Health, Medicine And Risk: The Need For A Sociological Approach

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INTRODUCTION

In May 1994 Britain was gripped by a panic about a deadly, quick spreading gangrene known as necrotising fasciitis. The media, particularly the tabloid press, were full of horror stories about ‘the killer bug’, linked with the streptococcus group A bacterium, with new victims being identified with each day that passed. Of the cases that had come to light by the end of the month 11 had died. While one expert, a professor of bacteriology, claimed that he had evidence the bacterium was becoming more virulent, thereby heightening public concern, another, the Director of the Public Health Laboratory Service, which monitors diseases and provides advice about the control of infection, tried to assuage this concern by stating that reported cases were within expected annual figures. The Service’s response was also echoed by the Government which refused to make the infection a notifiable illness, requiring doctors to report it, as it felt that no new information would be gained.

Eventually the tabloid press lost interest in the story and broadsheet leader writers were left to reflect on the significance of this latest health scare and why the nation’s psyche had been gripped by it. One response was that it highlighted a ‘mixed-up perception of risk’ in modern society, with people in reality experiencing far greater risk from driving a speed on a motorway, smoking and lack of exercise than from diseases such as necrotising fasciitis (Guardian 1994). Another was that public concern reflected a realisation that science and technology were as baffled and helpless in the face of this disease as ordinary people (Observer 1994).

This episode encapsulates nicely the way in which ‘risk’ is now a major issue for lay people and experts, journalists and government. The risk of ‘rogue’ micro organisms is, of course, only one of a number of threats to health. The risks to personal health from poverty and an unhealthy lifestyle are equally important, and are paralleled by public risks from industrial, agricultural and technological processes.

The Risk Industry

The term risk is not new of course. It is derived from the French word risqué and first appeared in its anglicised form in England in the early nineteenth century (Moore 1983). Originally in employed in a neutral fashion as a wager made by individuals after taking account of the probability of losses and gains (Dake 1992), it has come to refer in more recent times only to negative outcomes (Douglas 1990); to the likelihood of some adverse effect of a hazard (Short 1984).

Over the last three decades a veritable industry has developed concerned with risk and, in particular, risk assessment, drawing primarily on disciplines such as engineering, toxicology, biostatistics and actuarial science, and institutionalised in the Society for Risk Analysis and the journal Risk Analysis (Golding 1992, Hayes 1992). Perceiving risk assessment to be essentially a technical matter to be resolved by developing more: accurate scientific information, physical and life scientists and government agencies have sought to develop
'rational' means to make decisions about health risks. Emphasis has thus been placed on developing quantitative measures which can facilitate comparing the risks of different choices, calculating their costs and benefits (often in monetary terms) and communicating these to the public and to government (Nelkin 1989). The aim of such exercises is to find out what the risks really are on the assumption that all risks are discoverable and measurable and can be controlled with the requisite skill and expertise (Thompson 1989). Such optimism is in marked contrast to earlier times when attitudes towards risk were usually fatalistic, and danger and uncertainty were managed primarily through prayer, sacrifices and other rituals (Herzlich and Pierret 1987).

The current ‘rational’ approach to risk has become particularly popular with industrial managers and developers who have recognised the need to employ risk analysts to assess (and legitimize) the environmental risks of new technologies, in the face of legislation and mounting public concern about industrial hazards following a series of disasters. Accidents such as that of Seveso in Italy, Three Mile Island in the United States and Chernobyl in the Ukraine have illustrated the limitations of recent technological developments and the enormous health costs when things go wrong (Brown 1989). Faced with such public concern risk communication strategies have been developed, aimed at bridging the gap between public and expert perceptions of acceptable risks (Golding 1992). Despite such developments lay opposition to technologies such as waste incinerators and nuclear waste repositories grow ever more vocal, especially in the USA (Cvetkovich and Earle 1992) which is now faced by what has been called ‘technological gridlock’ (Irwin 1995).

Assessing risk has also become a major issue in the health field. In curative medicine much effort is now expended calculating the risk of various medical procedures and technologies and techniques have been developed to reduce the risk of iatrogenic diseases. Risk management, monitoring devices and systematic surveillance of perioperative complications have all been introduced in healthcare systems in industrialised counties in an attempt to reduce risks and control costs (Skolbekken 1995). This has been particularly the case in insurance based systems where the increase in premiums is of major concern (Brown 1979).

Assessing risk has also become a key element of public health as the account of ‘the killer bug’ panic described above illustrates. Epidemiologists calculate the ‘relative risk’ or numerical odds of a population developing an illness when exposed to a ‘risk factor’, compared with a similar population which has not suffered such exposure (Frankenberg 1994). It is on the basis of such risk assessments that governments have conducted health education campaigns to warn the public about the dangers of certain activities, presuming that ‘risky behaviour’ will be reduced as a result of the information transmitted.

According to Lupton (1993) public health discourse about risk can be divided into two kinds. The first concentrates on the environmental level and considers the risks to particular populations from nuclear waste, pollution and other hazards. The emphasis here is thus on the by-products of economic and social activity and the need for health promotion policies to maintain purity of the natural environment (Armstrong 1993). While dangers are everywhere, they are seen as external to and outside the control of individuals. An environmentally friendly, ecological response based on legislative action is therefore advocated as the main way of reducing risk and achieving a healthy environment (Beattie 1991).

The second form of discourse, by comparison, constructs risk as the consequence of the ‘lifestyle’ choices made by individuals, and emphasises the need for self control. To this end health persuasion strategies are designed and transmitted through convenient media to warn people about health risks (Beattie 1991), on the assumption that knowledge about the dangers of certain lifestyle activities will result in their avoidance (Lupton 1994).
The second public health approach is clearly illustrated in the AIDS field where gay men have been identified as having a higher risk of getting AIDS compared with heterosexual men because of gay 'life style' practices such as anal intercourse and multiple sexual partners. In this case risk has been calculated on the questionable assumption that all gay men ascribe to a single set of cultural practices and values (Glick Schiller et al 1994). These assumptions have, in turn, underpinned government health education materials about AIDS, encouraging the 'general population' to perceive HIV infection as a problem which concerns gay men rather than heterosexual men and women (Glick Schiller et al 1994).

Social theories of risk

Until relatively recently sociologists have paid little attention to risk analysis (Kronenfeld and Glick 1991). Those that have, like anthropologists, have taken as their starting point that risks are socially constructed or framed and collectively perceived. Where they have differed has been in their concern with material constraints and social interests as well as cultural factors in shaping risk perceptions and their management. Much of this work has been theoretical in orientation but there has recently been an increasing interest in undertaking empirical research in this area, especially amongst medical sociologists.

Social analyses of risk as they relate to health can be divided into those micro level studies which concentrate primarily on what C. Wright Mills (1959) famously called 'personal troubles of milieu' (concerning the individual's self and those limited areas of social life of which she or he is directly or personally aware) and more macro level work concerned with 'public issues of social structure'. The latter refers to things which transcend the individual's local environment and the range of his or her inner life and are seen by the public as threatening some cherished value. I shall briefly consider each of these approaches in turn.

Micro level studies in the health field have been concerned with the meanings of risk and the ways in which these are used to achieve practical results. Those taking this interpretive approach have tended to concentrate on two broad areas: perceptions of risk and risk behaviour and the relationship between lay and expert knowledge of risk. In the former area attention has focused on how people interpret risk rationally and instrumentally within the circumstances and constraints which impinge on their daily lives. For example Becker and Nachtigall (1994) have examined how the quest for pregnancy affects the construction of risk by couples going through infertility treatment. They show how such perceptions are shaped by biography (the women's deep rooted desire to have children) and bodily knowledge, their ongoing experience as patients in the health care system and by cultural values about fertility (conceptive technology mobilises and reinforces faith in 'persistence' as a way of achieving one's goal).

The role of contextual factors in risk perception also feature in Parsons and Atkinson's (1992, 1993) work on lay construction of genetic risk. They show how women live with the risk of Duchenne Muscular Dystrophy and how awareness of being 'at risk' is related to critical junctures in the life course such as the beginning of courtship or being in a stable relationship and wanting to have children. Perceptions of risk were also shown to influence whether the women were risk takers or risk refusers, although other biographical factors such as prior reproductive desire and the structuring of genetic information in personal stocks of knowledge were also found to be important.

The second and related area of interest for micro sociology has been the relationship between lay and expert perceptions of risk. One example of this in the health field is the work of Davison et al. (1991). In their study of lay beliefs about the risk of coronary heart disease (CHD) in South Wales they found evidence that both mirrored and diverged from expert opinion. While those interviewed agreed with the health promotion experts that they
should accept some responsibility for their health and could minimise the risks of CHD by reducing smoking and altering their diet they also drew on other ideas which differed from and to some extent conflicted with official thinking. In particular they referred to the social circumstances surrounding the occurrence of CHD and drew on more fatalistic ideas when either personalistic or social types of explanation seemed inadequate. Thus they demonstrated lay people’s willingness to assess rationally official information on the risk of CHD and apply it to their lived experience on an ongoing basis.

A similar concern with comparing lay and professional views has been demonstrated by Roberts et al (1992, 1993) in their study of the risks of childhood accidents in Glasgow, Scotland. They too found some common ground between the two groups – in this case parents on a local housing estate and professionals with some occupational responsibility for the estate - but also considerable differences. For instance while both groups saw parents as responsible for the safety of their children, the parents had considerably more knowledge of local hazards and risks, were much more likely identify specific administrative bodies as responsible for these hazards (rather than talk in terms of generalised social responsibility), and advocated a wide range of structural improvements and a greater sharing of local resources (instead of relying on education) in order to prevent accidents. The Glasgow respondents however differed from those in South Wales in that they were not fatalistic or complacent and stated that they routinely took measures to minimise the risk of accidents.

In addition to this interpretive research on group risk perceptions and behaviour there has been some more macro level work on the role of social institutions and structures in the framing of risk. As noted earlier in the example of necrotising fasciitis, the mass media play an important role in public perception of risk. They serve as filters through which both lay people and experts - both policy officials and health professionals - receive news and interpret events (Nelkin 1989). Though the selection and coverage of particular health stories they set the agenda of public discourse and affect the priorities which guide an individual’s risk behaviour.

Surprisingly, given the importance of the media in risk communication (Nelkin 1989). There have been relatively few attempts by sociologists to analyse its role in the perception of health risks. With the exception of a few studies concerned with press coverage of occupational health issues (Raymond 1985) and road safety (Stallings 1990), most of this small body of work has been concentrated on the content and reception of AIDS coverage. For example, Nelkin (1991) has discussed what shapes the content of press and popular magazine coverage of AIDS in the US and the way such coverage is received. She shows how the constraints of newwork and the need to rely on external sources to explain complex technical information about which there was some uncertainty, shaped coverage of AIDS. In addition, she suggests these media messages have been influential in making AIDS visible to lay people and turning it into a public issue which required a regulatory response, if only to protect the agencies public image. In Britain similar work on the production, content and reception of AIDS messages has been undertaken by the Glasgow University Media Group (Miller and Williams 1993, Beharrell 1993, Kitzinger 1993).

One of the external sources of information journalists turn to for information about particular risks are social movements. These campaigning groups make claims about the risk status of what they perceive to be environmental, technological or medical developments, and in the process help construct such dangers as social problems worthy of public attention (Short 1984).

Again there has been relatively little research on the role of social movements in defining health and medical risks as public issues. One exception is Elston’s (1994) study of the anti-
vivisectionist movement in the UK. She shows how the contemporary animal rights movement has deployed arguments about the risks and limitations of modern medicine from within academic social science and medicine to provide an 'external' critique of the utility of medicine.

In addition, there have been a limited number of studies of community based protest movements and their attempts to turn local environmental health hazards into a public issue. For example, Williams and Popay (1994) have documented how local residents in Camelford, North Cornwall challenged two government-backed reports by an expert group on the health effects of the poisoning of their water supply. The case was taken to show how 'popular epidemiology' the synthesis of political activism and lay knowledge - was used to challenge scientific criteria for assessing risk and experts' claims to technical knowledge. Other studies with a similar focus include Brown's (1992) ground breaking work on the identification of and response to a leukaemia cluster amongst children by residents in Woburn, Massachusetts and Phillimore and Moffatt's (1994) research on the role of local knowledge in explaining the link between industrial air pollution and the health of people living nearby.

The focus of these studies on the relationship between lay and expert knowledge in turn reflect a more broad based theoretical concern amongst social theorists about the declining trust in expert authority in late modern societies. According to Giddens (1990) we are living in a period in which the judgements of experts are constantly open to scrutiny or 'chronically contested', and are either accepted or rejected by lay people on the basis of pragmatic calculations about the risks involved. In such circumstances even the most cherished beliefs underpinning expert systems are open to revision and regularly altered, and the dominant source of authoritative interpretation is undermined (Giddens 1991).

The depth of ambivalence or alienation which people feel towards experts and risk management institutions in turn relates to a recognition that we now live in a 'risk society' (Beck 1992a 1992b); that is, one that is increasingly vulnerable to major sociotechnical dislocation and growing interdependency. Social and economic processes have created global nuclear, chemical, genetic and ecological hazards for which there is no satisfactory aftercare. These structural features reinforce the need for trust in expert authority at the very time that increasing reflexivity and a growing recognition in the indeterminate status of knowledge about risk work to undermine it. In a 'destabilised' and 'runaway' world the landmarks of a more certain era are displaced by the 'politics of anxiety' (Turner 1991).

Faced with such anxiety the role of the medical sociologist is perhaps to attempt to help further develop an alternative to the existing technical approach to risk assessment by revealing the socially constructed or framed nature of health risks and the various plural rationalities involved (Thompson 1989). The following questions may provide the focus for such work:
• What role do social, cultural and institutional processes play in the perception of health risks?
• How are the processes of defining health risks related to cultural attributes of blame and responsibility?
• To what extent do calculations about the probability of health risks influence decisions and actions of specific social groups?
• How do expert and lay frames of reference with regard to particular risks differ?
• How are public health risks constructed and legitimated by scientists, the mass media, government agencies and social movements?
• What are the constraints and opportunities for social movements to challenge expert assessment of public health risks?
• To what extent is trust in experts' assessment of risk undermined in late modern societies and with what consequences?
• How do expert discourses on health risks throw light on key elements of social order and cultural change?

By addressing these questions which cover the gamut from micro processes to macro issues of social order and social change, medical sociologists may make an important contribution to the debate about the private risks which people face and the ways in which public dangers are managed at the end of the twentieth century. The issues raised are too important to be left to the 'risk industry'.

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