1999) *Saving Lives: Our Healthier Nation*. Cm 4386, London: the Stationery Office.
- Sen, A. (1992) *Inequality Re-examined*. Cambridge: Harvard University Press.
- Senior, M.L. (1996) Area variations in self-perceived limiting long-term illness in Britain, 1991: is the Welsh experience exceptional? *Regional Studies*, 32, 265–80.
- Shaw, M., Gordon, D., Dorling, D. and Davey Smith, G. (1999) *The Widening Gap: Health Inequalities and Policy in Britain*. Bristol: The Policy Press.
- Shim, J.K. (2002) Understanding the routinised inclusion of race, socio-economic status and sex in epidemiology: the utility of concepts from technoscience studies, *Sociology of Health and Illness*, 24, 129–50.
- Stacey, M. (1978) The sociology of health and illness, *Sociology*, 12, 281–309.
- Stacey, M. (1988) *The Sociology of Health and Healing: a Textbook*. London: Unwin Hyman.
- Susser, M. and Watson, W. (1962) *Sociology in Medicine* (2nd Edition). Oxford: Oxford University Press.
- Thomas, C. (1995) Domestic labour and health: bringing it all back home, *Sociology of Health and Illness*, 17, 328–52.
- Thompson, E.P. (1968) *The Making of the English Working Class*. Harmondsworth: Penguin.
- Townsend, P. and Davidson, N. (1988) *Inequalities in Health: the Black Report*. Harmondsworth: Penguin.
- Turner, B. (1987) *Medical Power and Social Knowledge*. London: Sage.
- Van de Mheen, H.D., Stronks, K. and Mackenbach, J.P. (1998) A life-course perspective on socio-economic inequalities in health. In Bartley, M., Blane, D. and Davey Smith, G. *The Sociology of Health Inequalities*. Oxford: Blackwell.
- Wadsworth, M. and Kuh, D. (1997) Childhood influences on adult health: a review of recent work from the British 1946 national birth cohort study, the MRC National Survey of Health and Development, *Paediatric and Perinatal Epidemiology*, 11, 2–20.
- Welsh Assembly Government (2002) *Well Being in Wales: Consultation Document*. Cardiff: Welsh Assembly Government.
- Whitehead, M. (1987) *The Health Divide: Inequalities in Health in the 1980s*. London: Health Education Council.
- Williams, G.H. (1982) Causality, morality and radicalism: a sociological examination of the work of George Brown and his colleagues, *Sociology*, 16, 167–184.
- Williams, G.H. (1984) The genesis of chronic illness: narrative reconstruction, *Sociology of Health and Illness*, 6, 175–200.

- Williams, G.H. (2000) Knowledgeable narratives, *Anthropology and Medicine*, 7, 135–140.
- Williams, G.H. and Popay, J. (1994) Lay knowledge and the privilege of experience. In Gabe, J., Kelleher, D. and Williams, G. (eds) *Challenging Medicine*. London: Routledge.
- Williams, G.H., Popay, J. and Bissell, P. (1995) Public health risks in the material world: barriers to social movements in health. In J. Gabe (ed) *Medicine, Health, and Risk (Sociology of Health and Illness Monograph Series)*. Oxford: Blackwell.
- Williams, S.J. (1995) Theorizing class, health and lifestyles: can Bourdieu help us? *Sociology of Health and Illness*, 17, 577–604.
- Wilkinson, R. (1996) *Unhealthy Societies: the Afflictions of Inequality*. London: Routledge.