
Ulrich Beck, 'Risk Society' and the Media

A Catastrophic View?

■ *Simon Cottle*

ABSTRACT

■ Ulrich Beck has placed ideas of 'risk society' on the intellectual map; his social theory of late modern society and its endemic production of potentially catastrophic risks has attracted, rightly, considerable academic interest in Europe and beyond. Dispersed across his writings is a view of the mass media which is theoretically positioned as playing a crucial role in processes of risk revelation, the social contestation that surrounds scientific knowledge of risks, and also processes of social challenge to 'risk society'. It is surprising, then, that his ideas have so far been largely ignored by mass communication researchers — especially by those working in the fields of risk communication and the environment. This article offers a critical exposition of Beck's ideas on the mass media in 'risk society'. It indicates how these are indebted to his wider social theoretical views on the historically unprecedented nature of contemporary 'risks' and processes of 'reflexive modernization', and opens them up to engaged discussion and criticism. Beck's thesis speaks to the conditions of our time and provides theoretical coordinates of potential use to mass communication researchers. It can be criticized nonetheless for its uneven, underdeveloped and often contradictory positions on the mass media. ■

Key Words ecology, environment, media, reflexive modernization, risks, risk society

Simon Cottle is Reader in Mass Communication, Sociology Department, Bath Spa University College, Newton Park, Newton St Loe, Bath BA2 9BN, UK. [email: s.cottle@bathspa.ac.uk]

European Journal of Communication Copyright © 1998 SAGE Publications (London, Thousand Oaks, CA and New Dehli), Vol. 13(1): 5-32.
[0267-3231(199803)13:1; 5-32; 002641]

Introduction

In recent years the ideas of Ulrich Beck, for understandable reasons, have generated considerable interest both within the world of academe and beyond. Promising nothing less than a sustained, theoretically rigorous and radical critique of late modern society, a society increasingly defined in terms of heightened 'risks' and environmental degradation, his ideas speak to both social theorists and environmentalists and at once resonate with and help explain growing ecological awareness and concern. Beck more than any other sociologist has placed ideas of ecology and 'risk society' centre stage and his writings offer a profoundly original way of conceptualizing and thinking about the nature, problems and dynamics of late modern society.¹ Encompassing social theoretical themes of 'reflexive modernization', 'detraditionalization', 'globalization' and 'individualization' his social theory, like that of Giddens to which his is often compared, is equally impressive in scope and indeed the two authors have engaged in productive debate (Beck et al., 1994). Unlike Giddens, however, Beck's writings grant a far more prominent, albeit sometimes uneven, underdeveloped and contradictory, importance to the mass media in processes of 'reflexive modernization' and 'risk society'.² Not that Beck's views on the media are readily transparent; his thoughts, for the most part, remain scattered across his writings and often appear to play a metaphorical role, buttressing ideas about 'reflexivity' and symbolizing both public concerns and political impotence in the face of the inexorable rise of 'risk society'.³

At the heart of Beck's social theory, nonetheless, can be discerned a set of positions centring the mass media as fundamental to processes of reflexive modernization. This article sets out to explicate these relatively 'buried' references in the conviction that there is much here worthy of critical discussion. Surprisingly perhaps, Beck's work to date has not received the critical attention that it deserves from mass communication researchers specializing in the communication of environmental and other risks.⁴ Perhaps this is because the grand speculative sweep and abstract level of Beck's social theory does not always sit comfortably with the more theoretically focused and empirically grounded interests of most mass communication researchers; perhaps Beck's style of exposition and less than media-centric social theory has contributed to the dialogue of silence. Beck's social theory and ideas on the media are nevertheless worthy of serious scrutiny, and mass communication researchers for their part have much to contribute to such an engagement.

What follows, then, is a critical exposition of Beck's theoretical ideas

on the media found across his most important writings, and the part played by these in his ideas of 'risk society'. It does not pretend to be a comprehensive review and critique of his social theory in general (see Goldblatt, 1996); rather, it aims specifically to explicate his views on the media, indicate how these are tied to his wider social theory of 'risk society' and 'reflexive modernization' and open these up to engaged criticism and comment.

Risk society and the mass media

Beck has coined the phrase 'relations of definitions' to encapsulate his view of the way 'risks', that is, potentially catastrophic manufactured uncertainties, are socially constructed within public discourse. 'Relations of definitions include the rules, institutions and capacities that structure the identification and assessment of risks; they are the legal, epistemological and cultural matrix in which risk politics is conducted' (Beck, 1997b: abstract). From a mass communication standpoint this formulation is promising, encapsulating as it does the necessity to attend to *both* institutional and structural dynamics and resources, as well as the more discursive, normative and cultural features informing the political contestation surrounding knowledge of 'risks'. Not surprisingly, the potential contribution of the mass media to such 'relations of definitions' has not gone unnoticed by Beck. To what extent he has delivered theoretically on this formulation with particular regard to the mass media forms the focal point of discussion below. Beck's historically specific understanding of 'risks' and 'risk society' leads him to the theoretical identification of the mass media as a privileged site for (1) the social construction, (2) the social contestation and (3) the social criticism of risks and 'risk society'.

Risks such as those produced in the late modernity differ essentially from wealth. By risks I mean above all radioactivity, which completely evades human perceptive abilities, but also toxins and pollutants in the air, the water and foodstuffs, together with the accompanying short- and long-term effects on plants, animals and people. They induce systematic and often *irreversible* harm, generally remain *invisible*, are based on *causal interpretations*, and thus initially only exist in terms of the (scientific or anti-scientific) *knowledge* about them. They can thus be changed, magnified, dramatized or minimized within knowledge, and to that extent they are particularly *open to social definition and construction*. Hence the mass media and the scientific and legal professions in charge of defining risks become key social and political positions. (Beck, 1992b: 22–3)

The nature of contemporary 'risks' for Beck are historically unprecedented in terms of their spatial and temporal reach, their potential catastrophic effects and, importantly, their invisibility. They can only become 'visible' when socially defined within knowledge or knowledge-processing fora such as science, the legal system and the mass media. This is a social-constructionist formulation in which the nature of contemporary risks are highly susceptible, if not dependent, upon the means by which they are made socially visible. The tension between ontological statements about what is, that is, the unprecedented nature of contemporary risks, and epistemological statements about how we can come to know these, that is, how they are 'visualized' in processes and fora of social definition is discussed below. Here it is apparent that Beck's conceptualization of risk inevitably leads to the identification of the mass media as a prime site of social definition.

Further, given the increasing production by technologically advanced capitalism of risks that threaten us all — ironically, so-called democratic '*bads*', in contrast to inegalitarian '*goods*' (Beck, 1994: 6); and their universalizing tendencies ('*poverty is hierarchic, smog is democratic*'; Beck, 1992b: 36) — new antagonisms and social conflicts arise. At the heart of such conflicts is the contestation that surrounds and informs public knowledge and debate about these risks and their consequences. Again, the media are identified as a key arena in which such social contests over definitions, knowledge and risk consequences are played out.

As the risk society develops, so does the antagonism between those *afflicted* by risks and those who *profit* from them. The social and economic importance of *knowledge* grows similarly, and with it the power over the media to structure knowledge (science and research) and disseminate it (mass media). The risk society in this sense is also the *science, media and information* society. Thus new antagonisms grow up between those who *produce* risk definitions and those who *consume* them. (Beck, 1992b: 46)

Critics may well want to challenge the generalizing idea that '*bads*' are democratically distributed to all and question the extent to which new fault lines of opposition and alliance are formed in the wake of the production and consumption of '*risks*',⁵ but for our purposes it is clear that the media are theoretically granted a crucial role in processes of social construction and social contestation of risk.

Beck's understanding of 'reflexive modernization' also leads him theoretically to argue that the media, notwithstanding their commercial pursuit of ratings, readers and revenue and consequent parading of spectacle, drama and entertainment, can serve to focus the spotlight on society's latest technologically induced catastrophes and environmental

disasters. In today's 'risk society', where calculations of risk, risk avoidance and risk compensation are based upon earlier industrial society's more knowable, calculable, controllable and predictable risks, the institutional responses towards the 'social explosiveness of hazard' are destined to be inadequate: following each disaster such 'organized irresponsibility' inevitably attracts the media spotlight.

The hazards can only be minimized by technological means, never ruled out. In an age of world-wide growth of large scale technological systems the least likely event will occur in the long-run. The technocracy of hazard squirms in the thumbscrews of the safety guarantees which it is forced to impose on itself, and tightened time and again in the mass media spotlight of the bureaucratic welfare state. (Beck, 1995: 1)

Beck does not want to suggest, however, that the media spotlight is allowed to illuminate unopposed; the growing army of public relations officials and experts, or 'the argumentation craftsmen' (Beck, 1992b: 32), of modern industry and the ('provident') welfare state engage in strategies of information management and damage limitation, etc., in their unending battle to ward off the destructive effects of contestable scientific knowledge and compensation claims: 'Normality, i.e. the malleable, protean character of scientific findings jeopardises the business interests that are based on them' (Beck, 1995: 140). Generalizing statements on the mass media such as these, however, remain theoretically underdeveloped as to where exactly the balance of power resides between the 'argumentation craftsmen' and the media, or the factors that will influence the course of mediated presentation and those competing claims for legitimacy and public acceptance. Beck's key point though, is that in today's 'risk society', and against a rising tide of social expectations and felt uncertainty, the media are positioned to perform a critical surveillance role.

The system of institutionally heightened expectations forms the social background in front of which — under the close scrutiny of the mass media and the murmurs of the tensely attentive public — the institutions of industrial society present the dance of the veiling of hazards. The hazards, which are not merely projected onto the world stage, but really threaten, are illuminated under the mass media spotlight. (Beck, 1995: 101)

It is clear from the statements above, then, and others scattered across Beck's writings that ideas of 'risk society' are theoretically predisposed to privilege the mass media as a key site in the social construction, social contestation and, further, the social criticism of, or social challenge to, risks and the deficiencies of institutionalized responses to these. Beck's social theory inevitably leads to the theoretical identification of the mass media,

alongside fora of science, politics and the law, as a crucial domain in which processes of social definition take place — processes that are increasingly central in an era where scientific and other knowledge claims are thought to have progressively lost their aura, credibility and predictive power to control the unprecedented nature of contemporary risks. Beck's formulation rightly places the mass media centre frame with respect to social processes of claims-making and contestation.

Pitched at the widest possible level of theoretical abstraction and generalization, however, Beck's ideas though suggestive demand empirical support. Processes of social construction, contestation and challenge cannot, a priori, be assumed to characterize the functioning of an undifferentiated mass media, nor do such statements offer much by way of explaining the exact mechanisms, social relationships and differentials of power informing their practices and those interdependencies and dynamics existing between the fora of, inter alia, science, politics, law and the media — to name only the most obvious sites of social definition and contestation. The problems do not remain at the level of insufficient empirical detail alone, however.

Ontology to epistemology: media revelation or media representation?

The relatively abstract, and generalizing, quality of Beck's statements on the media may well in part be a function of his overarching conceptualization of 'risk society', but the problem arguably goes deeper than the 'failure' to put specific empirical flesh on abstract theoretical bones. At the heart of Beck's discussion is a tendency to conflate and/or argue inconsistently from either an ontological or epistemological premise with regard to the nature of 'risks', and in consequence to conflate and/or present inconsistent views on the mass media and how they represent the nature of these risks. Ontologically Beck knows that risks, though often invisible or imperceptible (e.g. radioactivity, some pollutants, biogenetic releases) are actual, threatening and waiting to wreak havoc and catastrophe: 'The piece cannot be dropped from reality's programmes because the hazards themselves are there to stay, and running the show' (Beck, 1995: 101)

... the global experiment of nuclear energy (toxic chemistry) has by now taken over the roles of its own critics, perhaps even more convincingly and effectively than the political counter-movements could ever have managed on their own. This becomes clear not only in the world-wide, unpaid negative advertising at peak times and on the front pages of papers, but also in the fact that everyone between the Alpine chalets and the North Sea mud

flats now understands and speaks the language of the nuclear critics. (Beck, 1992a: 115)

In other words, the capacity of hazards to unmask themselves, to become socially visible, is taken to confirm the nature of those risks and verify our knowledge of them — these are essentially beyond social contestation and dispute. True, Beck is aware of the particular circumstances that must obtain before the mediated revelation of hazards can take place (see below), but if these are in place the media can play the important role of unveiling such hazards. Further, this is seen to be relatively straightforward, with the media performing directly and transparently an act of revelation — revealing the true nature of risks. Reference to post-Chernobyl above, simply confirms the correctness of lay knowledge of such risks.

The oppositional power of the unintended revelation of hazards depends of course on overall social conditions, which so far have been fulfilled in only a few countries: parliamentary democracy, (relative) independence of the press, and advanced production of wealth in which the invisible threat of cancer is not overridden for the majority of the populace by acute undernourishment and famine. (Beck, 1992a: 116)

This position of ontological (in)security, seemingly confirmed by a succession of media revelations, however, can be contrasted to another take on media portrayal of risks, one that is now informed by epistemological uncertainty, given the 'invisible' nature of many risks and the contested status of surrounding scientific and other knowledge about them and their consequences. Or, as Beck has whimsically put it, "To beef or not to beef that is the question"!

Even the right to freedom of the press, with all its opportunities and problems of interpretation, offers numerous occasions for the differentiation of large and partial public spheres (from the global television network to the school newspaper) with individually very particularized, but overall considerable opportunities to influence the definition of social problems. These are limited and checked by the material conditions on the production of information and the general legal and social conditions. But they can also achieve considerable significance for the public — and thus the political — perception of problems, as the political boom of environmental issues and the rise and fall of social movements and subcultures illustrate. (Beck, 1992b: 196)

Here a more differentiated understanding of the mass media is offered, a view that nonetheless suggests that together the media can influence political perceptions *and* also the less than even rise and fall of social

movements — including the environment. Now emphasizing epistemological considerations the media are, apparently, granted a different, more independent role in constructing *representations* of environmental crises.

Finally, Beck's ontological/epistemological slippage produces statements that appear to want to hold onto the objective nature of risks, while recognizing the role played by the media in visualizing these and rendering them perceptible — a position of critical realism perhaps.⁶

The universality of hazard elevates the critique into a spokesperson for everybody. The critique also opens up markets and opportunities for economic expansion. All this gives the mass media a leading role in sounding the social alarm — so long as they dispose of the institutionally guaranteed right to select their own topics. What eludes sensory perception becomes socially available to 'experience' in media pictures and reports. Pictures of tree skeletons, worm-infested fish, dead seals (whose living images have been engraved on human hearts) condense and concretize what is otherwise ungraspable in everyday life. (Beck, 1995: 100)

While each of these positions has much to commend it in our approach to the mass media and its 'representations' (Hackett, 1985; Cottle, forthcoming), it is not entirely clear which Beck favours, or that the inconsistency of seeking to incorporate all of them is fully recognized. As stated, this perhaps reflects a more deep-seated philosophical slippage in Beck's covering social theory; the consequences for his views of the media are unhelpful insofar as the mechanisms and institutional linkages involved in the construction of such representations of risks thereby become indistinct, and the operations of social and cultural power clouded.

Mediating scientific and social rationality

Beck's views on the media seem to have imported a wider philosophical slippage from his wider social theory. His ideas on 'reflexivity' when applied to the mass media also appear underdeveloped, importing theoretically uneven views on scientific and social rationality. By 'reflexive modernization' Beck means the 'self-confrontation with the consequences of risk society which cannot (adequately) be addressed and overcome in the system of industrial society' (Beck, 1996: 28). He further seeks to distinguish between two stages of 'reflexive modernization'. The first referring to the unintended and latent side-effects that must be confronted (as a 'reflex') in the course of industrial modernization, and the second to those more self-conscious ('reflective') responses to such processes which now become the object of political, academic and public

discourse (Beck, 1994: 5–7; Beck, 1996: 27–8). In this second stage, Beck's 'reflexivity' thus tends to assume a more self-conscious and rationalistic aspect; specifically, 'Risks deepen the dependency on experts' (Beck, 1997a: 123). When applied to the mass media no wonder, then that Beck's view of 'reflexivity' is inclined to bring to the forefront processes of expert and countering-expert debate and the dialogue surrounding the uncertainties of science and expert knowledge — these, after all, are part of the endemic process of *radicalizing modernity*.

Hazards are produced by business operations, to be sure, but they are defined and evaluated socially — in the mass media, in the experts' debate, in the jungle of interpretations and jurisdictions, in courts or with strategic-intellectual dodges, in a milieu and in contexts, that is to say, to which the majority of workers are totally alien. We are dealing with 'scientific battles' waged over the heads of the workers, and fought instead by intellectual strategies in intellectual milieux. (Beck, 1992a: 112–13)

Statements such as this remain opaque however. Is Beck saying that risk definition and assessment is open to social evaluation (based on 'social rationality') in such fora as the mass media, or is he saying — because of the inherent nature of contemporary 'risks' — people are dependent upon scientists and expert knowledge ('scientific rationality') and cannot engage in such 'scientific battles' conducted in 'intellectual milieux'? Clearly, the perceived role of the media will vary enormously depending upon which of these is being entertained. Often statements endorse, apparently, a position of lay dependency on scientists.

The immediacy of personally and socially experienced misery contrasts today with the intangibility of threats from civilization, which only come to consciousness in scientized thought, and cannot be directly related to primary experience. These are the hazards that employ the language of chemical formulas, biological contexts and medical diagnostic concepts. (Beck, 1992b: 52)

But there again, Beck observes how the 'voices of the "side effects"' do not lose their 'cognitive sovereignty' entirely:

What scientists call 'latent side effects' and 'unproven connections' are for them their 'coughing children' who turn blue in the foggy weather and gasp for air with a rattle in their throat. On their side of the fence, 'side effects' have *voices, faces, ears* and *tears*. . . . Therefore people themselves become small, private alternative experts in risks of modernization. . . . The parents begin to collect data and arguments. The 'blank spots' of modernization risks, which remain 'unseen' and 'unproven' for the experts, very quickly take form under their cognitive approach. (Beck, 1992b: 61)

Further, Beck also maintains that lay and expert perspectives, social and scientific rationalities, are not impervious to each other, but must be viewed as potentially interpenetrating.

The growing awareness of risks must be reconstructed as a struggle amongst rationality claims, some competing and some overlapping. One cannot impute a hierarchy of credibility and rationality, but must ask how, in the example of risk perception, 'rationality' *arises socially*. . . . In the process, one can pursue the questions: what systematic sources of mistakes and errors are built into the *scientific* perception of risks, which only become visible in the reference horizon of a social risk perception? And conversely, to what extent does the social perception of risks remain dependent on scientific rationality, even where it systematically disavows and criticizes science, and hence threatens to turn into a revitalization of pre-civilizational doctrines? (Beck, 1992b: 59)

Once again the reader is seemingly presented with differing 'takes' on the monopoly, or loss of monopoly, of scientific knowledge within risk assessment — each of which, in the context of the mass media and their representations, sounds plausible. What is needed is a more detailed examination of what, exactly, is going on. Fortunately, findings from mass communication research may be able to throw some light on this. First though, it is also worth mentioning that Beck's comments on 'social rationality', though clearly differentiated from 'scientific rationality' in terms of its socially contextualized view of 'efficiency', 'progress', 'risk assessment' and explicit normative ideals and informing political values, can nonetheless also be found wanting. His view of 'social rationality' arguably tends towards an overly rationalistic and cognitive, and insufficiently cultural and hermeneutic approach.

Brian Wynne, based on his analysis of the interactions between Welsh sheep farmers and scientists following the fall-out from Chernobyl, has commented for example:

. . . a central part of the reflexive process of lay discomfort, alienation and distance from expert knowledges and interventions is not the purely rational-calculative one which Beck and Giddens conceive as the driving force of reflexive modernity. It is the more thoroughly hermeneutic/cultural one in which alien and inadequate tacit models of the human are imposed on lay publics through the discourse of 'objective' science in such potent fields as environmental risk management and regulation. (Wynne, 1996: 59–60)

To be fair, insofar as Beck addresses questions of 'social rationality' and also critiques the technicist, instrumental and industrial rationality underpinning the nature of scientific practice, Wynne's observation is

overstated. Nonetheless, he is right to point to the cultural and hermeneutic dimension informing lay responses to science and its public representations — a dimension relatively undeveloped in Beck's account of social rationality. Science, according to Wynne, often seeks to impose 'individualist, instrumental, essentialistic and decisionistic models of the human' (Wynne, 1996: 60). If social and cultural assumptions and values are thereby implicated within scientific debate and practice, it also suggests that the concerns of science cannot automatically be assumed to be above (or beyond) the intellectual horizons of ordinary people; further, it highlights the possible importance of the interplay between scientific forms of knowledge and more cultural and hermeneutic ones — lay knowledge cannot, as is so often assumed, be taken to be epistemically vacuous (see also Coleman, 1995). Given the commercial and competitive underpinning to the mass media, as well as their constitutive role within popular culture, it is likely that their representations of risk and 'scientific battles' may deliberately be framed in terms that resonate with ordinary concerns and popular culture.

Empirical examination of the mass media and its portrayal of the environment and patterns of access, for example, has found in terms of voices represented and their forms of involvement a wider range of responses across the rationalistic-hermeneutic, scientific-cultural, expert-lay, analytic-experiential continuums than may have been predicted from an overly rationalistic view of reflexivity informing a view of the mass media (Cottle 1993a, 1993b, 1994, 1997). Also, from the foregoing, the category of the 'expert' is thus itself problematized and need not simply be assumed to be coincident with institutional sources of professionalism — a point already made by Beck. We may be interested in pursuing further, though, how exactly the 'expert' becomes constituted and signified within certain milieux, including those of the mass media (see Livingstone and Lunt, 1994: 92–132).

Cultural symbolism

Though Beck's ideas on reflexivity and competing social and scientific rationalities can be challenged as insufficiently cultural and hermeneutic, he is not blind to the intimate relationship between the media and surrounding culture, nor how this benefits the environment as a potential candidate for media exposure and social critique. He notes, for example, the cultural hold over the media and their practices of 'value conservatism' or the value of preservation that seeks to check uninhibited industrialism.

Thus whoever argues and demonstrates against legalized 'normal' poisoning need not fight, as if in a second French revolution, for the victory of the principles that are supposed to change the world. . . . Ecological journalism does not thereby defend any partisan interests, but only the common good; and moreover, at its most sensitive spot, the highly legitimated values of health and life in a medically fit, secular society with its endless succession of market-led fitness and nutritional crazes. Herein lies the reason for the attentiveness of the mass media, and not in the media *per se*. (Beck, 1995: 99–100)

The finding that 'ecological journalism' taps into a surrounding typification of the environment as a cultural good, and thereby enjoys increased media coverage and interest has been well established in the literature (Lowe and Morrison, 1984). No doubt its mainsprings go back to the intellectual traditions of romanticism if not earlier, and it also resonates with the change from traditional to modern, rural to urban societies and the critique of industrialism that this spawned — critiques often premised upon a romanticized image of the rural idyll as an earlier, more communal and less alienated way of life. Beck's contribution here, perhaps, is to underline the peculiar nature of contemporary risks as, for the most part, literally and/or geographically invisible. It is here that the media — television specifically (and photo-journalism too) — help to visualize and symbolize risks and their actualized consequences.

The cultural blindness of daily life in the civilization of threat can ultimately not be removed; but culture 'sees' in symbols. The images in the news of skeletal trees or of dying seals have opened people's eyes. Making the threats publicly visible and arousing attention in detail, in one's own living space — these are cultural eyes through which the 'blind *citoyens*' can perhaps win back the autonomy of their own judgement. (Beck, 1992a: 119–20)

In the context of the media this is a point well made, but can the mediated cultural resonance of the environment be pursued a little further? Cross-culturally, for example, Hansen has pointed to differing 'cultural climates' in the UK and Denmark and how the strong Social Democratic tradition characteristic of labour–industry relations in Denmark led to the comparative prominence of worker/work-related environmental news coverage (Linné and Hansen, 1990). A recent comparative study of India and UK media representations of the environment has also demonstrated, unsurprisingly perhaps, how discourses of 'development' within India have subsumed environmental concerns as such (Chapman et al., 1997). An American Cold War political culture was found to have influenced the reporting of Chernobyl in the USA with 'the superiority of American

technology disconnected from the risks such technology had just as obviously brought the Soviets' (Patterson, cited in Hansen, 1991: 452). A comparative study of UK television news programmes has demonstrated how these, in fact, are remarkably divergent in their selection and treatment of environmental issues according to their conventionalized forms and cultural appeals to audiences — appeals that vary across the 'serious-popular' and 'international/national-regional/local' news continuums (Cottle, 1993a). Studies of lay responses to scientific expertise and authorities have demonstrated how these interactions invariably are informed and mediated by the contingencies of local knowledge, traditions, customs and culture (Irwin and Wynne, 1996; McKechnie, 1996); findings similar to those of audience reception studies of environmental media coverage which have also identified local, cultural and other contingencies mediating environmental understanding and concern (Corner et al., 1990a, 1990b; Burgess, et al., 1991; Burgess and Harrison, 1993; Corner and Richardson, 1993).⁷ The interaction of journalists and scientific experts has also been studied in relation to the professional cultures of each, and how these produce relations of cooperation and conflict informing media representations (Linné, 1993; Hansen, 1994; Peters, 1995). Hansen has also discussed how some environmental issues and problems, such as nuclear and radiation-related issues, 'benefit' from especially culturally deep-seated imagery, suggesting that not all risks thereby activate the same degree of cultural resonance and media exposure (Hansen, 1991; see also Corner et al., 1990a, 1990b).

On all these, and other, 'cultural' fronts issues of cultural symbolism and resonance can be pursued with further precision and help take us deeper into an appreciation of why and how environmental and other risks are structured within media discourses and representations. Incidentally, studies of audience reception attending to the symbolic nature and cultural appeals of environmental portrayal have arguably also helped take us into a deeper cultural/hermeneutic understanding of 'reflexivity' than Beck's comments on social rationality discussed above (Corner et al., 1990b). In summary, Beck's statements on the cultural resonance of the environment remain underdeveloped and have yet to incorporate findings and discussion of, *inter alia*, cross-cultural differences including national political cultures; the romanticized and historically informed opposition between the urban and the rural; the cultural and hermeneutic dimension of reflexivity; the local and cultural contingencies informing media reception; the cultural milieu of media professionals and their sources; the differing degrees of symbolic potency attached to certain issues and

'risks'; and the differentiated cultural forms and audience appeals of the mass media and how these select, shape and frame 'risks'.

Institutional and discursive 'relations of definitions'

Beck has usefully formulated his interest in the mass media in relation to the 'relations of definitions' contesting the public discourses on risks, and thereby points to the complexities involved, including those relating to the institutional, discursive, normative, cultural, political and epistemological. His writings remain conspicuously silent, however, on the institutional field in which 'relations of definitions' compete for public recognition and legitimation. We have heard how the 'risk society' understandably identifies 'experts' and scientists as perhaps the key players contesting the intellectual high ground of 'risks' and their consequences. But who, exactly, these 'claims-makers' are, how they relate to each other institutionally, professionally, politically, and what information strategies and rhetorical moves they deploy while advancing their contending claims for public consent and legitimacy is surely worthy of further theorization and empirical examination (Hansen, 1991; Hannigan, 1995).⁸

The literature on claims-making, rightly, has influenced a number of researchers working on environmental and risk communication but does not appear to have informed Beck's thinking to any great extent. In consequence, his own theoretical 'claims' with respect to the array and nature of the voices securing media access remain relatively blunt and sociologically underdeveloped. For example, though ideas of 'primary definers' (Hall et al., 1978) have recently come under theoretical and empirical assault (Schlesinger, 1990; Anderson, 1991, 1993; Miller, 1993; Miller and Williams, 1993), they at least have the virtue of identifying structural and institutional linkages between the mass media and other institutional centres of power — linkages that can be examined and that promise to help explain the 'hierarchies of credibility' (Becker, 1967) and the differential forms and opportunities of media access granted by the mass media to contesting environmental voices and interests (Deacon and Golding, 1994).

Schlesinger's oft-rehearsed critique is also particularly relevant, when he notes how the primary definer thesis doesn't take account of: (1) the contention between official sources; (2) the behind the scenes influences of sources, rendered invisible methodologically by culturalist readings of texts; (3) the competitive and shifting nature of key sources *within* privileged elites; (4) the longer term shifts in the structure of access; and (5) how it also assumes the *unidirectional* flow of definitions from power

centres to media (Schlesinger, 1990: 66–7). Such sociological criticisms are incisive and point to the necessity for careful theorization and empirical analysis of source–media interactions (often from the source point of view) and how these ‘relations of definitions’ inform media representations (Schlesinger and Tumber, 1994) and often involve strategies of ‘enclosure’ and ‘disclosure’ (Ericson et al., 1989). When explicitly theorized different fora or ‘public arenas’ and their interrelationships and interdependencies prove highly relevant for an understanding of both routine and catastrophe media communications (Hilgartner and Bosk, 1988; Linné and Hansen, 1990), and point to the complex temporal dynamics and institutional relationships involved in processes of agenda-building and agenda-setting. The discussion above also identified some of the ways in which national cultures impact upon environmental concerns and the public perception of risks; a related institutional argument can also be made. Insofar as the ways in which the media and source fields are organized differently in different national contexts, and are informed by differing professional cultures, so they can also be found to impact differently upon risk communications (Mormont and Dasnoy, 1995).

If empirical sights are further focused, the micro-politics of agenda-shifting and institutionalized norms of ‘turn-taking’ within media genres and, specifically, interview contexts, for example, could also usefully be brought into view as could the range and determinations of news formats — each helping to illuminate the complexities of mediated risk communication (Greatbatch, 1984; Heritage and Greatbatch, 1993; Cottle, 1995). Staying with the nature of the public discourses deployed, the identification of ‘symbolic packages’ (Gamson and Modigliani, 1989), as well as the use of rhetorical idioms, motifs, images, archetypes and moral grounds for action within ‘claims-making’ (Hannigan, 1995), all point to a further level of discursive complexity that has yet to be integrated into Beck’s generalizing views of the media and which could help illuminate how, exactly, social and scientific rationalities are played out in and across media representations.

It is perhaps the lack of attention granted to the interrelationship between different relevant fora of ‘risk’ — politics, the media, science, the courts — and how, together, their different endeavours mutually inform the practices of the others, that is most surprising given Beck’s declared interest in processes of reflexive modernization. Surely these institutional responses to the changing nature of society are prime exemplars of institutional ‘reflexive modernization’? Also surprising, given Beck’s expressed interest in the field of subpolitics, is the lack of serious attention granted to the pursuit of media access and public legitimacy by

new social movements and pressure groups. The difficulties that must be overcome including possible lack of institutional resources and networks, possible lack of public legitimacy or credibility, and the strategies, tactics and symbols deployed by these in their efforts to secure media attention (and their associated costs) are also, of course, very much part and parcel of claims-making activity and demand thorough examination (Lowe and Morrison, 1984; Anderson 1991, 1993; Cracknell, 1993; Hansen 1993a). Here too, then, Beck's work has yet to engage with the complexities of institutional interdependencies and claims-making processes already identified by research. Or, to put it another way, 'where's the beef?' Beck's work demands and deserves support from detailed empirical case studies of communicated risk.

Catastrophic society

Beck's view of 'risk society' is essentially catastrophic; we are living on the 'volcano of civilization' in which exceptional conditions threaten to become the norm — it is as if Chernobyl, or perhaps a worst-case scenario of bovine spongiform encephalopathy (BSE) in the UK, exemplifies his understanding of 'risk society'.

Catastrophes that touch the vital nerves of society in a context of highly developed bureaucratic safety and welfare arouse the sensationalist greed of the mass media, threaten markets, make sales prospects unpredictable, devalue capital and set streams of voters in motion. Thus the evening news ultimately exceeds even the fantasies of counter cultural dissent; daily newspaper reading becomes an exercise in technology critique. (Beck, 1992a: 116)

Beck talks of a catastrophic 'risk society' in which the scale and magnitude of the risks are such that civilization is permanently and seemingly ineluctably under threat. Beck has strong grounds to warrant his chosen focus of concern, but is this sufficient to recast our view of society? To put it another way, is it not also the case that environmental problems and other risks encompass less than the globally catastrophic? Those more mundane, low level, small-scale, local and less than life-threatening concerns are also very much the stuff of environmental discourse and media representation. Indeed, the cultural resonance of the environment, as discussed, is such that in combination with the growing populist nature of the media (including the television news media) we are all bombarded daily with a never-ending stream of images and ideas, protests and celebrations, that endorse an environmental sensibility.⁹

This more quotidian involvement with the environment, and its

perpetual representation within, for example, the local news media, indicates a more complex and nuanced relationship between people and Beck's 'civilization of threat'. This point is in sympathy with Lash and Urry's championing of their view of 'aesthetic reflexivity': 'what we want to add is the importance of aesthetic "expert systems", of the use of film, quality television, poetry, travel and painting as mediators in the reflexive regulation of everyday life — these point to a set of aesthetic "life goods" in high (or post) modernity' (Lash and Urry, 1994: 54). Though certainly underresearched, the role of local media in environmental communication and involvement within local processes of environmental awareness and concern suggests that people may be responding to Beck's 'civilization of threat' in more complex, and possibly locally and culturally contingent ways (Burgess, 1990). John Urry's recent work on the 'Romantic Tourist Gaze' and the visual consumption of physical environments, for example, is highly pertinent to an appreciation of how the mass media, among other disseminating systems, provide prevalent (non-catastrophic) cultural representations which can feed environmental sensibilities (Urry, 1992) — and which may 'work' at a less rational/cognitive and more aesthetic/hermeneutic level. All this points to the need for a more careful, empirically focused, examination of media practices and representations of risk than Beck has so far acknowledged. This is not to say, however, that Beck fails to acknowledge the geographical reach — from the local to the global — of the mass media or, following his interest in overarching themes of 'individualization' and 'detraditionalization', the media's increasingly privatized nature and position within the private sphere.

Media of private sphere or subpolitics?

Beck also presents us with a television ontology, developing a view of the constitutive role played by television in everyday life, and how this relates to wider environmental concerns. Television is thought to position us as individuated viewers, consuming standardized, increasingly globalized, programming while nonetheless opening up new vistas for private contemplation — a formulation in many respects redolent of Williams's earlier 'mobile privatisation' (Williams, 1974: 26).

Television isolates *and* standardizes. On the one hand, it removes people from traditionally shaped and bounded contexts of conversation, experience and life. At the same time, however, everyone is in a similar position: they all consume institutionally produced television programs, from Honolulu to Moscow and Singapore. The individualization — more precisely, the removal from traditional life contexts — is accompanied by a uniformity and standardization of forms of living. Everyone sits isolated even in the

family and gaps at the set. . . . Through the media we lead a kind of *spatial and temporal double life*. We are at one and the same time here and somewhere else. . . . These sorts of emerging life situations seem to display an *individual and institutional schizophrenia* in their 'bilocality'. (Beck, 1992b: 132–3)

With respect to the environment this fairly pessimistic outlook on television as one of standardized, individuated private consumption appears, nonetheless, to hold some progressive hope.

The private sphere is not what it appears to be: a sphere separated from the environment. It is the *outside turned inside and made private*, of conditions and decisions made elsewhere, in the television networks, the educational system, in firms, or the labor market, or in the transportation system, with general disregard of their private, biographical consequences. Anyone who does not see this misunderstands an essential and basic characteristic of social ways of living in the phase of advanced modernity, the overlapping and networking of the emerging individualized privacy with the seemingly separate areas and production sectors of education, consumption, transportation, production, the labor market, and so on. (Beck, 1992b: 133)

I take the thrust of Beck's argument here as saying that individual biographies, following upon detraditionalization and the creation of global media networks, are now not only dependent upon complex social networks affecting life chances and circumstances and position individuals with increased opportunity to be self-reflexive in relation to these, but also enable/allow individuals to participate in single-issue (sub-political) concerns. On securing access to the media such emergent collectivities are said to wield political power:

The 'heads' of the political system are confronted by co-operatively organized antagonists, with a 'definition-making power' of media-directed publicity, and so on, which can essentially codetermine the change and agenda of politics. (Beck, 1992b: 194)

In the absence of detailed discussion of the more complex interactions between new social movements and the media referenced above, such statements read as empirically naive. Not that Beck is unaware of countervailing tendencies bearing down on subpolitics and the role of the media. His television 'bilocality' presents both an opportunity and a danger: though exposed to the possibility of 'long-distance morality', individuals may become apathetic in response to excessive media demands placed upon them (see also Tester, 1994, 1995). Also, though the increasingly individualized society (and 'unbinding' of conventional politics) lends itself to single-issue politics and movements, the media is thought capable of performing a steering role in relation to these.

The individualized society prepares the ground for new and *multi-faceted conflicts*, ideologies and alliances, which go beyond the scope of all hitherto existing schematizations. These alliances are generally focused on single issues . . . The resulting so-called structure is susceptible to the latest social fashions (in issues and conflicts) which, pushed by the mass media, rule the public consciousness just as spring, autumn, and winter fashion shows do. (Beck, 1992b: 101)

Profound ambivalences (some might say 'ambiguities') thus inform Beck's views on the media and their contribution to the private sphere, subpolitics and single-issue movements.¹⁰ Insofar as the reality of late modernity is itself contradictory and exhibits these, and other, ambivalences it would be unfair to criticize the messenger; on reading Beck, however, one can't help but feel that one way out of the theoretical impasse is to engage with more conceptual precision and more empirical examination of some of the processes and tendencies described.

A similar conclusion can be reached in relation to his views on the media in relation to the public sphere of formal politics and government. Here we learn that though the media 'possibly produce or exacerbate inarticulateness, isolation, even stupidity, there still remains an actual or potential monitoring function which media-directed publicity can perform with regard to political decisions' (Beck, 1992b: 193) and, further, 'The consequence for politics is that reports on discoveries of toxins in refuse dumps, if catapulted overnight into the headlines, change the political agenda. The established public opinion that the forests are dying compels new priorities' (Beck, 1992b: 197). To reintroduce one last ambivalence, however, we have already read of the media 'dance of the veils' performed by the 'provident state' and businesses keen to conceal the 'true' nature of risks and catastrophes, given their legal and compensatory responsibilities and/or business interests. Whether the media actually perform a revelatory and critical function in relation to business and state responsibilities for 'risks' and can affect political change, or whether they are susceptible to (dis)information management strategies designed precisely to defuse, or even dissimulate, the nature of risks, is difficult to fathom from Beck's contradictory statements. Of course, we might want to argue that the media, in fact, are perfectly capable of performing both these and other roles and functions in the field of risk communications and other fields, and may have good grounds for arguing so (Wolfsfeld, 1997). The point here, though, is that any theory worth its salt must surely take as its starting point the multiple and complex relations between the media and the field of 'risks' and seek

to register and grapple (conceptually, empirically, methodologically, theoretically) with the difficulties and contingencies involved.

Profound 'ambivalences', according to Beck and other social theorists, characterize the nature of late modernity; this should not exempt us from pushing the analysis as far as we can before settling for what, in the context of the mass media, reads as relatively abstract oscillation. With respect to the mass media, more can be said, and more is known than is indicated in Beck's formulations. That said, there is no doubting the importance afforded to the media by Beck, and he clearly signals his view that the media, potentially, are a crucial means by which political processes (perhaps 'the reinvention of politics'; Beck, 1997a) can be advanced.

... the democratization of criticism that becomes possible in risk society implies that the necessary attentiveness and clarity of criticism in the interplay of government and opposition will falter if at the same time criticism, even radical criticism, does not prove its principles and expand its footing in the public mass media. (Beck, 1997a: 147)

Unfortunately, his relatively schizophrenic view on the mass media and underdeveloped analysis of their formal operations do not, for the time-being at least, furnish any grounds for helping to actualize such political prescriptions.

Conclusion

Ulrich Beck's social theory of risk society and reflexive modernization is breathtaking in its intellectual scope and ambitions. It offers us a powerfully articulated vision of the forces that now appear to be driving history and how we might want to reconceptualize our relation to these. Ideas of 'risk society' appear to speak to so much that we witness going on around us that it would be difficult, not to say foolhardy, to dismiss them out of hand; they simultaneously challenge and provoke us to rethink the *exceptional* nature of our times. While some may want to draw back from instituting the nature of contemporary 'risks' as *the* theoretically *defining* and *explanatory* characteristic (or *quasi-agency*) of late modern societies and find, in consequence, the concept of 'risk society' burdened with too much theoretical weight, it seems to me that Beck is right to draw attention to the historically novel and potentially catastrophic effects of 'manufactured uncertainty'. And he is also surely right to signal the important position occupied and performed by the mass media within the field of risk communications.

This article has not sought to engage critically with Beck's entire

theoretical edifice, and nor has it done justice to the complexities to be found therein. Rather, sights have focused more modestly on his views of the mass media, and a critical exposition of these has been presented. To recap: the mass media have been found to be theoretically positioned as occupying a key position and performing various roles within 'risk society' and the communication of hazards. Beck's discussion of the mass media has, however, been found to be uneven, underdeveloped and often contradictory. Given the expressed importance attached to the media in 'risk society' this is surprising and cannot be overlooked simply in terms of the marginality of the media to Beck's treatise. As indicated, the media are theoretically positioned by Beck centre frame within his theory and granted a key role within his 'relations of definitions'.¹¹

Identifying the mass media as an important domain for the social construction and social definition of, as well as the social challenge to, 'risk society', his ideas resonate with the interests of mass communication researchers pursuing the social and discursive processes involved in the social construction and representation of 'social problems'. Though highly promising, on closer inspection Beck's ideas on the media appear to have incorporated an ontological/epistemological slippage that renders his understanding of the actual social processes involved in relation to the representation of 'risks' indistinct. Competing ideas on the role and involvement of 'social rationality' and 'scientific rationality' within public discourse and the mass media have also rendered their respective contributions to the political and cultural contestation of knowledge about risks unclear. Ideas of cultural symbolism, and the role of culture more generally, in mediating risks remain underdeveloped; here the richly differentiated nature of the news media and the often locally and culturally contingent nature of their appeals were found to have been overlooked. Important source processes of claims-making and their institutional allegiances and institutional interdependencies — whether between the mass media, politics, science and the law — have been largely ignored insofar as the operation and interactions of the mass media are concerned, leading to a sociologically blunt (and ahistorical) description of the surrounding 'risk' field and its media involvement. Beck's essentially catastrophic view of society, though necessary, is less than comprehensive and, as such, has arguably left him partially blinded to the more quotidian coverage of everyday risks and concerns. Finally, the ambivalences informing Beck's discussion of media involvement within both public and private spheres and subpolitics has rendered his views demanding of further theoretical elaboration, conceptual precision and empirical support.

None of the above should be taken to undermine the relevance of Beck's social theory for mass communication researchers in the future. Beck is operating at a relatively abstract, and necessarily generalizing, level of *macro*-theorization. His theory has identified broad areas of relevance for mass communication researchers — researchers who tend to operate at a more *meso*-level of applied theoretical engagement. In many respects mass communication researchers, as indicated, are empirically ahead of the game — studies of the mass media, their institutional and political linkages, cultural affinities and appeals, and possible roles in building and disseminating risk agendas, images and concerns, have already produced detailed analyses and understanding of key areas identified by Beck as of theoretical interest. Beck's ideas of 'risk society' may yet prove all too relevant, however, and provide a cutting edge of theory for mass communication researchers confronting future media involvement in processes of 'manufactured uncertainty'.

Notes

I would like to thank Caroline New for introducing me to the writings of Ulrich Beck, and Ulrich Beck for writing them.

1. Beck's principal writings referred to in this article are: 'From Industrial Society to Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment', (Beck, 1992a); *Risk Society — Towards a New Modernity* (Beck, 1992b); 'The Reinvention of Politics: Towards a Theory of Reflexive Modernization' (Beck, 1994); *Ecological Politics in the Age of Risk* (Beck, 1995); 'Risk Society and the Provident State' (Beck, 1996); *The Reinvention of Politics: Rethinking Modernity in the Global Social Order* (Beck, 1997a); and 'The Relations of Definitions: Cultural and Legal Contexts of Media Constructions of Risk' (Beck, 1997b).
2. This is not to say, of course, that Giddens's views on globalization, time-space distancing and the disembedding and re-embedding of social relations (Giddens, 1990) have not proved fertile ground for discussion of the contemporary media. See, for example, Tomlinson (1994), Thompson (1995) and Sreberny-Mohammadi (1996).
3. Beck's recent contribution (Beck, 1997b), explicitly focusing upon the mass media, is therefore very welcome. I would also like to thank Ulrich Beck for his good humour when discussing my 'hazardous' (but hopefully not 'toxic') use of his ideas at the 'Media, Risk and the Environment' symposium in Cardiff, July 1997.
4. With few exceptions, Beck's ideas have until recently been more or less ignored by mass communication researchers specializing in the communication of environmental and other risks. This is not to say, of course, that important/interesting work has not been conducted. In addition to the

studies referenced throughout this discussion, see also, for example: Singer (1990), Singer and Endreny (1987), Leiss (1994) and the contributions in *The Mass Media and Environmental Issues* (Hansen, 1993b).

For their part, prominent social theorists of late modernity have managed to ignore the relevant work of mass communication researchers (the recent collection *Risk, Environment and Modernity*, for example, manages to ignore entirely questions of media communications); (Lash et al., 1996). There are signs, however, that this academic divide is beginning, tentatively, to be bridged: the social theoretical ideas of Klaus Eder when discussing media framing of nature have incorporated, for example, the concepts developed in applied mass communication research by Gamson and Modigliani (1989) (Eder, 1996: 162–91); research into mass communication processes relating to Chernobyl by Nohrstedt (1993) has referenced Beck's ideas; and a symposium on 'Media, Risk and the Environment', hosted by the University of Wales, Cardiff, in July 1997, brought together, not before time, mass communication researchers, social theorists including Ulrich Beck, and activists. This article, hopefully, may also help to bridge the divide and encourage theoretically informed *and* empirically rigorous research.

5. Not that Beck's ideas can be accused of simply replacing class positions with risk positions; rather they are often seen as overlapping. The nature of globalizing risks (and their 'boomerang effects'), nonetheless, exhibit universalizing tendencies indiscriminate of class (see Beck, 1992b: 39–44).
6. This ontological/epistemological slippage is also evident within such statements as:

It is not clear whether it is the risks that have intensified, or our *view* of them. Both sides converge, condition each other, strengthen each other, and because risks are risks in *knowledge*, perceptions of risks and risks are not different things, but one and the same. (Beck, 1992b: 55)
7. In this respect, Beck's statement to the effect in 'class positions being determines consciousness, while in risk positions, conversely, consciousness (knowledge) determines being' (Beck, 1992b: 53), fails to ground processes of consciousness in relation to, inter alia, the complex and overlapping social, cultural and political 'positions' of 'being' that inform processes of knowledge acquisition and response.
8. To be fair, Beck does identify basic political moves deployed in the field of risk communication including 'the denial of risks' and 'a phony trick: acceptable levels' (Beck, 1992b: 62–9), and notes how 'the instruments of *definitional* risk "management" are being sharpened' (Beck, 1992b: 45), these remain underdeveloped however; for more detailed examination of strategies of information management we can usefully turn to studies of political communication (Deacon and Golding, 1994; Franklin, 1994; Negrine, 1994; McNair, 1995) and the relevant discussion of the 'transformation

of visibility' brought about by the mass media (Thompson, 1995: 119–48).

9. In a recent passage Beck does move nearer to acknowledging the intimate relationship between everyday life and the communication of risks, but fails to run with the consequences of this in terms of its implications for the accessing of 'ordinary voices' within media representations, the local framing of risks and the experiential bases of opposition to scientific/instrumental rationality possibly informing their presentation:

Laboratory science is systematically more or less blind to the consequences which accompany and threaten its successes. The public discussion — and illustration! — of dangers, on the other hand, is related to everyday life, drenched with experience and plays with cultural symbols. It is also media-dependent, manipulable, sometimes hysterical and in any case devoid of a laboratory, dependent in that sense upon research and argumentation, so that it needs science as an accompanist. (Beck, 1997a: 123)
10. In addition to relevant studies referenced earlier, the recent attention by mass communication researchers to the private sphere and the consumption of domestic-based technologies of communication also provides relevant theoretical discussion and, often, importantly, empirically informed analyses of the processes involved. See, inter alia, Bausinger (1984), Lodziak (1986), Morley (1986), Scannell (1988), Morley and Silverstone (1990), Silverstone (1990) and Silverstone and Hirsch (1994). Though not possible to pursue here, these arguably take us into a deeper appreciation of the complexities informing processes of domestic-based audience response and consumption than Beck's 'ambivalences'.
11. Nor can Beck's relative empirical neglect of the mass media be accounted for in terms of the theoretically abstract nature of his theory in general. Careful reading of Beck's writings indicates that he has made various use of empirical findings and discussion — for example in relation to the changing nature of the family and industrial practices.

References

- Anderson, A. (1991) 'Source Strategies and the Communication of Environmental Affairs', *Media, Culture and Society* 13(4): 459–76.
- Anderson, A. (1993) 'Source–Media Relations: The Production of the Environmental Agenda', pp. 51–68 in A. Hansen (ed.) *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Bausinger, H. (1984) 'Media, Technology and Daily Life', *Media, Culture and Society* 6(4): 344–50.
- Beck, U. (1992a) 'From Industrial Society to Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment', *Theory, Culture and Society* 9: 97–123.
- Beck, U. (1992b) *Risk Society — Towards a New Modernity*. London: Sage.

- Beck, U. (1994) 'The Reinvention of Politics: Towards a Theory of Reflexive Modernization', pp. 1–55 in U. Beck, A. Giddens and S. Lash (eds) *Reflexive Modernization*. Cambridge: Polity Press.
- Beck, U. (1995) *Ecological Politics in the Age of Risk*. Cambridge: Polity Press.
- Beck, U. (1996) 'Risk Society and the Provident State', pp. 27–43 in S. Lash, B. Szerszynski and B. Wynne (eds) *Risk, Environment and Modernity*. London: Sage.
- Beck, U. (1997a) *The Reinvention of Politics: Rethinking Modernity in the Global Social Order*. Cambridge: Polity Press.
- Beck, U. (1997b) 'The Relations of Definitions: Cultural and Legal Contexts of Media Constructions of Risk', unpublished paper presented at the symposium 'Media, Risk and the Environment', University of Wales, Cardiff, 3–4 July.
- Beck, U., A. Giddens and S. Lash (eds) (1994) *Reflexive Modernization*. Cambridge: Polity Press.
- Becker, H. (1967) 'Whose Side are We On?', *Social Problems* 14: 239–47.
- Burgess, J. (1990) 'The Production and Consumption of Environmental Meanings in the Mass Media: A Research Agenda for the 1990s', *Transactions, Institute of British Geographers*, NS15: 139–61.
- Burgess, J. and C.M. Harrison (1993) 'The Circulation of Claims in the Cultural Politics of Environmental Change', pp. 198–221 in A. Hansen (ed.) *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Burgess, J., C.M. Harrison and P. Maiteny (1991) 'Contested Meanings: The Consumption of News about Nature Conservation', *Media, Culture and Society* 13(4): 499–520.
- Chapman, G., K. Kumar, C. Fraser and I. Gaber (1997) *Environmentalism and the Mass Media: The North–South Divide*. London: Routledge.
- Coleman, C.L. (1995) 'Science, Technology and Risk Coverage of a Community Conflict', *Media, Culture and Society* 17(1): 65–79.
- Corner, J. and K. Richardson (1993) 'Environmental Communication and the Contingency of Meaning: A Research Note', pp. 222–33 in A. Hansen (ed.) *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Corner, J., K. Richardson and N. Fenton (1990a) 'Textualizing Risk: TV Discourse and the Issue of Nuclear Energy', *Media, Culture and Society* 12(1): 105–24.
- Corner, J., K. Richardson and N. Fenton (1990b) *Nuclear Reactions: Form and Response in 'Public Issue' Television*. London: John Libbey.
- Cottle, S. (1993a) 'Mediating the Environment: Modalities of TV News', pp. 107–33 in A. Hansen (ed.) *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Cottle, S. (1993b) *TV News, Urban Conflict and the Inner City*. Leicester: Leicester University Press.
- Cottle, S. (1994) 'Stigmatizing Handsworth: Notes on Reporting Spoiled Space', *Critical Studies in Mass Communication* 11(4): 231–56.

- Cottle, S. (1995) 'The Production of News Formats: Determinants of Mediated Contestation', *Media, Culture and Society* 17(2): 275–91.
- Cottle, S. (1997) 'May the News Viewer Safely Graze? A Critical Examination of Expert and Lay Knowledge in Environmental News Discourse', paper presented at the Symposium 'Media, Risk and the Environment', University of Wales, Cardiff, 3–4 July.
- Cottle, S. (forthcoming) 'Analysing Visuals: Still and Moving Images', pp. 189–224 in A. Hansen, S. Cottle, R. Negrine and C. Newbold (eds) *Mass Communication Research Methods*. Basingstoke: Macmillan.
- Cracknell, J. (1993) 'Issue Arenas, Pressure Groups and Environmental Agendas', pp. 3–21 in A. Hansen (ed.) *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Deacon, D. and P. Golding (1994) *Taxation and Representation*. London: John Libbey.
- Eder, K. (1996) *The Social Construction of the Environment*. London: Sage.
- Ericson, R.V., P.M. Baranek and J.B.L. Chan (1989) *Negotiating Control: A Study of News Sources*. Milton Keynes: Open University Press.
- Franklin, B. (1994) *Packaging Politics*. London: Edward Arnold.
- Gamson, W.A. and A. Modigliani (1989) 'Media Discourse and Public Opinion on Nuclear Power', *American Journal of Sociology* 95: 1–37.
- Giddens, A. (1990) *The Consequences of Modernity*. Cambridge: Polity Press.
- Goldblatt, D. (1996) *Social Theory and the Environment*. Cambridge: Polity Press.
- Greatbatch, D. (1984) 'Aspects of Topical Organisation in News Interviews: The Use of Agenda-shifting Procedures by Interviewees', *Media, Culture and Society* 8(4): 441–55.
- Hackett, R.A. (1985) 'Decline of a Paradigm? Bias and Objectivity in News Media Studies', pp. 251–74 in M. Gurevitch and M.R. Levy (eds) *Mass Communication Review Yearbook*. London: Sage.
- Hall, S., C. Critcher, T. Jefferson, J. Clarke and B. Roberts (1978) *Policing the Crisis*. London: Macmillan.
- Hannigan, J.A. (1995) *Environmental Sociology — A Social Constructionist Perspective*. London: Routledge.
- Hansen, A. (1991) 'The Media and the Social Construction of the Environment', *Media, Culture and Society* 13(4): 443–58.
- Hansen, A. (1993a) 'Greenpeace and Press Coverage of Environmental Issues', pp. 150–78 in A. Hansen (ed.) *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Hansen, A. (ed.) (1993b) *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Hansen, A. (1994) 'Journalistic Practices and Science Reporting in the British Press', *Public Understanding of Science* 3: 111–34.
- Heritage, J. and D. Greatbatch (1993) 'On the Institutional Character of Institutional Talk: The Case of News Interviews', pp. 93–137 in D. Boden

- and D. Zimmerman (eds) *Talk and Social Structure*. Cambridge: Polity Press.
- Hilgartner, S. and C.L. Bosk (1988) 'The Rise and Fall of Social Problems: A Public Arenas Model', *American Journal of Sociology* 94(1): 53–78.
- Irwin, A. and B. Wynne (eds) (1996) *Misunderstanding Science? The Public Reconstruction of Science and Technology*. Cambridge: Cambridge University Press.
- Lash, S. and J. Urry (1994) *Economies of Signs and Space*. London: Sage.
- Lash, S., B. Szerszynski and B. Wynne (eds) (1996) *Risk, Environment and Modernity*. London: Sage.
- Leiss, W. (1994) 'Risk Communication and Public Knowledge', pp. 127–39 in D. Crowley and D. Mitchell (eds) *Communication Theory Today*. Cambridge: Polity Press.
- Linné, O. (1993) 'Professional Practice and Organization: Environmental Broadcasters and their Sources', pp. 69–80 in A. Hansen (ed.) *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Linné, O. and A. Hansen (1990) *News Coverage of the Environment: A Comparative Study of Journalistic Practices and Television Presentation in Denmark's Radio and the BBC*. Danmarks Radio: Research Report No. 1B/90.
- Livingstone, S. and P. Lunt (1994) *Talk on Television: Audience Participation and Public Debate*. London: Routledge.
- Lodziak, C. (1986) *The Power of Television: A Critical Appraisal*. London: Francis Pinter.
- Lowe, P. and D. Morrison (1984) 'Bad News or Good News: Environmental Politics and the Mass Media', *The Sociological Review* 32(1): 75–90.
- McKechnie, R. (1996) 'Insiders and Outsiders: Identifying Experts on Home Ground' pp. 126–51 in A. Irwin and B. Wynne (eds) *Misunderstanding Science? The Public Reconstruction of Science and Technology*. Cambridge: Cambridge University Press.
- McNair, B. (1995) *An Introduction to Political Communication*. London: Routledge.
- Miller, D. (1993) 'Official Sources and "Primary Definition": The Case of Northern Ireland', *Media, Culture and Society* 15(3): 385–406.
- Miller, D. and K. Williams (1993) 'Negotiating HIV/AIDS Information — Agendas, Media Strategies and the News', pp. 126–42 in J. Eldridge (ed.) *Getting the Message*. London: Routledge.
- Morley, D. (1986) *Family Television: Cultural Power and Domestic Leisure*. London: Comedia.
- Morley, D. and R. Silverstone (1990) 'Domestic Communication — Technologies and Meanings', *Media, Culture and Society* 12(1): 31–55.
- Mormont, M. and C. Dasnoy (1995) 'Source Strategies and the Mediatization of Climate Change', *Media, Culture and Society* 17(1): 49–64.
- Negrine, R. (1994) *Politics and the Mass Media*. London: Routledge.
- Nohrstedt, S.A. (1993) 'Communicative Action in the Risk Society: Public Relations Strategies, the Media and Nuclear Power', pp. 81–104 in A.

- Hansen (ed.) *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Peters, H.P. (1995) 'The Interaction of Journalists and Scientific Experts: Cooperation and Conflict Between Two Professional Cultures', *Media, Culture and Society* 17(1): 31–48.
- Scannell, P. (1988) 'Radio Times: The Temporal Arrangements of Broadcasting the Modern World', pp. 15–31 in P. Drummond and R. Patterson (eds) *Television and its Audience*. London: British Film Institute.
- Schlesinger, P. (1990) 'Rethinking the Sociology of Journalism: Source Strategies and the Limits of Media Centrism', pp. 61–83 in M. Ferguson (ed.) *Public Communication: The New Imperatives*. London: Sage.
- Schlesinger, P. and H. Tumber (1994) *Reporting Crime*. Oxford: Clarendon Press.
- Silverstone, R. (1990) 'Television and Everyday Life: Towards an Anthropology of the Television Audience', pp. 173–89 in M. Ferguson (ed.) *Public Communication: The New Imperatives*. London: Sage.
- Silverstone, R. and E. Hirsch (eds) (1994) *Consuming Technologies: Media and Information in Domestic Places*. London: Routledge.
- Singer, E. (1990) 'A Question of Accuracy: How Journalists and Scientists Report Research on Hazards', *Journal of Communication* 40(4): 102–16.
- Singer, E. and P. Endreny, (1987) 'Reporting Hazards: Their Benefits and Costs', *Journal of Communication* 37(3): 10–26.
- Sreberny-Mohammadi, A. (1996) 'The Global and the Local in International Communications', pp. 177–203 in J. Curran and M. Gurevitch (eds) *Mass Media and Society*, 2nd edn. London: Edward Arnold.
- Tester, K. (1994) *Media, Culture and Morality*. London: Routledge.
- Tester, K. (1995) 'Moral Solidarity and the Technological Reproduction of Images', *Media, Culture and Society* 17: 469–82.
- Thompson, J. (1995) *The Media and Modernity*. Oxford: Polity Press.
- Tomlinson, J. (1994) 'A Phenomenology of Globalization? Giddens on Global Modernity', *European Journal of Communication* 9(2): 149–72.
- Urry, J. (1992) 'The Tourist Gaze and the "Environment"', *Theory, Culture and Society* 9: 1–26.
- Williams, R. (1974) *Television: Technology and Cultural Form*. London: Fontana.
- Wolfsfeld, G. (1997) *Media and Political Conflict: News From the Middle East*. Cambridge: Cambridge University Press.
- Wynne, B. (1996) 'May the Sheep Safely Graze? A Reflexive View of the Expert–Lay Knowledge Divide', pp. 44–83 in S. Lash, B. Szerszynski and B. Wynne (eds) *Risk, Environment and Modernity*. London: Sage.