

1. DEVELOPMENTS IN PSYCHOLOGICAL AND SOCIOLOGICAL THEORIES OF RISK

Risk research has been influenced by a wide range of theoretical perspectives and methodological approaches. This paper seeks to chart out the contributions of some of that work, paying particular attention to psychology and sociology, and to identify current areas of development, drawing on a wide range of sources.¹ It shows that recent developments reflect a general move to acknowledge the significance of social and cultural factors more seriously in understanding risk; interestingly, there is a shift towards constructionism and, to some extent, to more social approaches in some work from psychological and social psychological traditions. Constructionism is of course important in sociology, but here there is also a tendency towards more individualist

Broadly rational actor approaches understood in this way may be refined into what Weyman and Kelly (1999 14) refer to as 'value-expectancy models', where behaviour is seen to result from assessment of the seriousness and likelihood of outcomes in a sort of individual cost-benefit model (Fishbein and Ajzen 1975). Their meta-review of the literature indicates that associations between perceptions of risk and behaviour are often inconsistent and in most cases weak (1999, 15). This finding is echoed in a great deal of experimental and observational research. Loomes, writing from an economic psychology perspective, points out in a detailed literature review of work on how people value different 'goods' and 'bads' or hazards and opportunities that pure rational actor assumptions are difficult to maintain: people are often sensitive to

There are parallels to the notion of 'facework-based trust' (Cook, ch 1 in Kramer and

Loomes relates these results about the importance of situational factors in evaluations to the finding that the value chosen as the starting point on a scale and the range of values one sees as available (the 'modulus' employed) has a major impact in influencing the way one values something. The point is that people have to carry out some such process in arriving at a valuation of an experience. The cognitive/affective model suggests that they are typically influenced by particular impressions of the experience (perhaps the brief end-period of something spread over time or the context in which a particular object is set) in doing this. However, there is no available basis for pure objective assessment, independent from context and framing. This is just how people are. Redesign of an experiment may lead to different valuations by varying context or the salient features, but that does not alter the basic point.

associated with different social groups – were seen to influence risk perceptions and responses (see for example Dake 1992; Rippl, 1999).

More recently, attempts have been made to combine the various approaches. Accounts which rest on both the characteristics of risks and the influence of social factors have been linked in the *Social Amplification of Risk Framework*. This incorporates sources, channels and flows of information and the role of culture and of social institutions in reinforcing or attenuating particular risk ‘signals’ to provide accounts of why particular hazards are identified as risks and how communication about those hazards impacts or fails to do so on the larger society (Pidgeon et al. 2003 14).

This model essentially offers a framework within which different psychological and sociological approaches can be located. It has been criticised in three main ways. It does not offer any additional contribution to theorising, particularly in terms of weighting the contribution of different theories (Rayner 1988). It fails to recognise the complexity, interaction and, in some cases, conflicts between different theories – for example, the extent to which a cultural account of how risk communication is amplified across some groups but not others, and an individualistic account of the role of experience and cognitive heuristics generates risk perceptions across all individuals (Horlick-Jones, Sime and Pidgeon, 2003 283-5). Thirdly, it finds difficulty in accommodating accounts of how the social conventions and assumptions summed up, for example, in Bourdieu’s notion of ‘habitus’, facilitate or undermine particular risk perceptions (Murdock et al 2003). Nonetheless it is an ambitious attempt to produce an inclusive model even if it is one which has failed to attract much developmental work elsewhere.

2.3. Directions in Psychological Research

To summarise, psychological research includes the rather different directions of the more cognitive and experimental, and more social psychological and psychometric approaches. Both have produced effective and fruitful traditions of work on risk. While there are a number of important streams of work, recent developments in findings and analysis have led researchers to pay less attention to the importance of rationality and cognition and more to affective and (to some extent) cultural factors. We move onto consider the recent development of sociological approaches to risk.

3. SOCIOLOGICAL APPROACHES

Although some sociological work is based on rational actor approaches (Coleman 1990, Gambetta, 1988), most sociologists find this approach unsatisfactory in dealing with situations in which others are involved (Bloor 1995). The distinctive contribution from this perspective has emphasized the role of shared ideas and

outcome may be that efforts to manage risks actually increase hazards. Risk management is not best thought of as a purely technical issue, but also involves understanding the social context in which people respond to risk.

Freudenberg and Pastor's review of the relevance of sociology to risk research and vice versa, points to the value of sociology in providing an informed critique of the simple dichotomy between knowledgeable experts and 'a public that irrationally fears science and technology' (1992 392). They review the literature to show that studies of community politics, of the operation of the media and other communication systems and of the development and validation of scientific expertise indicate that the way in which issues are understood and advanced is mediated by social factors among both groups (1992 397-8). We review three main variants, drawing predominantly on socio-cultural work, risk society approaches and governmentality theories.

3.1. The Socio-cultural Perspective

The socio-cultural perspective was initially informed by the seminal social anthropology of Douglas (1985), and Douglas and Wildavsky (1982). Douglas' key concern was to understand the basic principles which underlie the way in which people see themselves and others and how this influences their behaviour towards each other. She sought to identify fundamental rules which apply across all societies. A central distinction lies between self and others and so that a fundamental of culture is the social construction of Otherness. The 'Other' (whichever individuals or groups are defined as different, as outside the identity of one's own group) is seen as a source of concern and fear, and sometimes of fascination. Her initial work on pollution and on the understandings and rituals surrounding it stressed the significance of boundaries at the level of the individual body and then by extension in the body politic. Dirt is famously matter 'in the wrong place' (1969, 2). The transgression of social boundaries is similarly a source of anxiety, and demands moral rules to define the ordering of the social universe: 'in all places at all times, the universe is moralised and politicised. Disasters that befoul the air and soil and poison the water are generally turned to political account: someone already unpopular is going to be blamed for it' (1992, 5 ap. Lupton, 1999, 6).

Douglas then traces the shift from a moralism of pollution based essentially on a religious framework of sin to a secular one in which threats are understood primarily as risks. Blame can attach to the victim (the person 'at risk') or to the attributed cause of risk ('blaming the outsider' – Douglas 1985, 59). She later developed this in what is termed the 'grid-group' model of social organisation. This essentially distinguishes social processes to do with the cohesion of social groups, from the local community up to the ethnic group or nation, and with how they differentiate themselves from those seen as outsiders, from all other social processes concerned with hierarchy, authority and other constraints on behaviour. She applied this model in relation to responses to risks from HIV/AIDS for example (Douglas, 1992, 111).

Although the grid-group model has not been taken up by many sociologists, socio-cultural perspectives drawing broadly on Douglas' work and on the self/other distinction have been enormously influential. The self/other distinction resonates with psychoanalytic approaches (Kristeva, 1982), and its social applications links to

accounts of ethnic cleansing (Tulloch, 2005), of the ideology of Nazism (Bauman, 1991) of responses to migration, to accounts of the Oriental, to crime (Kemshall, 1997) and to a whole range of issues where risk can be associated with groups defined as other. Current concerns to demarcate refugees and asylum seekers from the rest of the population (Burkhardt 2004) and about Muslim migrants in European countries (McLaren and Johnson 2004) can be readily located within this framework.

These approaches have evolved to include a wide range of cultural bases for risk perceptions, all sharing the view that cultural assumptions across social groups are powerful bases for ideas about risk and how to deal with it. They offer an important alternative to the individualistic and rational actor accounts of risk responses developed primarily in economics, and to the more cognitively based approaches of much of psychology. The main variants may be loosely grouped under the headings of risk society (inspired by the work of Beck 1992 and Giddens 1994) and.7(of)r-5.7(er1r7ony u

increasingly centre on avoiding the 'bads' (reducing risks) rather than gaining more of the 'goods' (wealth and the fruits of economic growth). Most of these problems can cross national boundaries and affect social groups indiscriminately: 'smog is democratic' (Beck 1992, 36). The outcome is a world risk society which is increasingly beyond the level of the risk management institutions of the nation state.

These shifts also impact on individual consciousness, but Beck's work is primarily concerned with the impact of shifts in social institutions – for example, marriage and cohabitation (with Beck-Gernsheim, 1995), and, in more recent and ambitious work, globalisation at the most general level and the effect of changes on employment, the welfare state and also political institutions (1999a, 1999b). He is currently engaged with other scholars on a major empirical project which extends the approach holistically, to consider shifts at the level of the nation-state, the sexual division of labour, the nuclear family, the differentiation of social sub-systems in politics, the economy, culture and science and the relationship between expert and lay knowledge (Beck, Bonss and Lau, 2003, 5). Research within the risk society framework on intimacy and personal relationships also continues (for example, Beck-Gernsheim 2002).

Risk society themes have been taken up in the UK by Giddens, who tends to pay greater attention to the impact of cultural changes at the individual level. The key shift among the citizens of risk society is towards what he terms 'reflexivity': individuals are conscious of their social context and their own role as actors within it (1994 42). Managing the risks of civilisation becomes both a pressing issue and one that is brought home to individuals. At the same time however, confidence in experts and in accredited authorities tends to decline as people are more aware of the shortcomings of official decision-makers, the disagreements among scientists and experts and of the range of alternative approaches to problems. The weakening of an established traditional order in the life-course provided by work, marriage, family and community leads to greater individualisati

the range of ways in which they might choose to live: 'this newly-gained reflexivity is deeply connected to meaning making and ..critical action depends on a continued relation to relatively non-contingent, supra-individual cultural forms' (1996 138).

The second issue, concerning the periodisation of social change, follows from this. Rose (1996 321) points out that Beck's claim that 'the prevalence of a language of risk is a consequence of changes in the contemporary existential condition of humans

to the accounts of the different mental models of different groups developed by psychologists.

A further development has been the detailed examination of the responses of individuals to the kind of general social changes that are seen as constituting the transition to risk society and the charting out of the range of responses to greater uncertainty in the life course. The most influential study from this perspective is by Tulloch and Lupton (2003). This rests on detailed interviews with a small number of individuals in comparable family and life-stage contexts in the UK and Australia. This work is currently at an early stage but does indicate that a variety of responses to the experience of risk society are possible, ranging from an enthusiastic recognition of greater opportunity to blind faith that uncertainties will be resolved, and that risk society theories need to be sensitive to the range of citizen responses. A related stream of work explores responses to specific risks and demonstrates the way in which cultural factors influence how risks in areas like health behaviour (Denscombe, 2001; Hobson-West, 2003) or family life (Lewis, 2001; Hackstaff, 1999) are understood.

3.3. The Governmentality Perspective

Governmentality approaches originate in a different set of insights, drawing initially on the path-breaking work of Foucault (1991). Here the central point is that socio-cultural assumptions as well as the direct exertion of institutional authority or physical compulsion can function as part of the apparatus by which power is exerted within a society (Rose, 1990 ix). Structures of culturally based power can be complex and intersecting, involving axes of faith, ge

insurance in the 20th century and the development of the welfare state (Ewald 1986, O'Malley 2000). A number of scholars have traced through these processes in the

institutional structures or individual understandings of the context of their lives, and accounts of how the exercise of power generates processes which shape social values and behaviour in different contexts.

The respective strengths of the sociological perspectives are that the approach provides an account of the universality of risk and the widespread contemporary disjunction between expert and lay understanding; the particular recent salience of risk and of pervasive disquiet about trust; and the shift in official approaches towards greater emphasis on social regulation through expectations and assumptions about individual behaviour. The weaknesses are to do with the reliance on general social categories in socio-cultural approaches and on relatively undifferentiated individualised accounts across much of the risk society approach, which fails to do justice to recent work indicating the specificity, complexity and variety of responses to risk in different micro-social contexts; and, in governmentality, on a functionalism which assumes that the demonstration of needs at the macro level explains the development of particular understandings among social agents.

Recent developments have led sociological work towards a more sophisticated understanding of the way in which cultural context influences the apprehension of and response to risk, which takes into account social changes, but also analyses the way in which these changes shape both the understanding of risk and uncertainty and social actors' awareness of themselves and their possibilities for acting in relation to risk. In addition some work is paying greater attention to distinguishing the way social and demographic factors, life-stage or membership of particular groups influences responses in this field.

4. COMPARING AND COMBINING APPROACHES TO RISK

Approaches to risk may be categorised in a number of ways. Two dimensions, concerning ontology and particularity, are probably of most use in bringing out key features in current psychological and sociological work. At an ontological level, different theories carrsiuut kt0 -1.1(an 4.f4954 -1)3()9(and)--0.00.000(a)8.2(CHE1.1426 5.3(ip of par)-7.5(ti

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4.1 Realism and Constructionism

Risk theories may be ranged along a continuum from realist through weakly to strongly constructivist. Most technical and scientific theories of risk are categorised as realist in their equation of risks with objectively existing hazards, an approach which implies that it is possible to distinguish between real and imaginary sources of risk. This approach, in principle, privileges expert accounts, although it is always open to the possibility that particular expertise may itself be subject to further expert correction. Cognitive/learning approaches typically fall into this category. They are

based on 306 assumptions about risks (the real hazard) (Zinn) (7.07) (58.4) (37.18(-3)) (51.7) (46.0) (51.0)

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their emphasis on the individual level in apprehension of and response to risk. This is particularly clear in Giddens's account of citizens, faced with conflicting expert standpoints, actively choosing, as individuals, where to place their trust.

testing of some of the arguments about the importance of emotions developed by sociologists.

Thirdly, sociology seeks to provide general answers to questions about whether the ways in which people think about authority and expertise in current society perennially call into question claims based on technical knowledge or accreditation by particular established bodies. This has implications at the practical level for the conduct of public consultations and the role of different forms of knowledge within them, but also raises more basic problems for assumptions about representative democracy. The work based on the risk society perspective has tended to consist of theory-based assertion, detailed and essentially descriptive studies of how people behave in particular contexts or more general qualitative and exploratory work in which large numbers of variables are involved but not systematically examined. Use of experimental and psychometric techniques could support further development in this field, which would offer possibilities for linking across disciplines.

Psychological and sociological approaches to risk have developed rapidly in recent years. One current direction involves greater interest by psychologists in work that places greater emphasis on social and cultural factors and which weakens the realist assumptions about the objects of risk. At the same time, major directions in psychology place more stress on the realism of risk and develop more individualist accounts of risk recognitions and risk responses. Opportunities for closer linkages between the two disciplines are emerging, which may enable development of psychological ideas in the context of the broader and more holistic conceptualisations of sociology, and more rigorous testing of the theories of sociologists, drawing on the methods and conceptual distinctions developed by psychologists.

Fig. 1: Psychological and Sociological Approaches to Risk

<p style="text-align: right;">Constructionist</p> <p style="text-align: center;">/</p> <p>Individual</p>	<p style="text-align: right;">Governmentality</p> <p style="text-align: right;">Socio-cultural mainstream</p> <p style="text-align: center;">Risk society:</p> <p>Giddens: individualist Beck: institutionalist</p> <p>Psychometric/ cultural; SARF</p> <p style="text-align: right;">Social</p>
<p>Subjective</p> <p style="text-align: center;">Affect-influenced Cognitive/ learning Psychometric and modified Cognitive/ learning</p> <p style="text-align: center;">Cognitive/ learning</p> <p style="text-align: center;">Rational actor</p> <p>Scientific- technical</p>	<p style="text-align: right;">Collective</p> <p>Realist</p>

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References

- Alaszewski, A. (2003) 'Risk, trust and health', *Health, Risk and Society*, 5, 3, 235-9.
- Alexander, J (1996) 'Critical reflections on 'reflexive modernisation'', *Theory, Culture and Society*, 14, 4, 133-8.
- Alhakami A and Slovic, P (1994) 'A psychological study of the inverse relationship between perceived risk and perceived benefit'. *Risk Analysis*, 14 6, 1085-96.
- Altmann, E. (2000) 'Memory in chains; modeling primacy and recency effects in memory for order', Proceedings of the 22nd Annual Meeting of the Cognitive Science Society, Erlbaum, Mahwah, N.J., 31-6.
- Baker, T. and Simon, J. (2002) *Embracing Risk*, Chicago, Ill.: Chicago University Press.
- Bateman, I., Carson, R., Day, B., Hanemann, M., Hanley, N., Hett, T., Jones-Lee, M., Bauman, Z. (1991) *Modernity and Ambivalence*, Cambridge: Polity Press.
- Beck, U. (1999a) *Globalisation*, Cambridge: Polity Press.
- Beck, U. (1999b) *World Risk Society*, Cambridge: Polity Press.
- Beck, U. with Beck-Gernsheim, E (1995) *The Normal Chaos of Love*, Cambridge: Polity Press.
- Beck, U. (1992) *Risk Society: towards a New Modernity*. London: Sage.
- Beck, U., Bonss, W and Lau, C (2003) 'The theory of reflexive modernisation' *Theory and Society* 20 2, 1-33.
- Beck, U., Giddens, A, and Lash, S (1994) *Reflexive Modernization*. Cambridge: Polity Press .
- Beck-Gernsheim, E (2002) *Reinventing the Family*, Oxford, Blackwell.
- Bloor, M. (1995) *The Sociology of HIV Transmission*. London: Sage.
- Bostrom, A, Atman, C, Fischhoff, B and Granger Morgan, M. (1994b) 'Designing risk communications completing and correcting mental models of hazardous process, parts

- McLaren L and Johnson M (2004) 'Understanding the rising tide of anti-immigrant sentiment' in *British Social Attitudes*, no 21, London: National Centre for Social Research/Sage.
- Metlay, D. (1999). 'Institutional trust and confidence: A journey into a conceptual quagmire' in G. T. Cvetkovich, & R. E. Löfstedt (Eds.), *Social Trust and the Management of Risk*, London: Earthscan.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 102, 246-268.
- Morgan G., Fischhoff, B., Bostrom, A et al (2001) *Risk communication – a mental model approach*, Cambridge: Cambridge University Press.
- Murdock, G., Petts, J. and Horlick-Jones, T. (2003) 'After amplification: rethinking the role of the media in risk communication' in N. Pidgeon et al., op cit.
- Mythen, G. (2005) 'Employment, individualisation and insecurity' *Sociological Review*, 33, 1, 129-49.
- O'Malley, P. (2000) 'Uncertain subjects: risks, liberalism and *contract*' *Economy and Society* 29, 4, 460-484.
- Page, M. and Norris, D. (1998) 'The primacy model: A new model of immediate serial recall', *Psychological Review*, 105, 4, 761-81.
- Perrow, C (1984)

