1   Responses to risks: an introduction

In this book I forge a framework for exploring people's responses to risks including epidemic illnesses, nuclear threats, industrial accidents, wars and hurricanes. The risks which form the focus of the book threaten to strike large numbers of people quite suddenly. However, I show that there is continuity between how these mass threats and the more commonplace risks, such as having a car accident or heart disease, are apprehended.

The human response to such dangers has been explored in disciplines ranging from anthropology to cultural theory, from history to psychology. One common finding arises: people respond 'not me', 'not my group', 'others are to blame' when initially faced with risks. This book examines the link made between risks and 'the other'. It demonstrates that people tend to attain a sense of personal invulnerability to risk by externalising the threat. It also explores the effect of this process on those 'others' who are linked to the potential danger.

The roots of the 'not me – others' phenomenon are viewed differently in each discipline. The social scientific study of people's responses to risk tends to focus on either their narrow cognitive or their broad socio-cultural roots. My approach slots into the gap between these two poles. It explains the subjective experience of risk, connecting this experience to broader social factors. It demonstrates how social forces become sedimented in inner experiences, how the 'we' becomes contained within the 'I'. The challenge is to draw on the rich body of data from the social scientific spectrum, to produce a robust social psychological framework for understanding the human response to potential mass crises.

A thriving post-disaster literature deals with how adversity is processed by individuals. This includes work on post-traumatic stress disorder and on the impact of social support on coping. I do not address these essentially clinical issues, nor the actions taken by people once disasters have struck. I focus on the processes at work when individuals who have not been directly affected by the danger think about the

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possibility of being affected, once it has been brought to their attention. Since it is often the mass media that act as the harbinger of these threats, a core element of my framework pertains to the circulation of knowledge about risks between the expert, media and lay realms.

I begin this chapter by drawing on contemporary anthropological and sociological approaches to the human response in the face of risks. This provides the springboard for the social psychological orientation of the book, which focuses on subjective responses to risks while recognising that the individual's response is embroiled in socio-cultural forces. The objective of the book is to advance understanding of how people cope with the plethora of dangers of which they are made aware by messages which emanate from the social environment. I contend that people control the anxiety evoked by danger by forming social representations which alleviate the worry by portraying 'others', rather than the self and the in-group, as the more deserving targets of danger.

The risk society

The impact of risks on society has provided much food for sociological and anthropological thought. In contemporary Western society, risks clamour for people's attention, according to anthropologists (Douglas, 1986, 1990) and sociologists (Beck, 1986/1992; Giddens, 1991). Even though the advancement of technology has supposedly provided a sense of mastery over the natural world, it has spawned an unprecedented *sense* of risk. By having ever increasing levels of expert knowledge about risks relayed to them by the mass media, lay people are constantly surrounded by images and words which bring danger to their awareness.

The mass media play a crucial role in heightening awareness of risks. The media's livelihood depends upon their ability to attract audiences. They can rely on the compelling nature of danger to hold people's attention. In order to make imminent dangers newsworthy, levels of alarm are magnified. Risks are particularly useful for the mass media since they are able to generate news in the absence of an event (Gregory and Miller, 1998). The danger that *might* occur provides the drama, as do the controversies and breakthroughs within the scientific community. The mass media have been dubbed the 'church of change'. Since they favour new events over the more stable elements of the human condition, mass risks provide appealing material for them (Minogue, 1998). Media portrayals raise the spectre of risks by relaying localised disasters, across the globe. Without the mass media many disasters would be known to just those involved, rather than penetrating the consciousness of billions of people the world over.

The perception of being surrounded by myriad threats also relates to the nature of numerous contemporary dangers. Many are not amenable to the senses (Mol and Spaargaren, 1993). Since people cannot rely on sensory information to detect them, risks may lurk anywhere. Only the experts can recognise them. One of the shocking elements of disasters such as Chernobyl, for example, is that the effects of radiation are not obvious. This is also true of the greenhouse effect and acid rain. In a milieu in which people cannot keep in touch with the plethora of recent developments, or have sensations that forewarn them of imminent dangers, experts are called upon to decipher the likelihood and magnitude of the danger. Yet expert judgement is shrouded in doubt. The mass media compel lay people to witness the uncertainty that characterises experts' assessments of risks. The general public has been confronted with uncertainty surrounding links between BSE and CJD (bovine spongiform encephalopathy and Creutzfeldt-Jakob disease). Former uncertainties include the link between HIV and AIDS (human immunodeficiency virus and acquired immune deficiency syndrome), as well as between nuclear fall-out and leukaemia. In addition to being encouraged to witness the disagreements among experts, lay people are made aware that there are human-made risks, such as that from nuclear power, which have spin-offs which surpass the knowhow of the experts who created them. This undermines the trust that can be placed with 'experts'. Their authority is by no means assured.

The combination of a high level of awareness of risk, and a lack of trust in the experts who might be relied upon for protection, creates an era of uncertainty and unease. The 'risk society' (Beck, 1986/1992) or 'risk climate' (Giddens, 1991) that result are extremely anxiety provoking for their members. One of the ways in which contemporary societies have tried to seize control over these circumstances is by making every attempt to calculate and to regulate dangers. Risks are represented as if they are systematically caused, statistically describable and, consequently, somewhat 'predictable' (Douglas, 1990). An attempt is made to 'colonize the future' (Giddens, 1991) by assessing the risks of the various situations that might arise, and putting insurance and surveillance systems into place to prevent future damage from them. The ultimate contemporary example of this is the predictive genetic testing which will become widely available in the West in the near future. This test will examine a sample of an individual's genetic material with the aim of producing information concerning the health-related future of the individual (Davison, 1996). People's genetic blueprint maps their predisposition to certain conditions. However, it does not necessarily determine whether these conditions will occur, and does not determine their timing or severity.

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Therefore, the goal of testing is to allow individuals to plan a lifestyle in which they make all of the choices possible to diminish the chance of being affected by those conditions to which they are predisposed. The new genetic findings may have had very different repercussions. The discovery of the genetic bases of illness may have militated against the accentuation of the role of 'healthy choices' in ensuring health. Yet choice and control are stressed due to the profound effects of the ideology of individualism. From the 1970s onward, in both North America and Britain, individuals have been represented as entities who forge their own health-related destinies. Living a long life has been a do-it-yourself proposition (Crawford, 1984). Despite growth in knowledge concerning the predetermined nature of certain illnesses, modern Western societies continue to forge measures to maximise control over any changeable elements of this predisposition.

This is a very different orientation to danger from that which existed in pre-modern times. Although members of societies have always tried to take some form of control over the perils they faced (e.g. by magic), in pre-modern times fate and destiny were relied upon to shape people's futures. Events were experienced not in terms of causal, predictable relations but in terms of cosmic order. The very meaning of the contemporary word for danger – risk – refers to the probability of a (generally) negative outcome, accompanied by the magnitude of the damage which it will do. Danger, on the other hand, merely connotes peril.

By enveloping risks in the language of probability, one swathes the notion of danger in an aura of science (Douglas, 1992). Risk is merely danger dressed in modern clothes. Risk simply means 'danger from future damage',[1] yet the term 'risk' implies precision of calculation, which suggests objectivity and control. The term 'danger', I would argue, also evokes a far more emotive quality. It suggests that a menacing, threatening event is on the horizon. The concept of risk not only conceals the emotional facet of danger, but also obscures the value-laden nature of choices made in societies concerning risks. Risk-reduction policies claim to take their cue from the science of probability (e.g. see Backett et al., 1984).[2] Yet they reveal a more moralistic endeavour, one that routes dangers back to those responsible for them. Douglas points out that well-advertised risks tend to be those connected to moral principles and their legitimation. The greater accentuation of the danger posed by AIDS, rather than heart disease, since the early 1980s in the West, with the greater connection of AIDS to the morally laden domain, speaks to this point. The reported instances of the two types of illness do not justify this emphasis.

While seeking control over danger, via calculation and regulation, is an aspiration of the experts, Beck's (1996) very definition of the 'risk society' is one in which control is absent: 'The concept describes a phase of development of modern society in which the social, political, ecological and individual risks created by the momentum of innovation increasingly elude the control and protective institutions of industrial society' (Beck, 1996: 27). The notion of risk, by definition, presupposes that a decision can be made regarding how it is possible to avoid a hazard or danger. The incalculable threats of pre-industrial society are turned into calculable risks in industrial society, in line with the modern project of promoting rational control in all spheres of life. However, for Beck, the 'risk society' era follows the industrial phase of society and is different from this preceding form in that the risks – nuclear, chemical, ecological and those resulting from genetic engineering – are of a different order from industrial risks. They cannot be compensated for or insured against because they are not limited in time and space. This quality makes it difficult to hold entities accountable for them. The risks are also apprehended differently in that the public reflects upon them to a far greater degree than in previous times. This reflection produces an unprecedented public scepticism concerning the trust that can be placed in experts.

Despite these allusions to the perspective of the public and its mistrust of experts, Wynne (1996), a sociologist, argues that the risk society thesis has focused, almost exclusively, on expert knowledge. It contains a top-down dynamic. Lay people witness and take their cue from experts. According to Wynne, the notion of a public that constantly responds to and reflects upon expert agendas must be challenged. He contends that sociological work on the risk society has contained a gap in terms of specifying the dynamics of the lay dimension. Even Giddens' (1991) work, which deals with the intimate and interpersonal dimensions of lay knowledge, fails to elucidate the culturally rooted, collective facet. Contrary to these trends, Wynne highlights the way in which lay people forged the agenda of early nuclear issues in Britain. Lay people noticed excessive rates of childhood leukaemia in the vicinity of the Sellafield (formerly Windscale) nuclear reprocessing plant in the 1970s. Experts denied this until such time as the mass media took up the ideas of the lay people. This mass exposure of the problem prompted an official inquiry by the experts; this confirmed the excess of leukaemia which could not be attributed to other causes. The emphasis upon lay people setting the agenda is particularly valuable since it illustrates that lay people generate issues and act on society rather than constantly responding to expert agendas. Nevertheless, to refer to the process of

the circulation of ideas in a society as being either top-down or bottom-up reflects an oversimplification. Even Wynne's characterisation of lay people identifying excessive leukaemia cases at Sellafield implicitly includes medical expertise, since it is medics who must have taken part in the identification of the individual cases of leukaemia. In order to capture the complexity of these dynamics, there is a need for a theory of the fluid interaction between lay and expert responses to risks. Some of the other issues raised by Wynne highlight further important aspects that an appropriate theory of the lay response to risk must encapsulate.

Wynne (1995) emphasises the need to reconstrue the 'public' as a plural entity: there are many 'publics' who apprehend the risks and they do so in line with issues of identity. In order to demonstrate how identity enters into the apprehension of risks, Wynne refers to the case of radiation workers at Sellafield who chose to maintain high levels of ignorance in relation to radiation risks because they did not want to threaten existing social arrangements in which certain experts were assigned the role of understanding the science of radiation and of thereby protecting the workers. A division of labour, as well as trust and dependency, were key features of the workers' responses to radiation risks. Wynne uses this case to support the notion that identity processes lie at the heart of people's responses to potential risks. While his work is useful in that it demonstrates that the broad brushstroke 'risk society' approach needs to consider the dynamic interaction of those with different roles in institutions, his approach is not infused by a theoretically driven understanding of the processes at work in identity construction. A focus on role allocation and the emotional dynamics of trust and dependency does not fully encompass or explain how people construct their orientation towards risks. In addition, the focus on the workers as a group irons out variability in their responses which may relate to their individual biographies, and to their group identities outside of the workplace. Insight into such factors provides knowledge of the workings of identity formation, as the theoretical position which I advocate will indicate.

Finally, another valuable debate which Wynne (1982) sets up is that between the advancement of rational rather than more symbolic and emotive responses to risks. He claims that within policy-making and within sociological work, emotional and symbolic facets are neglected. In relation to nuclear power, for example, its proponents have demanded that public debates evaluate the 'hard facts' alone, without reference to other realms. Yet for lay people, nuclear power is a highly emotive issue, one upon which the whole future of civilisation may rest. It carries a vast array of symbols, including that of scientific and

technological hubris and of environmental destruction. Nuclear fall-out has also been associated with the destruction of people's health in the areas that surround nuclear plants. Again, while Wynne's work suggests exemplary avenues for exploration, coherent theory which allows for the development of these valuable angles, has not yet been developed within sociology.

A framework for understanding the individual's response to risks

Utilising the social psychological theory of social representations, in conjunction with certain psycho-dynamic ideas, the hiatus left by the various sociological positions concerning the nature of lay knowledge can be addressed. In the framework which I forge, the concern is with the culturally rooted, collective nature of the public knowledge of risks, as well as with the emotive and symbolic dimensions. My primary contention is that the personal shock evoked by mass risks sends people along a defensive pathway of representation. The 'risk society' does not necessarily leave people with a heightened state of anxiety, as Beck's and Giddens' work may suggest. Nor do humans rely exclusively upon surveillance and insurance systems to control this anxiety, to 'colonize the future'. Humans possess defensive mechanisms which protect them from unwelcome emotion. These defences are reflected in their representations of risks, which serve to control the anxiety evoked by the danger. The social psychological framework which I forge has the potential to strengthen the existing sociological ideas, allowing for reconciliation of the split between the more socially based dynamics and the more intimate, interpersonal levels of the response to risk.

Work on the subjective experience of risk in the context of the 'risk society' is surprisingly limited. Risk-related perceptions have been studied extensively in cognitive psychology without reference to the social environment. The psychological theory of 'optimistic bias' points to conclusive findings concerning how people interpret knowledge about risks. Most people imagine that they are less likely than their peers to be affected by a large array of risks. This area of research centres upon how people evaluate their own risk in comparison to how at risk they imagine others to be. People are found to be unrealistically optimistic in relation to their own susceptibility to dangers. Another area of cognitive psychology, that of judgement- and decision-making, evaluates the odds which people offer, in relation to their chances of becoming affected by a particular risk. The probabilities offered by lay people are often compared to scientific estimates, and the source of the errors made by

lay people are explored. Both of these models focus on information processing problems which lead to the 'faults' observed. By positing purely cognitive origins to individuals' reactions to danger, they negate the role played by societal forces and are seldom drawn upon in social scientific debates about risk. While it is unsatisfactory to restrict a theory of the responses to risks to the cognitive realm, findings from this realm corroborate the 'not me – others' process which many social scientists identify in relation to imminent danger. This need not result from people being error-prone information processors. I explore the meanings which people make of risks. This inquiry provides evidence that both socio-cultural and emotional factors enter into the process of evaluating and experiencing risks. Rather than focusing on the disparity between lay and expert risk assessment, I examine the ways in which people prioritise protection of the self and in-group from threat over rational, objective assessments of danger.

The 'individual': on subjectivity

My concern is with what happens in the internal world of the individual who is faced with the threat of being affected by a disaster. An accusation of methodological individualism can be levelled at an approach which focuses on individual responses to mass risks. However, the point is that one can talk of individuals without individualising, without locating the origin of experience within the individual psyche. Processes that lie beyond the individual, and often beyond human awareness, play a key role in forging the individual's response to risks. A refrain throughout this book will be that social forces are embodied within the self: the 'we' is sedimented in the 'I'. The core theories on which the book draws – social representations theory and contemporary psychoanalysis – are integrated to explain this process.

My overall orientation is in keeping with the direction in which Henriques *et al.* (1984/1998) tried to propel psychology in the 1980s. They called for a focus on subjective experience, yet construed subjectivity as an entity shaped by social forces. It has not been taken up by many psychologists (see Billig, 1997 and Frosh, 1989a for notable exceptions), since the discursive model, which has catapulted to the forefront of social psychology, is not centrally concerned with subjective experience. Postmodern variants of discursive theory go as far as to eschew the notion of subjectivity completely. Michael (1994: 397) claims that 'there is no self'. According to this line of thought, those people who live in the West, under the influence of factors such as the electronic media, are postmodern beings. This type of being takes up

many different subject positions. Rather than being a coherent entity, the 'self' is 'nomadic'. It moves between different perspectives and identities. Henriques *et al.* (1998) question this perspective succinctly and insightfully:

in this view the subject is composed of, or exists as, a set of multiple and contradictory positionings or subjectivities. But how are such fragments held together? Are we to assume . . . that the individual subject is simply the sum total of all positions in discourses since birth? If this is the case, what accounts for the continuity of the subject, and the subjective experience of identity? What accounts for the predictability of people's actions, as they repeatedly position themselves within particular discourses? Can people's wishes and desires be encompassed in an account of discursive relations? (Henriques *et al.*, 1998: 204).

These authors advocate a more unified subjectivity than that put forward in the postmodern stance. I adhere to the notion of a self that has a fairly stable sense of its position, and of internal, relatively consistent desires and wishes. The framework developed in this book is conceived as a late modern rather than as a postmodern enterprise. Both of the key theories upon which my approach draws are more modern than they are postmodern.

Why social representations theory?

The social representations framework, established by the social psychologist Serge Moscovici, provides a composite vision of the development of common-sense thinking. While sociologists such as Wynne suggest useful alleys regarding lay apprehension of risks, a unified theoretical position on lay thought emerges from the more psychologically rooted perspective. Social representations theory highlights and seeks to understand people's spontaneous philosophies about new societal events. The concern is with how different groups make meaning of events such as a newly identified epidemic or the threat of nuclear war. There is particular emphasis upon how lay theories come about and operate. The emphasis is wholly different from one which seeks to identify the faults made by lay thinkers in understanding risky situations, with the hope of rectifying mistaken thinking. This has been a dominant concern not only in cognitive psychology but also in the Public Understanding of Science (PUS) field. The PUS field's research agenda is centrally concerned with the measurement, explanation and finding of remedies for 'misunderstandings' of science and technology (Wynne, 1995). The approach assumes that the motivations for 'understanding' science are the same across experts and lay people. Primarily, the

acquisition of 'objective knowledge', pertaining to the 'true facts', is imagined to be a common goal.

However, social representations theory proposes that the motivations which underpin 'risk perception' are not based upon a need for accurate information. Rather, people are motivated to represent the risks which they face in a way that protects them, and the groups with which they identify, from threat. They make meaning of the threat in line with self-protective motivations rather than with rational dictums. Social representations theory also emphasises communication, rather than internal information processing, when explaining how people set up their representations. It stresses the role of group affinities, rather than lone information processing, in shaping ideas. In the dialogue that goes on in pubs, on buses and around dinner tables, people shape their ideas about newly encountered threats in a way which fits with the ideas held by the groups with which they affiliate.[3]

Social representations theory is a social constructionist theory concerned with the specific forces at work in shaping understandings of new phenomena. It posits that the seeds of the representations of new phenomena which people create tend to lie in scientific interpretations, which get relayed from this reified, expert universe to the lay domain by the mass media. Therefore, the mass media play a critical role in feeding the dialogues between lay people, which establish their social representations. Initially experts, journalists and lay thinkers alike use old, familiar ideas in order to understand unfamiliar threats. They also draw upon the images and metaphors which circulate in the culture. By stamping new threats with the ideas associated with past dangers, the threat posed by the new, mysterious hazard is muffled. Assimilation in line with existing images and metaphors has a similar effect. The new event is absorbed in a way that reduces the fear which surrounds it, thereby protecting the sense of safety of the representor.

Unlike most discourse analysis, which is the more prevalent version of social constructionism in social psychology, social representations theory delves into the symbolisation inherent in a variety of representational genres. It does not elevate textual discourse over images and rituals, in order to explain how meaning is given to new events. The theory is also distinctive in comparison with discourse analysis in that it places great emphasis upon the specific group-based processes which are at work when individuals think about risks. Primarily, the group identifications of the individual shape which ideas are taken up from history and from the prevailing culture. When new risks are encountered, individuals draw on ideas and ways of thinking that originate within the groups with which they identify (Halbwachs, 1950; Mos-