

Moral panic versus the risk society: the implications of the changing sites of social anxiety

ABSTRACT

This paper compares moral panic with the potential political catastrophes of a risk society. The aim of the comparison is threefold: 1. to establish the position of risk society threats alongside more conventional moral panics; 2. to examine the conceptual shifts that accompany the new types of threats; and 3. to outline the changing research agenda. The paper suggests that as new sites of social anxiety have emerged around environmental, nuclear, chemical and medical threats, the questions motivating moral panic research have lost much of their utility. Conceptually, it examines how the roulette dynamics of the risk society accidents expose hidden institutional violations that redound into 'hot potatoes' that are passed among and fumbled by various actors. Changing conceptions of folk devils, claims making activities, and of a safety are also discussed.

KEYWORDS: Moral panic; risk society; social anxiety; social constructionism; disproportionality; accident

Moral panic has enjoyed a good run in the sociology of deviance, where it acquired a special affinity with youth-related issues. This paper suggests that the sociological domain carved out by moral panic is most fruitfully understood as the study of the sites and conventions of social anxiety and fear. Researchers select particular crises to investigate, and thereby ignore others. But societies change, as do the phenomena associated with outbreaks of public concern or alarm. As new crises accumulate and become more visible, they are likely to find their way on to the research agenda. This paper examines new sites of social anxiety that have emerged alongside moral panics. These are best captured by Beck's (1992) concept of a 'risk society'. The paper, then, compares the elements and conditions of moral panic with those of the '*political potential of catastrophes*' bred in a risk society (Beck 1992: 24; italics in original). The aim of the comparison is

threefold: 1. to establish the position of risk society threats alongside more conventional moral panics; 2. to examine the conceptual shifts that accompany the new types of threats; and 3. to outline the changing research agenda, including the identification of gaps characteristic of moral panic research.

THE IDEA OF MORAL PANIC

Consider Cohen's classic definition

Societies appear to be subject, every now and then, to periods of moral panic. A condition, episode, person or groups of persons emerges to become defined as a threat to societal values and interests; its nature is presented in a stylized and stereotypical fashion by the mass media; the moral barricades are manned by editors, bishops politicians and other right-thinking people; socially accredited experts pronounce their diagnoses and solutions; ways of coping are evolved (or more often) resorted to; the condition then disappears, submerges or deteriorates and becomes more visible. (Cohen 1972: 9)

Unfortunately, this definition is cited so frequently that readers are apt to skip it! Careful perusal of the text reveals that it allows for but does *not* necessitate most of the presumptions and concepts that have accrued to the study of moral panic. Consider the concept of folk devil, which is typically identified with the evil doings of an individual or group of individuals. Cohen's definition, however, encompasses not only 'person or groups of persons' but also 'condition' and 'episode.' The latter, as in the case of the elite panic over swine flu in the USA, do not readily fall under the folk devil rubric. Similarly, nothing in this text necessitates the idea of disproportionality, although the exaggeration of the threat has been a key concern of moral panic researchers (e.g., Jenkins 1998, 1999) and of social constructionists generally (Ungar 1998a).

Since most of the ostensibly critical elements of moral panic are not stipulated by definition, they apparently flow from the (more contingent) procedures and details of Cohen's classic study. In this context, it is probably a sterile exercise to ask what moral panic is 'really about' (cf. Hunt 1997). Instead, the aim here is to open space for the consideration of other social anxieties that do not quite fit the moral panic paradigm. Then these new anxieties will be used to reflect on the nature and limits of the moral panic research.

SOCIAL ANXIETY IN THE RISK SOCIETY

Starting from the mid-1980s on in particular, new social anxieties in advanced industrial societies have built up around nuclear, chemical,

environmental, biological and medical issues (Goode and Ben-Yehuda 1994a: 131–134; Hanmer 1987; Rothman and Lichter 1988; Ungar 1990, 1991, 1992a, 1992b, 1995, 1998a, 1998b). Pertinent examples of these anxieties include the threat of nuclear winter, Three Mile Island, breast implants, various forms of reproductive technology and biotechnology, the ozone hole, the ‘greenhouse summer of 1988,’ the Exxon Valdez, Ebola Zaire, and Bovine Spongiform Encephalopathy (BSE). These new risks have steadily gained greater prominence and created their own issue-attention cycles. For example, 1986 brought, just one year after the surprise discovery of the ozone crater, Chernobyl, the Challenger accident, and toxic pollution of the Rhine River following a chemical fire in Basle, Switzerland. Not surprisingly, ecological concerns rose to the top of the public agenda by the late 1980s (Dunlap and Scarce 1991).

Beck (1992, 1995) subsumes these new sites of social anxiety under the concept of a risk society. While risks are an inevitable consequence of industrialization, Beck claims that the ‘side effects’ produced by late modernization are a new development. As compared to the recent past (and especially prior to the Second World War), these risks have novel impacts that are: 1) very complex in terms of causation; 2) unpredictable and latent; 3) not limited by time, space, or social class (i.e., globalized); 4) not detectable by our physical senses; and 5) are the result of human decisions (cf. Ali 1999). Essentially, the economic gains following from the application of science and technology are increasingly being overshadowed by the unintended production and distribution of ‘bads’. These have gone from being unrecognized, to latent, to globalized, as new types of technology and processes of production, new chemicals, drugs and so on, and new scales of activity combine to accentuate the risks.

According to Beck (1992: 24; italics in original), ‘In smaller or larger increments – a smog alarm, a toxic spill, etc. – what thus emerges in risk society is the *political potential of catastrophes* . . . Risk society is a *catastrophic society*.’ The catastrophic potential of the risk society gives rise to a reflexive orientation, whereby new technologies are subject to increasing scientific scrutiny and public criticism. But despite the greater public involvement and accountability implied by ‘reflexive modernization’ (Beck, Giddens and Lash 1994), side effects remain for the most part unpredictable and incalculable. They are akin to normal accidents, where what has been scientifically ruled out (as either impossible or extremely improbable) predictably occurs (Perrow 1984). With new technologies such as genetic engineering, the scientific procedures for monitoring risks and protecting the public shift from the security of the laboratory to the real world. As society is rendered into a social laboratory, accidents not only come as a surprise but also can provide a crash course in institutional failings.

As this paper is being revised, Canadians are being inundated with news of an E. coli outbreak in Walkerton, Ontario (population = 4,800), that has killed seven people and left 2300 ill.¹ It provides a good example of a risk society accident discussed by Beck. E. coli O157:H7 is thought to be a new

pathogen linked not only to water but to 'hamburger disease' (it may be caused by the overuse of antibiotics in animal feed). The first suspected *E. coli* death was on May 15. The public was warned on May 21. The source of the *E. coli* contamination in Walkerton remains unknown. As the media, environmental groups and opposing political parties forage for information, a host of incriminating institutional failures have emerged and all parties are seeking to avoid carrying the 'hot potato'.

Significant questions (in simplified form) are as follow: 1. Why did it take so long for town authorities to inform the populace of the risk?; 2. Why didn't the laboratory hired to test drinking water alert medical officials? (the pathogen was detected about five days prior to the outbreak; apparently there is no legal duty to do so); 3. Did the closing of all Ministry of the Environment water-testing labs and their privatization in 1996 contribute to the problem?; and 4. Did downsizing of the Ministry of the Environment (about a 40 per cent decrease in budget and 30 per cent in staff) contribute to the outbreak?

With a range of additional questions, four inquiries have been established by the police, the coroner's office, the Ministry of the Environment, and an independent public hearing (the Provincial Government initially repudiated the latter, but bowed to public pressures).² Several class-action lawsuits have also been launched. There have been numerous reports of bacterial and pesticide contamination in other towns, several of which have been ordered to boil their water. Questions are also being raised about long-term effects, since *E. coli* O157:H7 can cause permanent kidney damage, especially in children. Walkerton's tourist industry has been devastated (with conflicting claims over who should bear the costs), and there is a pervasive sense in commentary from rural areas that one can never trust the water again.

COEXISTING ANXIETIES?

How will the rise of such risk society issues affect the occurrence and development of moral panics? A difficulty in addressing this question is a lack of agreement about what is happening with moral panics. McRobbie and Thornton (1995) argue that panics are harder to constitute than they once were. Citing the failed effort to construct a moral panic around single mothers in Britain, they suggest that the proliferation of mass media and the attendant capacity of folk devils to fight back (they are 'less marginalized than they once were') have sharply curtailed the potential for moral panics. In contrast, Thompson (1998: 2) refers to the 'increasing rapidity in the succession of moral panics' and 'the all-pervasive quality of panics that distinguish the current era'. These contradictory claims can be seen in practice in North America. While successful US moral panics have been directed against single mothers and illegal immigrants, efforts to construct

panics around these issues engendered strong resistance in Canada (cf. Eastland 1995).

Fear of crime remains high and seems to be immune to data indicating that crime rates have been falling throughout the 1990s. If fear of crime in particular suggests that panics are not about to be displaced by risk society threats, it may be better to speak of a complementary relationship between the two types of anxieties. Thus Hollway and Jefferson (1997: 258) suggest that fear of crime and risk of victimization must be considered in light of Beck's argument that risk is 'pervasive in late modernity'. They argue that

... fear of crime is a particularly apt discourse within the modernist quest for order since the risks it signifies, unlike other late modern risks, are *knowable, decisionable, (actionable), and potentially controllable*. In an age of uncertainty, discourses that appear to promise a resolution to ambivalence by producing identifiable victims and blameable villains are likely to figure prominently in the State's ceaseless attempts to impose social order (1997: 265; italics in original).

In other words, fear of crime may be a relatively reassuring site for displacing the more uncertain and uncontrollable anxieties of a risk society.

Jenkins' (1999: 8–9) study of designer drugs locates a substantive realm where there are elements of convergence between the two types of social anxiety. What he calls 'synthetic panics' are linked to new technologies and human ingenuity, scientists cast as Dr. Frankenstein, a loss of control, and the creation of 'forbidden knowledge' – all common elements of risk society issues. The latter has also brought a reflexive orientation whereby victims challenge authorities and fight back. Since McRobbie and Thornton (1995) observe a similar resistance by folk devils in moral panic, it appears that relationships between authorities and their publics are becoming more open and less manipulative regardless of the type of social anxiety involved.

COMPARING THE OLD AND THE NEW

To compare the two types of social anxiety, this paper draws on analyses of moral panic because it is a more seasoned concept whose antecedence has allowed time for the systematic formulation of criteria. The most systematic (if at times plodding) historical and theoretical account of moral panic is provided by Goode and Ben-Yehuda (1994a, 1994b). They list 'five crucial elements or criteria' of moral panic: 1. Concern; 2. Hostility; 3. Consensus 4. Disproportionality; and 5. Volatility. The ensuing comparison is guided by their five crucial elements, though the organization of the discussion departs from theirs.

The present analysis focuses on the conceptual shifts that accompany emerging risk society threats and the changing research agenda implied by them. Conceptually, moral panic is linked to a social constructionist

perspective. The main issues addressed in this research concern the exaggeration of the actual threat and the use of panics to engineer social consensus and control. With risk society accidents being highly unpredictable and uncontrollable, the social constructionist concern with exaggeration is largely undermined as an analytic strategy. The roulette dynamics of risk society accidents are also at variance with the model of social control and folk devils used in moral panic research. Instead of authorities and other institutional actors using social anxieties to impose moral order, they can find themselves as carriers of 'hot potatoes'. Methodologically, the risk society points to an array of new questions and throws into relief some faulty research assumptions and procedures found in moral panic studies.

THE ISSUES OF CONCERN/CONSENSUS

That heightened concern is a prerequisite for panic is true by definition. Beyond this truism lies a morass of problems. These are rendered manifest through an examination of changes in the types of social issues that form the sites of social anxiety (cf. McRobbie 1994: 216). Moral panic has always been conceptualized narrowly (as seen in the five criteria listed above), and thereby encompasses only a small number of the subset of social problems that fall in the domain of deviance – and even more specifically, youth deviance. Hence panics could be designated as 'time-to-time' events, something, like witch hunts, that are more exceptional than ordinary.³ In contrast, claims about the potentially fearful events associated with a risk society are far more ubiquitous. Indeed, with some exaggeration, Beck (1992: 36–7) claims that, 'Where everything turns into a hazard, somehow nothing is dangerous anymore.' The risk society is characterized, in other terms, by a stream of emergencies and would-be emergencies.

Just as Simmel demonstrated that a shift in group size from two to three or more members had qualitative implications, so too do the dissimilar sites and pools of issues affect all elements of the analysis of social anxiety. Moral panic is constituted by a relatively small pool of mostly familiar threats, or variations on a theme. The risk society is constituted by a vast number of relatively unfamiliar threats, with new threats always lurking in the background. When occasional problems are supplanted by a burgeoning pool of contending 'catastrophes', all aspects of claim-making are rendered more open, variable, and problematic. In this section I discuss two conceptual issues – models of panic creation and the status of failed panics – and one methodological issue – questions about the depth and extensiveness of public concern.

Models of Panic Creation

Research on moral panic generally takes a top-down approach to claim-making. According to McRobbie (1994: 199), moral panic boils down to

‘instilling fear in people and, in so doing, encouraging them to turn away from complexity and the visible social problems of everyday life and either to retreat into a “fortress mentality” – a feeling of helplessness, political powerlessness and paralysis – or to adopt a gung-ho “something must be done about it” attitude.’ Theoretical sociological interest in the concept, then, devolves around notions of social regulation, manipulation by the powerful, and deviance amplification.

Risk society issues do not generally fit a top-down model. If responses to nuclear reactors are prototypical, panics appear to require some catalytic real-world event that is given direction by interest groups and carried forward by elements of the informed public, often as part of social movement organizations (Ungar 1990, 1992b). Significantly – this will be elaborated below – political authorities and large actors often find themselves the target of such activities and have encountered strong resistance in their efforts to influence long-term public opinion (e.g., Rothman and Lichter 1987).

From a social constructionist perspective, claims making pertaining to moral panics can derive more from a shift in moral boundaries than either the objective standing of a condition or new evidence (Hannigan 1995: 38). Moreover, claims may be about valence issues (these are one-sided issues, as in hard drug use) or involve relatively disproportionate power on the contending sides, as folk devils are pitted against better-organized and more powerful groups. With the risk society, issues tend to be warranted more by scientific findings or claims, with scientists, for all their public liabilities, playing a central role in the cast of claims makers. Given scientific uncertainties, the likelihood that the media’s attempt to strike an equilibrium will be greater for ‘factual’ than for moral claims (Gans 1995: 40), and the chance that the powerful will find themselves targeted, a more equal balance of power between rival claims makers is anticipated with risk issues.

In short, moral panic has conventionally focused on social control processes aimed at the moral failing of dispossessed groups. Risk society issues tend to involve diverse interest groups contending over relatively intractable scientific claims. However, the former have come closer to the latter as diverse media and attention to a broader range of voices allow folk devils to contest the setting of moral boundaries. Social regulation processes, in other words, have become less predictable and more fractious.

Failed Panics

At the extreme, one could contend that knowledge about moral panics is fundamentally tainted. Virtually all of the research involves retrospective studies of panics which were ‘deemed’ authentic. But in the absence of comparable examples of unsuccessful efforts, conclusions about key variables and processes amount to asserting that what transpired (more or less) had to. Thus it is usual to attribute panics to broader social, economic or political strains, but no effort is made to determine whether these

subterranean dissatisfactions have existed for extended periods of time without provoking panics. In this regard, research comparing successful and unsuccessful panics over nuclear weapons suggests that the role of claims makers may be overstated while the import of real-world events and an agitated public understated (Ungar 1990, 1992b).

Claims making to no effect is much more transparent for risk society issues. In this case, the pool of potential catastrophes closely mirrors Hilgartner and Bosk's (1988) ecology of competition for scarce attention in different public arenas. Given scientific uncertainty, frequent invisibility, and the rival claims making about issues that are often unfamiliar and complex, it is very difficult to bring attention to many issues. A key process here involves crossovers, where issues jump from one arena to another and potentially create a 'whirlwind' of attention (Ungar 2000). Efforts to follow the passage of issues across arenas more often than not lead to a dead end. Here I consider one example, which throws into relief differences created by risk society issues.

A number of scientific books and conferences, as well as numerous papers, have raised the alarm over the worldwide tendency for frogs to be deformed or to 'disappear' (Phillips 1994; Sounder 1999). For scientists, frogs, with their thin membranes that allow them to live on both land and water, are regarded as a potential early warning signal for some as yet unspecified environmental changes. Far less than half of these scientific reports make the passage into popular science arenas – both magazines and Internet sites that give specialized attention to scientific issues.⁴ The next step in the chain is usually the *New York Times*, which can serve as a critical diffusion point to other mass media outlets (Mazur and Lee 1993). Computer searches, however, reveal only a handful of articles on frogs in this American paper of record. Beyond that, the issue all but disappears, as popular magazines, several other newspapers, and the three major US television networks largely ignore the problem. Frogs, as several scientists have observed, are not easy to sell.

Until recently, methodological problems made it extremely difficult to follow the passage of issues across different arenas. Thus claim making at community levels or at the base of social movement organizations remains relatively invisible to most social research, especially when data are collected from the national mass media or conventional polling samples used by Gallup and the like. But since risk issues are usually articulated first (or very early on) by scientists, both jumps and blockages at crossover points can be systematically studied with the use of computer indexes and the Internet.

Tapping Into Public Concerns

One key crossover involves the spread of fear among broad elements of the general public. Definitions of moral panic all stipulate that 'overheated periods of intense concern' or 'explosions of fear' must be relatively

widespread among the public. A surge of public concern implies that an issue is 'in the air' (Mazur 1981). This metaphor suggests that the 'attentive' public is not only aware of the issue but is sufficiently alarmed that they discuss it. However, personal worries and agitated conversations leave few traces. Even community meetings tend to be invisible a step beyond their immediate venue. An issue may be percolating among members of the public, but the concerns are still more likely to fizzle than to foam upwards.

The classic specimen of moral panic – witch hunts – largely obviates the problem of measuring outbreaks of public concern. The use of the pillory during witch crazes – atrocity tales, burning, drowning and so on – affords *prima facie* evidence of public involvement (e.g., Briggs 1996). Overall, behavioural indicators – anti-nuclear demonstrations, community protests against the release of convicted child abusers, or the drop in British beef sales during the BSE scare – are preferred. Unfortunately, direct behavioural evidence is often lacking or difficult to come by.

Here again there appears to be an important difference between the two types of social anxieties. While research on moral panics infrequently draws on poll results (Beckett 1994; Thompson 1998: 121–2), some risk society threats like Ebola and nuclear reactors have generated more specific data on public reactions (e.g., Moeller 1999: 80–95; Rothman and Lichter 1987).⁵ In this context, both Ebola and nuclear reactors evoked 'hot crises' that threatened to explode around us (Ungar 1998b). Still, there is not sufficient evidence to know whether people are consumed with anxiety about risks in their environment (cf. Furedi 1997) or have adopted Jane Austin's attitude to the Battle of Waterloo: 'How dreadful that so many poor fellows have been killed, and what a blessing that one cares for none of them.'

With moral panic in particular, researchers have finessed the problem by employing indirect and questionable indicators of public concern. Most common is the use of coverage in the mass media as a surrogate for public concern.⁶ Yet a large number of studies of agenda-setting report weak effects that are consistent with Gamson and Modigliani's (1989) conclusion that media attention and public opinion constitute parallel but *distinct* systems of meaning. Another ostensible measure of public concern is legislative activity on an issue (Goode 1989). However, research on agenda setting indicates that the relationship between political activity and public concerns is weak and contingent (Kingdon 1995). That is, both policy proposals and policy changes are largely determined by institutional contingencies and activities specific to the policy domain.

Both media coverage and legislative activity involve actors several steps removed from the general public. While public opinion polling would appear to furnish more direct and cogent measures of public concerns, polls typically occur too infrequently to catch the dramatic soar and slump cycles of issues that make it in the air (Ungar 1994). Moreover, the questions used in polls tend to be too limited to tap into intense outbreaks of concern that verge on or encompass fear.⁷ Indeed, since the radar image

of public opinion is of such low resolution, politicians and other claims makers have become adept at manipulating these results for their own purposes.⁸

Catching waves of public concern remains a difficult task. However, researchers can get closer to the action. Over the last decade, at least two alternative media have emerged through which public concerns can be accumulated and amplified. The first is talk radio. In an interesting study, Page and Tannenbaum (1996) first show that the mainstream media and public officials reacted with complacency when it was discovered that Zoe Bard, President Clinton's nominee for attorney general of the USA, had knowingly hired illegal aliens. In contrast to this downplaying of the story, radio talk show hosts across the country were inundated with public outrage. This, coupled with calls to senators' offices, resulted in media defections and elite retreat. According to the authors

Our main point is that a relatively autonomous popular uprising – based on the bare facts of the case as reported on TV, and reinforced by hearing fellow citizens' anger on talk radio – overcame the complacency of Washington officials and media elites, changed public discourse, and overturned Bard's sure-thing confirmation. (Page and Tannenbaum 1996: 43–44)

Effectively, talk radio is a 'blunt instrument' capable, under some conditions, of allowing the voices of ordinary citizens to be amplified and heard.

The second alternative medium for voice amplification is the Internet. Whereas talk radio is mediated by the moderator (and perhaps sponsors, etc.), Internet home pages, bulletin boards and chat groups are only limited by that proportion of the public with computer access. This medium is otherwise ideal for catching waves of concern as it operates in real time. Following the May 1995 outbreak of Ebola Zaire, a Lycos search of the *World Wide Web* revealed at least 150 sites with related information (Ungar 1998b). Ongoing, real-time searches of the Internet during the mad cow scare commencing in March 1996 resulted in the location of 100s of news articles, home pages and chat groups. These varied from lengthy and complicated scientific debates to meat-substitute recipes to vitriolic rhetoric directed, over time, at different targets (see below). By late May to early June 1996, there was a precipitous drop in interest in the topic in all sources excepting scientific ones.

Finally, it may be possible to use extant findings about media practices to locate a 'signature' of public concern. According to Sandman (1994: 254; italics in original), '*Alarming content about risk is more common than reassuring content or intermediate content – except, perhaps, in crisis situations, when the impulse to prevent panic seems to moderate coverage.*' Since this moderation effect has been found for AIDS, nuclear accidents, and Ebola (Ungar 1998b), evidence of media moderation appears to afford a better indicator of outbreaks of public concern that simple counts of media coverage.

Tracking public concerns by means of the methods listed above willy-nilly is more difficult than counting media coverage or relying on poll results. Rather than drawing inferences from a single source or indicator, investigators are asked to look for clusters of cohering evidence. A further difficulty is that the use of talk radio and the Internet is facilitated by real-time rather than retrospective research, since the 'data' may simply disappear. But then researchers interested in what are often short-lived outbursts of concern ought to adopt a firehouse approach.

THE ISSUES OF HOSTILITY/VOLATILITY

According to Goode and Ben-Yehuda (1994a: 33; italics in original), 'not only must the condition, phenomenon, or behaviour be seen as threatening, but a clearly identifiable group or segment of society must be seen as *responsible* for the threat'. If this criterion is not mandated by Cohen's definition, neither do these authors uphold it invariantly. Thus they allow that

Some threatening or supposedly threatening conditions which qualify according to the criterion of disproportionality lack the 'folk devil' element – for instance, the swine flue scare that took place in the United States in the 1970s. (op. cit.: 40)⁹

By the same criterion, they also admit concern over nuclear energy. More problematic than this definitional slippage, however, is the circumscribed conceptual approach to the creation of folk devils.

For the most part, folk devils have been identified as youth or other dispossessed groups who are the target of moral outrage due to their 'evil activities' that threaten core values of society. But instead of regarding folk devils as givens, a risk society perspective suggests that their creation is best seen as a *foraging* process, an essayed induction that must take hold. As unforeseen side effects, manufactured hazards seem to generate a greater diffusion of blame, with multi-faceted targets that can include governments, corporations, and other institutions. As Beck (1992: 33) asks, 'Who will take the hot potato: the authorities, science or politics? But they do not till the soil, after all. So it is the farmers? But they were squeezed by the EEC. . .' From a moral panic perspective, both the recently noted tendency for folk devils to fight back and the idea of failed panics are consistent with a foraging model.

Observations from several risk society accidents indicate that the hostility is indeed multi-faceted and volatile. With the Exxon Valdez, enmity was first directed against Captain Hazelwood. It then moved to the oil company, as claims about its cleanup efforts were discredited. Finally, government institutions were subject to the public pillory, as evidence emerged that promised safeguards were never established. Similar volatility can be seen in the BSE scare. A sample of more than 200 articles

downloaded from the Internet revealed floating blame over a three week period. Initially, hostility was directed against British farmers. Then the British government carried the hot potato as claims of a cover-up emerged. Finally, the European Economic Union became the primary target when it instituted a ban on British beef exports.

Conceptually, the shift in social control processes and in the nature and targets of social reactions are probably the most significant sociological developments associated with the risk society. With moral panic, authorities either play a central role in initiating panics or are likely to join ongoing proceedings and derive some benefit from legitimating and perhaps directing them. In the roulette dynamics characteristic of manufactured accidents – ‘accidents’ is used as a shorthand to cover actual mishaps, as well as claimed mishaps or claims about potential mishaps – authorities typically forfeit their commanding role and may become the target of moral outrage. Rather than amplifying the threat, they usually try to dampen it.

In what follows, I argue that roulette dynamics are deeply embedded in the relevant institutions and technologies of modernism and hence cannot be eradicated by more prudent actions or improvements in risk communication. Indeed, faulty communication can be regarded as a congenital consequence of institutional arrangements, rather than a free-floating problem that can be solved on its own (cf. Powell and Leiss 1997).

Uncertainty and unpredictability are at the core of the risk society. New technologies, especially what Beck (1995: 20) terms ‘mega-technologies’, involve complex systems or interactions that cannot be adequately tested in laboratories or by computer simulations. Rather, their unanticipated consequences can *only* be discovered *after* they are implemented. Effectively, they must be tested in a societal laboratory (Tenner 1996). This shift from pre-market to post-market evaluation means that the ‘scientific’ discovery of side effects often corresponds with the social birth of a new and unsettling threat.¹⁰ A safety model is being replaced by a post-market coping model.

Such after-the-fact discoveries serve to undermine the role of what Beck terms ‘public guardians’. Indeed, the latter often find themselves playing a game of roulette with collective safety. To overcome resistance to new technologies – resistance can be strong enough to block implement, as illustrated by genetic manipulation of food in the European Union – guardians of public safety must engage in discourses of reassurance, varying from the presentation of esoteric scientific figures to eating a hamburger at a press conference. Since evidence indicates that the public wants an absolute yes/no answer to questions about risk (Ali 1999; Powell and Leiss 1997: 20), guardians work with contradictory dynamics that require them to provide ‘no-risk’ assurances that are unfounded and cannot, realistically, be founded.

To make matters worse, the demands put on public guardians include not only resistance to some new technologies, but concerted demands for

rapid access to others. 'Access-on-demand' has been especially promoted by AIDS activists, and drug cocktails are now widely used before they receive the conventional stamp of scientific safety (Epstein 1996). Similarly, the immensely popular diet pills, Redux and Fenfluramine, were demanded at any cost by a weight-conscious public (Lemonick 1997: 58). Now that post-market testing indicates that they may cause degeneration of heart valves, a legal stampede for compensation is underway. Consistent with the foraging for folk devils in a risk society, fingers have been pointed at the US Food and Drug Administration, the drug companies, doctors and clinics that dispensed them, and the media for hyping them as 'magic bullets'.

Accidents, then, predictably occur, though the site of the mishap is typically unknown until after events happen. That is, most new technologies come with (highly uncertain) scientific warnings, and only after-the-fact is the real risk obvious.¹¹ For the most part, public authorities encounter the accident as a 'whoops' experience. Past reassurances are rendered inoperative, and a sense of perplexity becomes manifest as inexperience in risk communication (accidents are still relatively rare) is coupled with events that often unfold in unpredictable ways. In Beck's (1995: 47) terms, 'Helplessness is the real revelation of our times'. While it is now fairly obvious that experts 'don't know either' when dealing with nuclear reactor or other mega-technology accidents, even small scale accidents can engender helplessness and a sense of immobility.

One of Canada's worst toxic accidents, the 1997 plastics fire in Hamilton, Ontario, revealed cascading uncertainties: it was not clear what level of government ought to assume primary responsibility for managing events; there was no inventory of the chemicals on site; far more chemicals were being stored than legally allowed; official advice fluctuated sharply in the first few days, and the evacuation of nearby residents was delayed; and, finally, no one had any idea of what the interacting affects of the burning chemicals might be (Ali 1998). Assurances notwithstanding, many fire-fighters were soon sick and some hospitalized.

In the aftermath of the immediate crisis provoked by an accident, rainbow coalitions of victims, oppositional scientists, sympathetic journalists, labour unions and other organizations often create moral outrage by prying open hidden institutional behaviours and violations (Lidskog 1996). Rule violations, of course, are normal, inevitable and predictable features of institutions (Perrow 1984). But when documents, hearings and so on reveal that authorities ignored prior warnings (however uncertain) about a risk situation, they give rise to public surprise or shock, as well as discredit. Thus a sense of betrayal emerged in almost every industrial nation after tainted-blood victims came to learn that the agencies charged with keeping the supply safe invariably opted to 'clear the pipeline' and use up stocks of blood that were suspect.

The exposure and accumulation of oversights, ineptitudes, and violations tends to engender a marauding sense of disbelief and anger. But this is generally different to moral panics, where evil folk devils are usually a

'distinguishable social type' (such as the Mod or the Rocker) whose visibility is the basis of his or her expurgation (Hay 1995: 198).¹² With risk society accidents, the violators are more institutionally-based and somewhat invisible. It is often their routine rather than deviant actions that underlie the problem, and the hot potato tends to be passed among different groups, rather than befall a single disposed one (e.g., Vaughan 1996). The targets of public anger are as likely to be seen as perplexed, vacillating and inept as evil or malign, especially as beleaguered experts search for immediate answers to complex questions in what amounts to a media fish tank. That is, accidents give rise to a need for 'science-on-demand', something that the deliberate process of science can rarely supply (Doern 1999). Rather than serving as a force of social control or cohesion, risk society accidents tend to create 'corrosive communities' as the different actors try to deny their culpability and pass the hot potato (Freudenburg 1997). In this foraging process, public trust is the ultimate victim.

The impacts of manufactured accidents also tend to be more severe and chronic than those associated with moral panics. According to Altheide (1997), the 'problem fame' that has emerged in the media to deal with moral panic-related issues implies that there is 'An Answer' to the problem. The system may be overburdened, but at least something can be done about the situation. Such formulistic solutions, rendered familiar by past variations on the theme, rarely apply to risk society accidents. That is, contamination by modern hazards tends to be more insidious and unbounded. There is an irreducible ambiguity to the harm, as toxic effects can be difficult to identify, take years to manifest themselves, or not appear until the next generation. The ambiguity not only means that it is extremely difficult to sound the 'all clear,' but that 'toxic tort' cases stretch conventional rules of evidence and liability (Grambling and Krogman 1997). The upshot is to create corrosive communities, as demands for admissions of blame and compensation are thrown into the political arena with, all too often, explosive effects.

THE ISSUE OF DISPROPORTIONALITY

Disproportionality has undoubtedly been the central problematic of the moral panic literature. For one, it encapsulates the political agenda motivating this research domain: specifically, the power of moral entrepreneurs to exercise social control by amplifying deviance and orchestrating social reactions so that the panic becomes a consensus-generating envoy for the dominant ideology. Disproportionality is also at the core of the social constructionist approach. According to this perspective, social reactions have little relationship to the ostensible threat or condition (it may be improving even as the panic gets underway), but are largely determined by claims making activities (Ungar 1998a). Finally, exaggerating the threat has also become a reflexive tool, as the media have come to habitually ask whether

politicians are seeking to incite panic or question their own culpability in generating outbreaks of panic (Hay 1995; McRobbie and Thornton 1995).

Disproportionality also commands the bulk of empirical activity, as researchers make Herculean efforts to find the elusive grail of 'objective reality.' Whereas public concern is too often inferred from media coverage, Goode and Ben-Yehuda (1994a: 36–7) 'want to be very careful' and 'acknowledge that determining and assessing the objective dimension is often a tricky proposition'. Hence they go to great lengths to salvage disproportionality and thus save the field from those who suggest that the concept is too value-laden and polemical to be scientifically useful (e.g., Waddington 1986).

But the worst fallout comes not from comparing the scale of the threat with the scale of the response in the realm of deviance, but with the shift to risk society issues

While we agree with Ungar that, with *some* conditions, 'it is impossible to determine the nature of the objective threat' – and therefore, for that condition, to measure the dimension of disproportionality – this is most decidedly not true for many, possibly most, conditions. Threats that are 'future-oriented' and potentially catastrophic, such as the greenhouse effect, the earth's shrinking ozone layer, and the risk of nuclear warfare, in all likelihood, *are* impossible to calculate. (Goode and Ben-Yehuda 1994a: 43; italics in original)

They might well have added that the extreme degree of scientific uncertainty surrounding these types of issues can take years, if not decades, to reduce (e.g., Schneider 1994).

Not surprisingly, perhaps, their efforts to shore up disproportionality lead them into an objectivist position. When they assert that incalculability is not true for 'possibly most' problems, they are implying the existence of a set of known and agreed on threats. But what is at issue is not the quantity of 'real' threats, but those specific conditions that successfully emerge as sites of social anxiety. In the 1990s, 'strange weather', emerging viruses, antibiotic resistance, the possible drop in sperm counts due to 'gender bending' hormone disrupters, as well as BSE and outbreaks of *E. coli* have all been in the forefront of media and (possibly) public concern. So too has terrorism (TWA Flight 800), and the intense anxiety over job security prompted by corporate downsizing ostensibly linked to the competitive demands of globalization. Of these, only TWA Flight 800 comes remotely close to the criteria that Goode and Ben-Yehuda postulate as necessary to demonstrate disproportionality.

If the intractable scientific uncertainties of risk society issues mostly obviate the central moral panic/social constructionist concern with exaggerated threats, the volatility of the former puts a further dent into the idea of disproportionality. Since a hot potato can be handed off several times before it securely befalls a specific target, there is the question of whether

the hostility directed against particular groups or institutions is in fact warranted. Consider the overlapping complexities raised by the Brent Spar. Several months of a Greenpeace-led protest caused Shell Oil to drop plans to sink the oil platform in the ocean. Besides heated debates, hostilities included a consumer boycott of Shell, the landing of activists on the platform, and the firebombing of several Shell installations in Germany. Greenpeace claimed that there were 5,000 tons of oil aboard the Brent Spar, enough to cause severe damage to local ocean life. Shell estimated that there were 53 tons on board. Independent assessors concluded that the platform held between 75 and 100 tons of oil. Following the assessment, Greenpeace apologized for a 'sampling error' that led to the overestimate (Clover 1995). It went on to claim that, 'The campaign we ran against dumping at sea wasn't dependent on any figures.' Yet the independent Norwegian assessors claimed that the pollution aboard the Brent Spar was of 'no environmental significance'. In short, 'science' provides no clear answers, but the powerful can be humbled when the public is aroused and its voice amplified.

Beyond disproportionality – an idea that has long been problematic – risk society issues pose a challenge to the sanctified status of claims making in the creation of social problems. Programmatically, social constructionists prefer to regard all issues as intrinsically the same and to attribute differences in outcomes *primarily* to variations in claims making activities (Koopmans and Duyvendak 1995). Pragmatically, risk society issues tend to acquire a scientific trajectory and accident history that are 'sticky', and thereby constrain the claims that can be viably made by issue entrepreneurs (Ungar 1998a). While a trajectory still allows operatives *some* choices in running a problem, their claim making activities are not nearly as malleable as social constructionists claim, and can engender resistance or turbulence if they try to ignore the sticky history of the problem. Consider a key example (Ungar 1998a).

Scientists customarily define global warming as a future-oriented problem, with effects predominately predicted for the middle or end of the next century. From the start of scientific claims-making in the late 1970s, a future orientation became a definitive characteristic of this problem for numerous and often overlapping reasons. First, the doubling of pre-industrial CO₂ levels will not occur until about 2060. Doubling can be considered a benchmark measure, a binary that is more intuitively clear than claiming that levels have increased by (for instance) 40 per cent. Doubling was also significant because scientists held that their computer models of the climate system were too primitive to deal with smaller changes on a shorter-term basis. At the time, scientists were just beginning to collect the long-term observations that could be used to document climate changes over time. In order to generate concern, the size of impacts delineated in scientific scenarios had to be sufficiently visible on a human scale (e.g., a meter of sea-level rise, rather than a few centimeters) that they would take decades to occur on a natural scale. Finally, since computer models only

predict general tendencies, particular extreme weather events cannot be directly attributed to climate change.

To create social concern over this risk society issue, operatives have tried to reverse this trajectory and to claim that 'strange weather' and other evidence are signs that climate change is already occurring.¹³ But the scientific community stands firmly behind the future orientation, extreme events are largely dissociated from global warming in the media, and claims makers who deny this sticky factor are either ignored or mocked by the media (Ungar 1998a, 1999). In short, claims making on risk society issues is, in comparison with conventional moral panic issues, hedged in by more apparent and sticky issue trajectories, by a more equal balance of power on the part of rival claim makers, and by a comparative absence of distinguishable types of folk devils that evoke deep-seated hostility and fear.

CONCLUSION

The present analysis uses the developments associated with a risk society to throw into relief some blinkers surrounding the moral panic-deviance nexus. For all its pitfalls, one cannot wish away the reality that many sociologists *want* a concept like moral panic as a tool to debunk particular social claims or reactions. Taking a critical posture is not inherently unscientific. Rather, it depends on whether or not observers have sufficiently rigorous evidence to support the contention that *particular* reactions are *patently* unwarranted. For most issues, the requisite evidence has been lacking, and hence sociological pronouncements have not been particularly authoritative.

Social anxieties raise the basic issue of safety. Moral panics, along with earlier industrial risks, were largely contained in a discourse of safety. Moral deviants could be identified (there were 'tests' for witchcraft, with an embedded ambiguity that always rendered it possible to 'find' deviants). The deviants were then, at least theoretically, subject to social control. Indeed, even if social reactions were more symbolic than practical, they could still serve to affirm moral boundaries. And the latter could be effectuated regardless of whether the claims exaggerated the nature of the threat or not.

A safety discourse faces rupture in the risk society. Invisible contaminants, intractable scientific uncertainties, unpredictable system effects, the almost tragic calls for 'science-on-demand' at the height of an accident, the prying open of standard operating procedures, efforts to pass off the hot potato, and potential latency effects that hinder closure of the threat – these all suggest that planning and pre-market testing have been replaced by post-market coping, as things are wont to go boom in the night.

Hindsight notwithstanding, it can be presumed that British authorities had no idea that announcing a tentative link between BSE and 10 possible cases of CJD would touch off a marauding storm. As previously noted, the

public wants unambiguous answers pertaining to risk and safety, especially for phenomena that are involuntarily imposed on them. A safety model that boils down to the post-market coping with accidents is not readily sold to a public whose demands for a yes/no risk evaluation hardly countenances a cost-benefit analysis.

With this case and the accumulation of other comparable manufactured risks, the idea that institutions connote safety is severely challenged. According to Beck (1995: 128)

{T}he political dynamism of the ecological issue is not a function of the advancing devastation of nature; rather it arises from the facts that, on the one hand, institutions claim to provide control and security falls short and, on the other hand, in the same way, devastation is normalized and legalized.

The gap between a safety discourse and the emergent discursive formations and practices built around post-market efforts to cope with emergencies opens up key questions for sociology. These include issues of trust, expertise and authority, the fallibility of science, the nature of (once hidden) institutional practices, the threat of immobility and, ultimately, the affirmation of social order.

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NOTES

1. This summary is based on a careful reading of Toronto newspapers and weekly magazines. It only paints the broad strokes; the detailed ordering of events and miscues remain to be sorted out.

2. The crisis has been so volatile that the Progressive Conservative government in Ontario has backtracked on several issues and adopted an uncharacteristically apologetic and conciliatory tone.

3. McRobbie and Thornton (1995) note that since journalists and other social

commentators have adopted this term, its use is now commonplace but trivial. Journalists, they observe, use moral panic to refer to exaggerated or even falsified threats.

4. The NandoTimes Health and Science site covers up to a dozen new issues daily.

5. Jenkins' (1999) interesting study of designer drugs, for example, focuses on the media, enforcement agencies and Congressional investigations, but simply

ignores public reactions. Hay (1995) insightfully analyses media rhetoric and tactics, but leaves the public as a residual category.

6. According to McRobbie and Thornton (1995: 561), 'Cohen's *Folk Devils and Moral Panics* is rightfully a classic of media sociology . . .'

7. The distinction between intense concern and fear is hardly addressed in the literature (e.g., Goode and Ben-Yehuda 1994a: 33). Since these are primitive concepts, I note but not do pursue the problem.

8. Whereas it would be mistaken to either ignore public reactions as airy fictions or to deem them irresistible, no sense can be made of the BSE scare if we posit the counterfactual, whereby the public did not respond with a surge of anxiety to the tentative government announcement (cf. Hill 1996). High resolution polling is expensive but possible. During the 1995 shutdown of the US government over the budget crisis, Clinton bested the Republicans in part by undertaking daily polling across the nation that allowed him to calibrate his moves to shifting public moods (Morris 1996).

9. The problems of failed panics and tapping into public concerns arise again here. Using Gallup polls results with evidence of public resistance to the vaccination, Garrett (1994: 175) concludes, 'The abstract possibility of a million American flu deaths seems to have caused no collective or individual panic in the United States, except, perhaps, in some corners of government.'

10. Threats may be discovered by the victims of a new technology, whose 'popular epidemiology', grounded in a science of experience, often conflicts with the results of high science.

11. Since BSE was discovered in cows in 1986, and the issue percolated for a decade in a nation noted for its meat-eaters, one might have expected more from authorities than 'there is no risk' eating beef. But water security, clean air, the blood supply, atmospheric conditions and ultimately the climate system are all equally important and have all been the subject of assorted warnings and threats for a decade or longer.

12. Hay (1995: 198 italics in original) observes that the James Bulger case is 'characterized by the *invisibility* of the "folk devil"', since the two ten-year-old children seen leading him away on videotape do not fit the stylized image of folk devils.

13. From the point of view of selling the problem, a future-orientation creates a clear liability. Specifically, concern about the future is discounted in institutional thinking and in virtually every public arena and economic calculation.

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