Book Reviews

Risk and Society

David Denney
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In Risk and Society David Denney provides an introductory overview of current debates relating to risk in social science. Alongside the works of writers such as John Adams (1995), Deborah Lupton (1999), Roy Boyne (2003) and the recent edited collections of Gabe Mythen and Sandra Walklate (2006) and Peter Taylor-Gooby and Jens Zinn (2006), it serves to establish the study of risk as a distinct topic of inquiry for undergraduate courses in sociology, international relations and organisational studies. The book is divided into three parts. The first part outlines some contemporary definitions of risk and core tenets of the theoretical frameworks of analysis that characterise the field. The second part highlights the ways in which risk features as a common currency of analysis and debate across a wide range of everyday concerns. Particular attention is focussed on risk research relating to health, professional practice, mass media, social welfare and crime. In the third part of the book, attention is directed towards some of the ‘global’ and ‘international’ dimensions of risk analysis relating to the study of terrorism, the rise of a new regulatory state, environmental problems, global governance and international relations.

The strengths of this work lies in the range of topics that are raised for discussion. Most textbooks are pitched towards a distinct set of disciplinary concerns with specific pedagogical aims in mind; however Denney’s discussion ranges across almost every area of risk analysis in social science. Above all else, he is concerned to underline the ways in which risk features as a core unit of analysis across multiple areas of interest. The book is written with the aim of presenting risk as the most pressing matter for contemporary social research. On this account, risk is the key organising principle of society, the overwhelming preoccupation of core institutional formations, a major co-ordinate of personal identity and the mode of discourse that, above all others, enables us to grasp the magnitude of the world problems we face.

The tone of discussion is largely descriptive. Each chapter reviews key literatures in the field so as to highlight principle research findings and introduce student readers to main frameworks of analytical controversy. Denney does not venture to present us with a definitive point of view on risk and he does not declare any preference for a particular approach to theorising the social and political meaning of this phenomenon. He compares and contrasts opposing accounts of risk, but he does not take up a distinctive position on the debates covered in the book. Time and again he lists the ongoing sociological and political questions that preoccupy researchers and underlines the extent to which there is no consensus as to what
constitutes risk and how it should be studied. Indeed, aside from alerting students to
the range of interests associated with risk, his overriding interest appears to lie in
emphasising the need for further empirical research, analytical rigour and
conceptual clarification.

An alternative approach may have inquired into the extent to which the conflict of
interpretations surrounding the social meaning and lived experience of risk serve to
undermine the empirical and analytical objectives of academic research. In light of
the limitations of current risk research and the incommensurable ways in which the
concept is taken up as key term of analysis, Denney might have ventured to debate
whether we have reached the point where reference to risk serves to obscure more
than it clarifies in our understanding of the social world. Perhaps we should now be
working to devise more analytically precise and conceptually coherent frameworks
that move beyond the parameters of ‘risk and society’? Alternatively, he might have
taken the problems he identifies as an opportunity for furthering our understanding
of risk. Where risk implies the possibility of calculated control, technical planning
and assured prognosis, it also serves to alert us to matters of hazardous
indeterminacy. Indeed, elsewhere I have argued that it may well be the case that
the uncertainties of risk are always liable to give rise to analytical disagreements
when it comes to determining the true dimensions of hazards and the social reality of
contemporary forms of ‘risk consciousness’ (Wilkinson, 2001). It may be the case
that there can be no settled agreement on what constitutes risk and the more we work
to organise our work around the study of this phenomenon, the more we are fatefully
bound to court analytical controversy and conceptual frustration.

As an introductory review of current debates relating to the study of
contemporary in social science, Denney’s book is a valuable contribution to the
burgeoning textbook literature on the field. The value of this work lies in the
attempt to provide a thorough overview of the gamut of debates that connect the
study of society to the analysis of risk. However, I suspect that those with an
established interest in these areas of research will not find much to here to further an
advanced understanding of risk and society.

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In the light of disasters like Hurricane Katrina and the south Asian tsunami, *Hazards, Vulnerability and Environmental Justice* is a timely volume addressing the social impacts of and response to (natural and unnatural) hazards and disasters. The collection of 26 papers, all authored or co-authored by Susan Cutter over a period of thirty years, is organized into five sections: *Old, New and Familiar Hazards; Vulnerability to Threats; Societal Responses to Threats; Environmental Justice and From Theory to Practice*. Whilst the empirical content and style of writing does vary from one chapter to the next, largely reflecting the format, this book succeeds in two crucial respects.

First, breadth: in bringing together the work of one of the most well known and experienced geographers working in the field, this collection is certainly comprehensive and a valuable addition to the available literature for students and practitioners alike. The content ranges from risk assessment, communication and planning to detailed analysis of societal response and perception – offering a distinctly geographical take. The volume is packed with facts and figures and contains a rich ensemble of case studies (albeit primarily taken from the USA) describing a range of empirical challenges and recent methodological developments. A major achievement of the book is the diversity of ideas presented for progressing research and for more tightly linking these agendas (with an emphasis on the role for Geography) to policy and practice. All sections have their merits and include papers that address significant substantive topics and/or present real innovation in the field. However, two of the sections stand out as holding a very clear and strong intellectual identity. The collection of papers dealing with *Vulnerability to Threats* is particularly useful in its coverage not only of the causes and spatial outcomes of vulnerability but also of the range of tools and techniques associated with vulnerability science. Cutter’s development of a hazards-of-place conceptual model of vulnerability – which integrates biophysical and social vulnerability – has been significant in offering a geographical framework for the analysis of hazard and risk. Likewise, the section on *Environmental Justice* includes excellent discussion of academic work and methodological debates in the field alongside innovative empirical analyses.

Secondly, and perhaps most significantly, *Hazards, Vulnerability and Environmental Justice* represents an impressive interdisciplinary contribution to the hazards, risk and environmental justice fields. Of particular note, Cutter has genuinely sought to develop integrative approaches that link work on physical vulnerability (primarily associated with natural hazards research) with social vulnerabilities and the burgeoning environmental justice field (predominantly associated with technological hazards research) - offering a valuable perspective on some important inter-relations and on the need to pay attention not just to physical but also to social contexts in hazards and disaster research. This approach is well illustrated in the opening section (*Pathways to Disaster*) which presents both a
useful analysis of the Hurricane Katrina disaster – stressing the critical role of failings in political, economic and social systems – and a retrospective view of Cutter’s academic career, tracing the diverse intellectual and political influences that have shaped the author’s interdisciplinary research trajectory.

The book has some limitations, however. The collection lacks a clear introduction that cogently draws together the content of this rather thick tome. Whilst undoubtedly an interesting piece, the opening section presents only minimal discussion of the overarching themes that structure the text (the overview of the full 26 chapters extends to barely one page). In this regard, and in the absence of a concluding section, an introductory outline for each of the five sections would have been very welcome – to develop the core themes and to link more concretely what, at times, felt like rather disconnected papers as well as to highlight the salient ideas and lessons running through the volume. I can certainly see the utility and value of an extensive collection of published papers by the author (particularly given that some are now difficult to track down). Nonetheless a shorter volume emphasising key papers and developing more thematic discussion would have helped with overall coherence and avoided the occasional tendency towards repetition of material.

Another limitation, evident from the section titles, is that the volume tends towards the descriptive and as such can lack analytical and critical depth. For me, at least, the approach presented in this collection misses an opportunity to really grapple with some key debates around the binary thinking embedded in much hazard and risk research (e.g., natural/unnatural, real/constructed, facts/perceptions). I was disappointed to find that the book does not really engage with many recent advances in social theories of risk and hazard – with only a few passing references to risk society, socio-cultural and science studies perspectives and with no development of these ideas or consideration of their implications for the practical work of vulnerability science or hazard management. There is, for instance, no real discussion of the now substantial literature that emphasises the situated, constructed and often contested meaning of risk (rather than viewing risk purely in terms of likelihood of occurrence). Indeed, whilst Cutter repeatedly refers to the importance of perception, of place and of context she does, at times, take a rather de-contextualised approach to the subject matter – with analysis almost entirely confined to quantitative statistical analysis, and with very little role identified for more qualitatively based approaches to core topics.

There is also some very mixed language here – which may well be a function of the changing views and arguments of the author over the course of a programme of work spanning three decades. In this regard it is noticeable that much of Cutter’s later work seems to go a long way to recognising the blurring distinction between ‘natural’ and ‘unnatural’ hazards, a distinction which is elsewhere sustained. However I am left doubtful that the theoretical or practical significance of this acknowledgement (and the interlinking of social and biophysical vulnerability) is effectively captured and developed in the overall text. Although Cutter does quite distinctly set out her research agenda as an applied one the overall collection would have benefited from a stronger conceptual or even critical framing and perhaps also a more reflexive stance – to more firmly (geographically and historically) locate or
contextualise the body of work in relation to Cutter’s overall research trajectory, which is set up so well in the introductory section.

A final and linked issue that *Hazards, Vulnerability and Environmental Justice* raised for me centres on the distinction Cutter occasionally draws between applied and less concrete theoretical research. Cutter’s response to the possible criticism that the research is “over applied” is as follows: “why spend an entire research career staring at your navel when you have a chance to make the world a better place for your children and grandchildren by providing sound science in support of public policies?” (xxvii) This is no doubt a legitimate stance. Indeed, I think it is in this statement that we get the clearest articulation of the aim of the overall collection: that is to showcase developments in the science of risk and vulnerability assessment and their (potential) role as a support for public policy and decision-making. This is certainly achieved. Nonetheless this statement and the thrust of the collection does, it seems to me, set up a problematic tension in relation to the practical relevance of empirics vs. theory. Indeed, at various points in the text Cutter herself laments a lack of theoretical development in a number of areas of research and recognises the significance of theory in supporting policy and practice (e.g., 377–378). Here, it seems to me, it is essential for those working within interdisciplinary fields, such as risk, hazard and vulnerability, to move beyond this sort of binary language. It is without doubt the case that a broad range of theoretical perspectives can and do have an essential role to play in understanding and responding to the complex physical, structural and socio-cultural processes that produce hazardous places and vulnerable populations.

Notwithstanding these points, this collection does provide a comprehensive and thoroughly researched base for examining the relationship between hazard, vulnerability and justice.

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**The Social Contours of Risk, Volumes 1 and 2**

Jeanne X. Kasperon and Roger E. Kasperon  
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In 2006, Roger E. Kasperon was the recipient of the Distinguished Achievement Award, the highest academic honour that the Society for Risk Analysis awards to scholars who have shaped the field of risk analysis. In his address Roger attributed much of his academic accomplishments to his late wife Jeanne with whom he had written numerous books and articles over their long companionship as married couple and academic colleagues. Both Roger and his late wife Jeanne have been known as pioneers in the field of risk for the last three decades. The Kaspersons were among the initiators of the Clark University team, which in the early 1970s started, together with Robert Kates, Chris Hohenemser, and Rob Goble, a
productive series of scholarly activities around risk assessment, management, and communication. The early work of this Clark Group has been instrumental to the field of risk analysis ever thereafter.

The two volumes titled “The Contours of Risk” include a representative sample of the scholarly work that Jeanne and Roger (in addition to numerous other co-authors) have produced over their lifelong dedication to risk. In the tradition of the Earthscan series focussing on collections of seminal articles by outstanding authors, the two books present a retrospective impression of 25 years of contributions to the analysis of risk and vulnerability. Many of the articles in the two books belong to the most frequently cited works in risk analysis; others have been less prominent but supplement the overall collection. Including articles that have partially been written more than two decades ago always faces the risk that the research described therein is so outdated that the messages have only historic value. But when reading through some of the older chapters of the book it was amazing how the subjects covered in these articles still speak to the present debates in the risk community. For example, the first chapter in volume 1 addresses the problem of public participation and was first published in 1986, more than 20 years ago. However, the topics addressed in this article focus exactly on the same problems that the present Panel of the U.S. National Academy of Sciences on “Participation in Environmental Decision Making” is struggling with. The importance of due process, trust in institutions as well as the distinction of different audiences and arenas have been addressed in this chapter and will be addressed in the upcoming National Academy Report. It is not that over the last 20 years there had been no progress in participatory research, but that Roger in this chapter had the foresight to understand the crucial issues that need generic attention and careful planning regardless of how much one knows empirically about participation.

Each volume starts with a brief history of the professional lives of both Jeanne and Roger. It is more a personal account of what motivated the two to progress in their work rather than a chronological report on accomplishments or projects. This brief introduction also serves as a reminder of the main topics of risk analysis over the years. It began with the development of quantitative tools and their use in assessment and management. Due to the leading social scientists in the risk field such as the Kaspersons (and in particular Paul Slovic), this technical concept of risk was complemented by research dealing with risk perception, institutional performance of risk assessment and management agencies, as well as broader issues of management, governance and communication. In particular, Roger was interested in the investigation of the dualism between empirical public acceptance and normative acceptability of risks. The first part of volume 1 picks up this tension as well as part 3 of volume 1 and part 1 of volume 2.

Part 1 of volume 1 presents articles about public participation and stakeholder involvement. These articles reflect an enthusiastic support for more democratic procedures into the risk management process but also a cautious note that powerful stakeholders could sail under the flag of participation and use the well-intended platforms for involvement as levers for pushing their self-interest. Not everything that runs under the label of public participation contributes to the best interest of the people. If participation does not orient itself towards including the interests and
values of those who will be affected by the risk consequences it may not serve the
ultimate goal of the common good or, in the words of Roger Kaspenson, “...it is
time to put the brakes on the current stakeholder express, or to switch to the local,
so that these processes become much more reflective and self-critical...and that they
are accountable to and collaborative with those in whose names the experiments are
mounted.” (vol. 1, p. 96)

This theme of accountability is also a major songline in part 3 of the first volume
dealing with risk and ethics. This part of the book deals with equity issues, siting
problems and social justice in global climate change. All these topics reflect again an
almost timeless sensitivity to what matters in the ethical debate about risk. The issue
of informed consent in occupational risk is addressed (and partially challenged) as
well as the institutional requirements for effective siting procedures. The articles in
this section are inspired by a sceptical view with respect to good will and individual
intentions but emphasize transparent procedures, checks and balances and, most of
all, accountable institutions. This theme is reiterated in the section on corporations
and risk. Roger, Jeanne and their co-authors are not satisfied with the conventional
distinction between corporate and public responsibility. They advocate an
accountable and transparent process of risk management and care from the cradle
to the grave. This includes careful contingency planning, cooperation with suppliers
and customers, and reflexive networking with public authorities, civil society actors
and the public at large. The article on “Avoiding Future Bhopals”, co-authored by
B. Bowonder from India, demonstrates the dedication towards a holistic view of risk
management and a comprehensive assessment of physical and social factors that
could lead to accidents.

Two subjects are at the core of all the contributions of Roger and Jeanne: global
environmental change and social amplification of risks. These topics are related: the
transboundary consequences of risk-taking behaviour is one of the main amplifiers
of risk that create the famous ripple effect, expanding in circles from the source of
the risk to wider audiences, contexts, regions, or countries. In addition, social
processes attenuate or amplify the experience of risk and transport the manifesta-
tions of these experiences from one country to the next. Volume 2 dedicates a whole
section to the topic of globalised risks. The articles included in this section are
products of a series of research projects on the earth in transformation. The key
term here is vulnerability: Risk agents may trigger very different impacts on society;
the extent of damage depends on the properties of the risk absorbing system. Either
it can withstand stressful events or it is already at the edge of its tolerability. If faced
with a hazardous event, some systems are able to cope with it and others are not.
The articles provide convincing empirical evidence that vulnerability is unequally
distributed around the world. The poor countries do not only have to live with less
resources than the rich they also lack the capabilities to cope with disasters or
environmental changes. There are a few exceptions from this rule, and they are well
explained in the articles, but overall the authors come to the conclusion that the
poor suffer the most in terms of their own income but also in terms of their
vulnerabilities.

One could continue to characterise the many contributions in the two volumes.
People interested in nuclear risks, natural hazards, climate change and corporate
safety culture will find interesting and challenging insights about these topics. In spite of the great variety and diversity of topics and subjects, there is one common thread that continues through the entire two volumes. It is the belief in human agency and an overarching rationality that empowers humans to cope with uncertain events and master potential catastrophes. The works of Jeanne and Roger Kasperson provide powerful testimony to the belief that analytical rigour and humanistic values are our essential cultural gifts that enable us to make the world a safer place. For anybody interested in the integration of analytical thinking and value-based reasoning in the field of risk analysis the two volumes are an absolute “must”.

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Nanotechnology: Risk, Ethics and Law
G. Hunt and M. Mehta (Eds)
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Nano may refer to a particularly small scale (1 billionth of a metre) but research, investment, and political interest in nanotechnology is anything but tiny. Furthermore, risk and/or social researchers’ interests in things nano has also grown beyond a small curiosity. In addition to the emergent range of scientific nanotechnology books on the market there are now also a small but growing number of nanotechnology social-research books. This is significant in that, as the editors point out, nanotechnology is as much a public issue as it is a scientific issue, and the important questions about nanotechnologies may not be posed, or may not be considered deeply and quickly enough, if left to industry/commerce. For this reason this collection, in bringing together various scholars to explore the risks, legal and ethical issues of nanotechnologies as they are emerging in Europe, Japan, Canada, and the USA, is a much needed addition to the field. This book aims to be one of the first comprehensive books on the impacts of nanotechnology, and addresses specific cases of the utilisation of nanotechnologies in medicine, industrial processes and products, and foods.

As social researchers the fascination with the emerging field of nanotechnologies includes the opportunity to raise issues for (early) consideration and even highlight potential ways of influencing societal/political and/or technological development. Nanotechnology: Risk, Ethics and Law considers nanotechnologies within the context of the ‘GM experience’ with the worthy aim of encouraging learning from past experience. Although one could say that there is some learning occurring as a result of many stakeholders reflecting on the introduction of genetic modification (GM), GM is a rather problematic comparison, albeit one which the authors may have been able to make more of through exploring more of the differences between the two cases. Such an analysis would highlight the contrasts which prevent nanotechnology becoming another ‘GM’, and refine some of the similarities that do exist.
Although many authors in the book generally handle this comparison with great sensitivity there is the suggestion that public support for nanotechnologies can be nurtured through early and often public input. This implies that involving the publics early will lead to greater public acceptance of nanotechnologies. In this respect the editors’ discussion on public involvement reflects their broader emphasis on impacts of nanotechnology on society. Such an approach contrasts with conceptualisations of the science-society relationship as entailing interactions between science and society, which are inherent within the current notion of ‘upstream engagement’. Within ‘upstream engagement’ early public involvement with stakeholders (such as scientists, industry and civil society representatives, and policy makers) entails a process of dialogue that may open up contrasting visions for the future for consideration and facilitate mutual learning, thereby contributing to the ‘co-production’ of emerging nanotechnologies.

However public dialogue is handled in a very considered way in two notable chapters. ‘Going Public: Risk, Trust and Public Understandings of Nanotechnology’ by Julie Barnett, Anna Carr and Roland Clift (chapter 16) provides a very nice review of the literature on public perceptions of nanotechnologies, and introduces the call for early ‘upstream’ engagement in the UK through their discussion of the Royal Society and Royal Academy on Engineering’s inquiry of 2004, while Roland Clift, in ‘Risk Management and Regulation in an Emerging Technology’ (chapter 12), discusses public engagement as an anticipatory approach to risk management. A member of the 2004 Royal Society/Royal Academy of Engineering inquiry, Clift asks if the study will really prove to be a paradigm shift or if the hopes of upstream public engagement will prove to be ‘as fanciful as some of the claims made for nanotechnology’.

These chapters are certainly not the only chapters that will be of interest to Journal of Risk Research readers as the collection in addressing ‘Risk, Ethics and Law’ provides an introduction to many of the pertinent issues regarding nanotechnologies. From the regulatory challenge of materials’ chemical and magnetic properties often changing at different sizes, and discussions about nanoparticle potential toxicity (C. Vyvyan Howard and December S. K. Ikahon, ‘Nanotechnology and Nanoparticle Toxicity: a case for precaution’, chapter 13) to the unregulated use of nanoparticles in food (by Árpád Pusztai and Susan Bardocz, in ‘The Future of Nanotechnology in Food Science and Nutrition: can science predict its safety?’ chapter 14); and the 2 million or so workers who are exposed to ultra fine particles in their work in the US alone (as Kirsty Mills in ‘Nanotechnologies and Society in the USA’ describes in chapter 7). There are also a variety of other ethical and legal matters discussed, and a case in point is a fascinating analysis of the patenting system and how it interacts with nanotechnologies in ‘Nanotechnologies and the Law of Patents: A Collision Course’ by Siva Vaidhyanathan (chapter 18). In this chapter Vaidhyanathan explains how the very system established to protect intellectual property with the aim of fostering innovation is at risk of turning into an anti-commons with a patent thicket of overlapping prospecting patents. As the author explains, in the ill-defined world of nanotechnology nanotubes have been patented 250 times already. He likens this to patenting the common brick meaning that innovation could be stifled as patents are
negotiated for the most common tasks — or it just becomes too difficult for small outfits to even bother taking on the patent thicket.

Similarly, in a refreshingly frank chapter on ‘The Global Ethics of Nanotechnology’, Geoffrey Hunt (chapter 15) puts the potential benefits of nanotechnology into balance within the context of structural injustices. He describes the likely scenario being profit seeking pharmaceutical companies seeking nanomedicines for the industrialised world to address diseases that are largely a result of over-consumption and damage to the ecosystem. One of his illuminating examples of the status-quo is that while approximately $US15 billion is spent on perfume every year it would only cost an extra $US10 billion to give everyone in the world access to clean drinking water. He concludes that nanotechnologies are already taking shape within the present socio-economic structures and that if nanotechnologies are to benefit human welfare, and not just affluent societies, traditional social and economic assumptions cannot go unchallenged.

In conclusion I think this collection provides a good introduction to many of the multifaceted issues surrounding nanotechnology. This makes it a worthwhile resource for anyone whose interests come into contact with nanotechnologies — from undergraduates (in either the social or physical sciences) to investors.

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