**CHAPTER SEVEN: RISK**

The chapter is about how individuals in contemporary society engage in the processes of risk perception and assessment, or briefly it is about the social construction of risk.

Until recently, the published literature on risk almost uniformly reflected the belief thatrisks should be ‘objectively’ determined, that this determination was exclusively theprovince of engineers, scientists and other experts and that any failure on the part ofordinary citizens to accept this was considered irrational. Risk assessment was thusconceived of as a technical activity where results were to be formulated in terms of ‘probabilities’.

**Risk and culture**

The first notable challenge to this position (i.e. risk should be objectively determined) came from a British social anthropologist, Mary Douglas, and an American political scientist, Aaron Wildavsky, who published a provocative book in 1982 entitled *Risk and Culture: An Essay on the Selection of Technological and Environmental* *Dangers*.

*Risk and Culture* asks two simple but fundamental questions. Why do people emphasize certain risks while ignoring others? And, more specifically, why have so many people in our society singled out pollution as a source of concern? The answers, Douglas and Wildavsky insist, are embedded in culture. In their view, social relations are organized into three major patterns: the individualist, the hierarchical and the egalitarian. Individualist arrangements are based on the laws of the marketplace while hierarchical relations are epitomized by government bureaucracies. Egalitarian groups are aligned in a ‘border zone’ on the margins of power at the political economic centre of society where the other two modes of social organization are normally located. Egalitarian groups have a cosmology or world-view that is more or less equivalent to the ‘New Ecological Paradigm’ discussed by Catton and Dunlap. Unbridled economic growth is frowned upon, the authority of science is questioned and our boundless faith in technology is declared unwise.

Douglas and Wildavsky’s central thesis is that the perception of risk varies considerably across these three forms of social organization. Market individualists are primarily concerned with the upswing/downturn of the stock market, hierarchists with threats to domestic law and order or the international balance of power and egalitarians with the state of the environment. This leads them to conclude that the selection of risks for public attention is based less on the depth of scientific evidence or on the likelihood of danger but rather according to whose voice predominates in the evaluation and processing of information about hazardous issues. Karl Dake, a member of the Douglas-Wildavsky research circle, has added that “ ….. the point is that world views provide powerful cultural lenses, magnifying one danger, obscuring another threat, selecting others for minimal attention or even disregard. This shows that they are absolute relativists.

Rubin (1994) totally rejects this relativism, arguing that public policy considerations require that we know *definitively* whether risks such as those arising from global warming or ozone depletion are merely foils for the apocalyptic needs of sectarian organizations or genuine threats which must be dealt with. While Rubin’s point is well taken, the ambiguity of many contemporary risks makes it difficult to achieve the certainty that he would like to see. Even if we reject Douglas and Wildavsky’s absolute relativism, nevertheless, the by now widely accepted argument that they make about the subjective and imprecise nature of scientific findings militates against the infallibility of expert opinion. As a society, we still have to make social judgments about the magnitude of risk, although scientific evidence can be one helpful source of information in making these decisions.

Wilkinson (2001) has highlighted the similarities and differences between Mary Douglas and Ulrich Beck, whose ‘risk society’ thesis we examined in Chapter 2. Between them, he observes, ‘they have provided the most detailed theoretical explanations for the social development of a new culture and politics of risk’. Both theorists have chosen to address risk on a societal scale. Both point to the cultural relativity of risk perception and use the arguments of social Constructionism. Neither is tempted to investigate empirically the prevalence of risk or the nature of risk perception. However, they differ as to the ‘reality’ of the risks we face. As we have seen, Beck embraces an apocalyptic vision of the future that is assured unless we engage in a new process of collaboration and social learning. By contrast, Douglas ‘would cast doubt on the credibility of such an alarmist scenario.

**Sociological perspectives on risk**

Sociologists of risk generally adopt a more moderate position than that of Douglas and Wildavsky, insisting that while risk is certainly a socio-cultural construct, it cannot be confined to perceptions and social constructions alone. Rather, technical risk analyses are an integral part of the social processing of risk. Dietz *et al.* (2002) observed, in preparatory work, that the main currents in the sociology of risk have followed three separate but complementary directions which are bound together by an underlying emphasis on the social context in which individual and institutional decisions about risks are made.

First, sociologists have been concerned with the question of how perceptions of risk differ across populations facing different life chances and whether the framing of choices stems primarily from power differences among social actors. Thus, here the emphasis is on how perceptions of risk differ among the local residents, executives of a given manufacturing company and from bureaucrats in the state government and various state agencies which deal with public health and the environment. Similarly, workers and bosses see environmental health risks in the workplace in a different light. To a certain extent, this issue overlaps the social distribution of risk, although the emphasis here is on how social location affects the perception of risk rather than on how it alters the likelihood of being exposed to hazardous conditions.

Second, sociologists of risk have proposed a model that reconceptualizes the problem of risk perception by taking into account the social context in which human perceptions are formed. That is, individual’s perception is powerfully affected by a panoply of primary influences (friends, family, co-workers) and secondary influences (public figures, mass media) which function as filters in the diffusion of information in the community.

Third, risks, especially those of technological origin, have been conceptualized as components of complex organizational systems. This is exemplified in Perrow’s (1984) analysis of ‘normal accidents’ in which an estimated probability of failure is built right into the design of technologies with high catastrophic potential. Once implemented, however, such systems severely limit any further human ability to manipulate risks since the source of the risk is now located in the organization itself.

**Social definition of risk**

Hilgartner (1992) has argued that the constructionist perspective must begin by examining the conceptual structure of social definitions of risk. Such definitions, he maintains, include three major conceptual elements: an object deemed to pose the risk; a putative *harm*; and a *linkage* alleging some causal relationship between the object and the harm.

An initial phase of risk construction, therefore, consists of isolating and targeting the object(s) that constitute(s) the primary source of a risk.

The second element in the social definition of risk involves the process of defining harm. The very definition of what harm ensues from a particular object or action is contested, sparking a variety of claims and counter-claims, despite the fact that there is mutual agreement as to the risk object (forest fires,). Risk claims may frequently conflict on ideational grounds. Thus, a river diversion project which provides irrigation water for local farmers (a human benefit) may result in the destruction of a fragile ecosystem of fish, birds, insects, etc. (a biological harm). Conversely, initiatives that are declared to be of ecological benefit may result in problems for human constituencies. For example, the protection of wolves is advocated by wildlife preservationists but it is keenly opposed by ranchers who fear the loss of livestock crucial to their economic survival. With consensus impossible, the central basis of contestation becomes the presence or absence of harm generated by a risk object.

A third component of the social construction of risk consists of the linkages alleging some form of causation between the risk object and the potential harm. Hilgartner (1992: 42) observes that constructing these linkages is always problematic because a risk can be attributed to multiple objects. Indeed, the ‘laws’ of ecology encourage this since all things are regarded as being interdependent. This is further complicated by the fact that the full extent of the risk may not be known until many years later.

**Arenas of risk construction**

Social definitions of environmental risk must be followed up by political actions designed to mitigate or control the risk that has been identified. Building on the work of Hilgartner and Bosk (1988), Renn (1992) argues that political debates about risk issues, in turn, are invariably conducted within the framework of ‘social arenas’.

The term *social arenas* is a metaphor to describe the political setting in which actors direct their claims to decision-makers in hopes of influencing the policy process. Renn conceives of several different (theatre) ‘stages’ sharing this arena: legislative, administrative, judicial, scientific and mass media.

Within the social arena of risk, the process of defining what is acceptable and what is not is often rooted in negotiations among several or multiple organizations seeking to structure relations among themselves. In such cases, Clarke argues, the institutional assessment of risk is a claims-making activity in which corporations and agencies both compete and negotiate to set a definition of acceptable risk.

From a theatrical vantage point, social arenas of risk are populated by sundry groups of actors. Palmlund (1992) proposes the existence of six ‘generic roles’ in the societal evaluation of risk, each of which carries its own dramatic label: risk bearers, risk bearers’ advocates, risk generators, risk researchers, risk arbiters and risk informers.

*Risk bearers* are victims who bear the direct costs of living and working in hazardous settings. In the past, those who are impacted most have rarely asserted themselves and have therefore remained on the margins of risk arenas. More recently, however, as can be seen in the rise of the environmental justice movement, risk bearers have become empowered and must increasingly be regarded as notable players. *Risk bearers’ advocates are those* fighting for the rights of victims (risk bearers). Examples include health organizations, and labor unions. They are depicted as protagonists or heroes. *Risk* *generators* – utilities, forestry companies, multinational chemical and pharmaceutical companies, etc. – are labeled as antagonists or villains since they are said by advocates to be the primary source of the risk. *Risk researchers*, notably scientists in universities, government laboratories and publicly funded agencies are portrayed as ‘helpers’ attempting to gather evidence on why, how and under what circumstances an object or activity is risk-laden, who is exposed to the risk and when the risk may be regarded as ‘acceptable’. On occasion, however, risk researchers have become identified with risk generators, particularly if their findings support the latter’s position. *Risk arbiters* (mediators, the courts, Congress/ Parliament, regulatory agencies) ideally stand off-stage seeking to determine in a neutral fashion the extent to which risk should be accepted or how it should be limited or prevented and what compensation should be given to those who have suffered harm from a situation judged to be hazardous. In reality, risk arbiters are rarely as neutral as they should be; instead, they frequently tend to side with risk generators. Finally, *risk informers*, primarily the mass media, take the role of a ‘chorus’ or messengers, placing issues on the public agenda and scrutinizing the action.

**Power and the social construction of environmental risk**

Freudenburg and Pastor (1992) have observed that the social constructionist approach to risk is well positioned to discuss risk construction in the context of power. In a similar fashion, Clarke and Short (1993) note that constructionist arguments – in contrast to those anchored in psychology and economics – tend to focus on how power works in framing terms of debate about risk. Both sets of authors share the belief that this relationship is especially important because official viewpoints, with their significantly greater access to the mass media, strongly suggest that public fears regarding technical risks are clearly irrational; that is, claims about public irrationality are in themselves ways of framing risk issues. By implication, policy formulations that originate with the community of risk professionals (see the previous section) are presented as rational, objective assessments of what is considered safe and what is not. If this view is accepted, then the central task is said to be educating the public to realize that they are overreacting and that nuclear power, herbicides, bioengineered organisms, etc., are not really the hazards that they appear to be. Therefore, the dominant rationality that comes from the risk establishment is superimposed over the popular frame due to a power differential. Popular concerns and risk frames are subordinated to those that are preferred by the powerful in society.