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Editorial Introduction: Risk, Culture and Social Theory in Comparative Perspective

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Writing in 1986, it was possible for Sheila Jasanoff to assert that

> [S]urprisingly little comparative research has been done on the way different societies think about and seek to control [risks]. The dearth of cross-national research can be attributed, in part, to the provincialism of traditional policy analysis. Such studies tend to regard risk management decisions as the product of distinctively national legal and administrative processes and are skeptical about the possibility that lessons learned within one policy system can be transferred to another (Jasanoff, 1986).

While we can debate the extent to which countries have learned from one another's experiences assessing and regulating risk, the past decade has seen no shortage of attention devoted to the comparative study of environmental uncertainty. In the years since Jasanoff's appraisal, a steady stream of publications has revealed that cross-national examination can indeed provide beneficial insights into how different societies perceive and respond to the risks emanating from science and technology (Vogel, 1986; Kasperson and Kasperson, 1987; Joppke, 1993; see also Nelkin, 1980; Lundqvist, 1980). In particular, comparative investigations illuminate the socially constructed qualities of risk and the way in which culture mediates understanding. Let us take a couple of rather trivial examples to illustrate how risk is a contingent phenomenon.

Across much of the United States during the past several years parents have been lobbying their local councils to pass ordinances requiring school-age children to don protective helmets when riding their bicycles on lightly trafficked suburban sidestreets. Though they demonstrate such vigilance for their children's neighbourhood cycling excursions, many of these same Americans apparently evince little concern for the genetically-modified ingredients that are now becoming staples of processed food. By way of contrast, Dutch youngsters

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without any headgear careen around on the handlebars of rickety three-speed bicycles. Their parents, however, react angrily to reports of biotechnologically engineered soyabeans and express support for activists who block the importation of such products.

While there may be cross-national disparity in the number of children injured from bicycle accidents, it is doubtful that American or Dutch parents are even dimly aware of such statistics or incorporate such information into their risk assessments. Furthermore, we would be on dangerous terrain to presume that Americans' emotional attachment motivates them to ensure their progeny's safety on the roadways but not at the family dinner table. We can more readily attribute such attitudinal and behavioural variations to cultural disparities between the two countries and could site examples from virtually any public policy area concerned with health or the environment to illustrate these differences.

This special issue brings together contributions from nine scholars who have been working at the frontiers of the comparative study of risk. Most of the papers that follow use a cross-national approach to investigate public attitudes to risk in a broad range of settings including Germany, Sweden, Denmark, England, and the United States. Two of the authors represented here adopt more creative interpretations for carrying out comparative studies that reach considerably beyond conventional methodologies of country-level contrasts. One contributor highlights the temporal dimensions of novel forms of environmental uncertainty and a second selection, grounded in the sociology of language, compares the different objectives that lay people seek to satisfy when they speak about risk. In this sense, this issue provides a farrago of perspectives on the most befitting way to exploit the utility of comparative methodologies.

Political scientists interested in the effects of different regulatory regimes and systems of governance have been responsible for most comparative risk research conducted to date. The papers in this issue depart from this tradition and instead draw on insights derived from social theory. There has been over the past decade a dramatic upswelling of interest in risk among theoretically-inclined sociologists and several writers have suggested that a pervasive sense of anxiety is a central feature of the current phase of modernity (e.g., Giddens, 1990; Beck, 1992). This collection represents an initial attempt to situate these recondite impressions in distinct contexts and to scrutinise them from a variety of comparative perspectives.

Sheila Jasanoff, in this issue's initial contribution entitled 'Songlines of Risk', identifies three different epistemological approaches for the analysis and management of risk. The first, and by far the most widespread, school of thought views risk in rational, scientific terms as a statistically determinable measure of harm. Seen in such a positivistic light, the study of risk is a narrowly circumscribed area of expertise most appropriately pursued by individuals with advanced training in disciplines such as toxicology, epidemiology, and ecology. A

second perspective grounds its understanding in the sociology of science and suggests that risk is not amenable to scientistic techniques; rather we need to interpret risk as a cultural construct. These two modes of thought have served as the dual focal points for extensive research and both have inspired no shortage of criticism. Rather than revisit these well-worn paths, Jasanoff uses this opportunity to develop a third, more innovative perspective that treats risk as a specialised language and set of practices for managing uncertainty and maintaining existing power relations.

One way of exploring how we use uncertainty for such purposes is to comparatively examine the way in which different countries handle risk issues. This approach is necessary because, as Jasanoff states, 'there *is* a political dimension to ways of thinking about uncertainty ... [and] risk concepts are not simply neutral descriptions of nature' (italics in original). These differences become especially salient in cases involving transboundary environmental dilemmas such as climate change and acid rain that generate political responses designed to privilege science and to establish highly centralised organisations geared toward smoothing out conflicting viewpoints. Through descriptions of a diverse array of evocative images, ranging from Vincent Van Gogh's reflections upon his own masterpieces to historian Paul Fussell's vivid accounts of the horrors and ironies of World War II, Jasanoff gives us reason to be suspicious of proposals to create autocratic governmental systems for the regulation of risk. She asks if we really want to manage uncertainty with bureaucratic institutions, operating with military precision, or whether the facilitation of more deliberative decisionmaking might not be a more advisable course.

This issue's second paper by Maurie Cohen entitled 'Science and Society in Historical Perspective' also takes the national contextualisation of global environmental problems as its point of departure. Rather than focus on the implications of this set of ecological concerns for policymaking, he raises some cautionary questions about the efficacy of risk as a core concept for environmental social theory. In particular, it has recently become common in some circles – largely as an outgrowth of the popularity of Ulrich Beck's risk society thesis – to speak of all advanced societies as being transfixed by anxiety. Cohen argues that such observations arise from a distinctly German orientation regarding modernisation.

This contribution develops the notion of scientific *mentalité* and uses social survey data regarding public attitudes toward science and technology to demonstrate that European countries display striking differences in their views toward rational knowledge. This evidence indicates that the whole of European society does not apprehend technical expertise as an unambiguous source of human enhancement, but rather there are discernible cross-national patterns of variation. To explain this disparity Cohen provides us with a comparative examination of how England and Germany culturally absorbed science during the seventeenth and eighteenth centuries. He focuses in particular on the challenges

scientific knowledge faced from competing epistemologies and the ways in which educational institutions assimilated these new social ideas. This analysis reveals that the uneasiness influencing some German social theorists over the past decade has deep roots in the country's social history, and we should be sceptical about propositions suggesting that this condition is a more universal phenomenon of the current age.

Jost Halfmann begins his paper entitled 'Community and Life Chances' with a discussion of the Enlightenment notion of progress and argues that changing public perceptions about the warrant of this ideal are the fundamental causes of the apprehension that many observers see as an essential element of contemporary life. He contends that 'the notion of technological progress is no longer associated primarily with the betterment of humankind, but is now often connected to dread and catastrophes'. Halfmann draws on Mary Douglas and Aaron Wildavsky's cultural theory of risk, specifically their distinction between centre and periphery, to distinguish prototypical European and American organisational forms of activism. Because most European countries vest public authority in the state, the periphery in these nations must press its claims in the political sphere. In contrast, the weakness of the American state has made it necessary for social movements in the United States to direct their agenda toward civil society.

Invoking Germany as a paradigmatic state-centred European country, Halfmann demonstrates how this nation's political structures shaped social movement activities around civilian nuclear power during the 1970s and 1980s in ways that were markedly distinct from those in the United States. Though nuclear energy was the ostensible issue around which social movements formed in the two countries, and both German and American activists pursued similar utopian ideals, these structural differences dictated their respective campaigning strategies. Opponents of nuclear energy in Germany had 'no other choice but to directly confront the state', and such efforts eventually led to the creation of the Green Party, the standard bearer of European Green politics. Their American counterparts were less interested in changing the machinery of government or undermining the legitimacy of the state and instead committed themselves to 'building a peaceful and egalitarian community'. Despite these dissimilarities, both the German and American anti-nuclear movements have enjoyed considerable success, and it is at least partly the result of their efforts that the two nations have not been able to expand civilian nuclear capacity since the mid-1980s.

Andrew Jamison and Erik Baark take up some of the same historical themes as the two previous papers. Their contribution, entitled 'National Shades of Green', however redirects our attention more pointedly to the realm of science and technology and to how we can use these institutionalised forms of knowledge to ameliorate environmental risks. Rather than view science and technology solely as sources of potential harm (as many risk analysts are inclined to do),

Jamison and Baark highlight how practitioners in these fields are working to bring about a new phase of environmental improvement. Innovative organisational combinations involving government with corporate and non-governmental partners are tapping a growing interest in cleaner and more energy-efficient production technologies and this is catalysing a process that some commentators have labelled 'ecological modernisation'. Ecological modernisation is not taking the same form in all countries, but is instead being shaped by individual nations' idiosyncratic policymaking styles.

Jamison and Baark's study of ecological modernisation examines the experiences of Sweden and Denmark. The authors demonstrate how, due to distinct historical forces, natural endowments, and institutional structures, these two countries bring very different propensities to the task of environmental reform. Accordingly, Sweden and Denmark – nations that are remarkably alike in many ways – are adopting paths toward ecological modernisation that are quite different. As an extension of their country's imperialistic legacy and bureaucratic disposition, the Swedes are pursuing ecological modernisation largely as a paternalistic affair involving government planners and the managerial leadership of the country's large industrial firms. In contrast, Jamison and Baark report, the Danes are giving their version of ecological modernisation a more pragmatic and decentralised orientation, one that finds its origins in long-established national traditions and institutions. The chief lesson of this cross-national examination is that even in seemingly similar countries we find sharp cultural differences in the policy styles used to engage with risk issues.

In a paper entitled 'Industrial Food for Thought' Barbara Adam offers a comparative analysis of risk that departs methodologically from the four previous papers in this collection. Rather than focus on how people differently perceive and respond to risk across space, she illustrates the temporal distribution of uncertainty. Adam begins her contribution with a description of the complex global system that puts food on our plates. At issue is the intensification of production that results in the creation of novel risks. As presently constituted, individual farmers, due to their weakness relative to the large, multinational companies that control product flows, are especially vulnerable to market fluctuatons. Adam also describes some of the essential features of the insurance and futures trading programmes in place to apportion risk arising from the vagaries of weather. She highlights the multifarious strategies available on the production side to externalise risk by shifting the costs of uncertainty onto the weakest elements in the chain.

Adam then focuses her attention on some of the new hazards that consumers confront when trying to negotiate the aisles of conventional supermarkets. Echoing Uwe Poerksen's (1995) definition of a plastic term, Adam relates how the once familiar descriptor 'freshness' has come to contain, at least as a technical term used by food producers and regulators, a variety of ambiguities.

While the word previously referred to a food item that farmers had harvested in the relatively recent past, the agricultural system now regularly uses it to label foodstuffs that stretch this connotation substantially. For purposes of controlling maturation and extending shelf life, distributors now subject many foods to atmospheric ripening, chemical treatment, and irradiation. They then regularly market these products to consumers as 'fresh' because government regulatory bodies do not consider these techniques to be significant deviations from 'normal' conditions. The result is that fruits and vegetables that have been stored for prolonged periods or exposed to various unnatural processes turn up on supermarket shelves as 'fresh'. This elongation of the timespan during which products are deemed 'fresh' is no doubt profitable for producers, but creates new food safety problems that consumers must confront without the benefit of full disclosure. Such information deficiencies make it impossible for consumers to act as the rational actors that many influential social science theories demand. Adam concludes her contribution with some speculations on the importance of the temporal analysis of risk for social theory and on contemporary concerns about the need to develop more contextualised understandings of knowledge.

Bronislaw Szerszynski examines the various strategies at play when laypeople speak in the language of risk and offers us a linguistic comparison between conventionally perceived and actually intended forms of speech. Risk researchers typically interpret public affirmations of trust as unproblematic expressions of confidence in the ability of industrial managers and government officials to execute their responsibilities effectively. The author suggests that this interpretation fails to capture the complex ways that laypeople use language. After first relating his approach to more familiar perspectives within the social theory of risk (namely reflexive modernisation) and the sociology of scientific knowledge, Szerszynski argues that individuals exposed to risky technologies may in fact be striving to satisfy a number of subtle objectives.

More specifically, this contribution suggests that public and private discourse about risk, by drawing on the speaker's relationality with other actors and institutions, may be motivated by performative goals intended to bring about certain social effects. Szerszynski is claiming that when laypeople express confidence in, say, the operators of a local industrial facility, one thing they may be seeking to do is to bind the relevant corporate managers into a relationship of trust. In other words, through a specific speech act, individuals may be attempting to transform social identities and relationships. Interestingly, it does not even matter whether the 'entrusted' party is present to hear the appeal. The layperson living in a hazardous environment over which she has little control might be using speech performatively in much the same way as a religious devotee relies upon prayer.

Brent Marshall, in his offering entitled 'Globalisation, Environmental Degradation, and Ulrich Beck's Risk Society', returns us to the spatial and geopo-

litical spheres of comparative analysis. He assimilates expansive literatures pertaining to international political economy and environmental sociology and points to how these two fields can be integrated for mutual benefit. In particular, Marshall describes how globalisation theorists fail to address environmental degradation as more than an add-on theme – much like a conventional engineer might screw a piece of pollution control technology onto an industrial system – rather than a fully-integrated area of import for theory-building. He then proceeds to identify some key issues for incorporating the way in which global capitalism, as well as neo-liberalism more generally, are undermining the integrity of ecological systems, especially in peripheral regions.

Marshall's early discussion provides the scaffolding for an interrogation of Ulrich Beck's risk society thesis. He casts doubt on the generalisability of this theoretical approach because of the way it is historically and spatially situated in a northern European context. The breadth of these nations' social welfare systems has indeed meant that politics predicated upon material needs has pushed inequality to the margins. However, the situation is very different in other countries – most prominently the United States – and Marshall argues that risk society theory has quite limited applicability in nation-states lacking a standing commitment to wealth redistribution. Marshall also draws attention to the fact that Beck's exclusive focus on so-called 'mega-hazards' fails to acknowledge how micro-level technological hazards arising from localised sources of contamination compound existing class divisions at both national and international levels of analysis. Accordingly, he contends that conventional expositions of the risk society hypothesis remain fixed in an increasingly outmoded understanding of the nation-state and that we must reorient our theoretical gaze to account for social changes at the global level.

To meld the largely theoretical perspectives that comprise this issue with concrete events from the world of environmental politics Robin Grove-White provides us in the concluding contribution with a personal memoir. Drawing on a host of recent episodes – among them the public uproar over the disposal of the *Brent Spar* oil platform, the British bovine-spongiform encephalopathy crisis, and the public unease about genetically-modified foods – he describes the malleability of scientific understanding and the way in which 'scientific facts' are routinely constructed to conform to prevailing political prerogatives. Contemporary political institutions are motivated by a need to wrap their decisions in the garments of purportedly 'sound science', efforts that in the end undermine their own authority and tarnish the legitimacy of science. As 'official' and public commitments grow increasingly divergent, the politics of environmental knowledge grows ever more hostile and intractable. Grove-White's absorbing reflections remind us that more sociologically-informed perspectives for viewing environmental issues are indispensable as we negotiate our way toward a future that lacks the reassuring markers of modernity.

NOTE

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