

ARTICLES

Disasters Are Nonroutine Social Problems*

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The United Nations proclaimed the 1990s as the International Decade for Disaster Reduction. This proclamation, and the activities it generates, highlights the necessity of exploring the conceptualization of disasters. We propose that disasters are best conceptualized as nonroutine social problems: social problems because they involve conjunctions of historical conditions and social definitions; nonroutine because they usually are ignored by the public until articulated as dramatic events. We begin by linking the origins of disaster research to social problems theory and, in particular, the functionalist tradition. We explicate how functionalism has provided the implicit assumptions for most sociologically focussed disaster studies, but not an analytical treatment of disasters as social problems. Rather that treatment has been stimulated by the social constructionist tradition within social problems theory. We propose that social constructionism informs rather than undermines the conceptualization of disasters as nonroutine social problems.

As profoundly dramatic events, disasters absorb people's attention, provide a medium for the build-up and release of emotions, and become collective representations or symbols by which past, present, and future happenings become rated and dated (Fritz 1961, p. 691).

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Disasters are part of the larger category of **collective stress situations**. A collective stress occurs when **many members of a social system fail to receive expected conditions of life from the system**. These conditions of life include the safety of the physical environment; protection from attack; provision of food, shelter and income; and guidance and information necessary to carry on normal activities (Barton 1969, p. 38).

The basic problem in the area of disaster studies is that we do not know what we are studying, or more accurately, we have up to now advanced only vague notions about our focus of research (a general point made by Quarantelli 1986, at a symposium on social structure and disaster).

Fritz, Barton, and Quarantelli are pioneers of disaster research in sociology. Both Fritz and Barton suggest that while disasters have distinctive qualities, they should be conceptualized as dramatic events within a much broader category of collective stress situations. Fritz assumes that disasters are social problems. That is one reason why he published his now authoritative article in a highly regarded textbook on that topic.¹ Barton agrees. Both in his influential literature synthesis (Barton 1969) and in his writing two decades later (Barton 1989, pp. 346–347), he suggests that collective stress situations appropriately fall within the literature on social problems. Although neither address the specifics, both Fritz and Barton imply that disasters are a particular type of social problem; that they can be defined on their own terms; and then compared with a broader range of societal concerns. Quarantelli probably would concur at some level, but his recent writings (e.g., 1986, 1987, 1989, 1994) suggest that despite numerous empirical studies of specific disasters, many issues remain to be debated regarding sociological conceptualizations of disasters. Because so much of our work has focussed on the social dynamics of disasters, the conceptual issues begged by Fritz, Barton, Quarantelli, and most other disaster researchers always have intrigued us. The specific issue we address in this essay is the utility of conceptualizing disasters as social problems. This is especially appropriate at a time when the United Nations has proclaimed the 1990s to be the International Decade for Disaster Reduction.

Using a slight revision of Fritz's initial statement (1961, p. 655), we first will explore the implications of defining disasters as nonroutine events (Drabek 1989a, p. 341). This orientation directs researchers to compare disasters on their own terms and distinguish them from other types of collective stress situations (Barton 1989, pp. 346–351; Perry 1989, pp. 351–359; Zurcher 1989, pp. 359–364). Next we will place this definition

within the tradition of social problems theory from which it emerged, functionalism. This tradition stresses pointedly the relationship between social organization and disorganization (Merton and Nisbet 1961). Functionalism, in its many variants, has been important for disaster research over the years, but not to its consideration as a social problem. Then we will highlight a different way of interpreting disasters. This view reflects social constructionist theory (see Spector and Kitsuse 1977 and Ibarra and Kitsuse 1993 for formal statements of the theory; Schneider 1985 for a summary of related research; Miller and Holstein 1993 and Holstein and Miller 1993a for overlapping compendia of commentaries). This tradition has been used by some to question the viability of defining disasters as social problems (see Stallings 1991, 1995). We will argue that insights from social constructionism inform rather than undermine the definition of disasters as nonroutine social problems. We conclude with a brief plea for building on the continuities of previous disaster studies, while at the same time embracing the theoretical insights of social constructionism. Because each perspective, i.e., functionalism and social constructionism, guides researchers toward different sets of questions, each makes an unique contribution to both theory and social policy.

Disasters as Nonroutine Social Problems²

A disaster is an **event** concentrated in time and space, in which a society or one of its subdivisions undergoes physical harm and social disruption, such that all or some essential functions of the society or subdivision are impaired (paraphrased from Fritz 1961, p. 655).

There does not seem to be any compelling reason why we may not think of **social catalysts** and use them in our theories. In the study of disasters, for example, events serve as catalysts whose presence [actual or potential] is necessary for examining the social and psychological concepts of interest to disaster specialists. It makes no difference whether the event studied is a flood, an earthquake, an explosion, or whatever (paraphrased from Dubin 1978, pp. 115–116).

We see more agreement than disagreement among social scientists about what disasters are, although how they can be distinguished from other types of social problems remains problematic (cf. Hewitt 1983; Kroll-Smith and Couch 1991). Simply put, disasters have been interpreted for centuries within western civilization as systemic events and social catalysts. But what kinds of events have been included? Within the past four decades, for

example, sociologists have focused on certain kinds of historical circumstances (e.g., rapid onset natural and technological disasters) and largely ignored others (e.g., slower onset famines, epidemics, mass migrations). Why is this the case?

Human beings have experimented throughout history with alternative ways of coping with the hazards they confront. While understanding of these coping strategies is far from complete, social scientists have gained much insight about them by exploiting the concept of bounded rationality (Burton, Kates, and White 1993). That concept helps to explain why and when some adjustments to hazards are adopted and others are not. Using parallel logic, Douglas and Wildavsky (1983, p. 5) have proposed that the social perception of risk is best conceptualized "... as a joint product of **knowledge** about the future and **consent** about the most desired prospects." Ideas about bounded rationality and risk perception relate directly to Perrow's (1981, 1984) specification of the distinguishing features of high-risk systems (complex interactions and tight coupling). He argues that any attempt to ensure safety in high risk systems is constrained by incomplete knowledge about core technologies and dissensus about how best to use and manage them. The inevitable results are accidents like that which occurred in March 1979 at the Three Mile Island nuclear power plant. Examining cases such as this one points to the unique qualities of disasters as nonroutine events. It also suggests that disaster prevention, response, and long-term recovery involve processes that may have significant parallels to the development of many other social problems. Various forms of system capability and strain, economic and political orderings, and the exercise of power relate to emergent levels of vulnerability, thereby providing the social context for the next unexpected disaster to occur (Pelanda 1982; Rossi 1993).

For example, when our adjustments to the use of floodprone lands are viable—because available knowledge has permitted a high level of understanding of phenomena we assume are predictable within the logics and dogmas of the day—we have routinized complex human-environment relationships. When these adjustments fail—the dam breaks, rainfall exceeds hydrological design standards, or whatever—that which was assumed to be routine becomes redefined as nonroutine. The demands for action and knowledge exceed the capacity of social institutions to respond, at least temporarily. A nonroutine social problem, a disaster in our terms, is the consequence. Disasters include a wide range of environmental, technological, and sociopolitical events which should be compared systematically. First and foremost, disasters are sociological events (Quarantelli 1987,

1989). This means they are inherent to all social systems, not apart from them (Short 1984). This also means disaster researchers must be sensitive to both the social antecedents and consequences of any event selected for study (Levine 1982; Hewitt 1983; Clarke 1989; Kroll-Smith and Couch 1990; Stallings 1990). Functionalist in tone, the above definition by Fritz was grounded primarily in the strategic bombing studies of World War II, as well as assessments of numerous peacetime events undertaken by the National Opinion Research Center (NORC) and later the National Academy of Sciences-National Research Council (NAS-NRC). Cited repeatedly since the early 1960s, Fritz's definition balances attention to physical harm and social disruption as objective conditions. But just as important, it implies that many types of events involve collective representations of and responses to these objective conditions (Barton 1969, 1989).

While precise thresholds of when historical happenings are socially defined as disasters have never been determined, no one (scientists, social and political elites, the general public) denies that such thresholds exist (see the discussions reported in Wright and Rossi 1981; Drabek 1989b). The most obvious qualities of events that qualify without debate are as follows: they involve major harm to the physical and social environment; they occur suddenly or are socially defined as having reached one or more acute stages; and something can be done to mitigate their effects either before or after they happen (Erikson 1976; Kreps 1984).

Hazards, or potential disasters, are just as important practically as well as theoretically as events which actually occur (Britton 1987). A life history perspective is therefore essential for studying disasters so that parallels to and differences from other social problems can be explicitly probed (Hewitt 1983; Quarantelli 1987, 1989; Shrivastava 1987; Drabek 1989a; Perry 1989). With that in mind, we offer slight modification of Fritz's definition of disasters as social problems. Disasters are:

nonroutine events in societies or their larger subsystems (e.g. regions, communities) that involve **conjunctions** of historical conditions and social definitions of physical harm and social disruption. Among the key defining properties of such events are length of forewarning, magnitude of impact, scope of impact, and duration of impact (Kreps 1989b, p. 219).

Thus, disasters have life histories which can be designated in social time and space. The phrase "nonroutine events" distinguishes disasters as unusual and dramatic social happenings from the reservoir of everyday routines and concerns which human beings encounter. They are "dramatic" because they entail an acute heightening of community awareness of threat

or potential threat. The dual reference to "historical conditions" and "social definitions" underscores the need to understand how social definitions of disaster emerge and the mix of competing definitions that may be involved. The conjunction "and" maintains balanced attention to physical harm and social disruptions as necessary conditions of disaster. The designation "societies or their larger subsystems" means that social disruption and physical harm, however they may be measured, must be socially defined as such at relatively high levels of aggregation (Bates and Peacock 1987). Death of an individual in an automobile accident, therefore, is not a disaster in this technical sense. For the smaller subsystem of the person's family, of course, the loss may be devastating. Only in rare instances involving perhaps a political elite within a highly strained and unstable society might the death of a single individual trigger a sequence of actions that could be classified as a disaster. Disaster therefore serves as a sensitizing concept (Blumer 1969; Dubin 1978). It calls attention to a certain class of social phenomena and highlights several underlying dimensions.

The above definition enumerates several key properties of disasters as nonroutine events. Although other properties have been noted (Dynes 1970), the four listed have received considerable attention over the years (Drabek 1986). Each can be interpreted in more than one way, depending on the analytical focus of the research. Length of forewarning, for example, can refer to the amount of time between the identification of hazardous conditions and the actual onset of effects on particular locations. This dimension can also relate to the activities of those involved in the production and dissemination of prediction and warning messages. Similarly, the three dimensions (magnitude, scope, and duration) of impact can refer to physical and temporal conditions of social disruption and physical harm after an event has occurred. These dimensions reflect patterned variations found in social systems related to the creation and definition of vulnerability to disasters before they occur.

One should not assume that event characteristics are independent variables and social definitions and responses are dependent variables. While this causal direction clearly has been emphasized within the disaster research legacy, one can just as easily reverse the causal argument, as would be the case in studies of disaster prevention, mitigation, or preparedness. In either case, the historical characterization of disasters by sociologists as nonroutine, dramatic, and systemic events sets important boundaries on the kinds of phenomena that we include within this analytic category (Bates and Peacock 1987, 1993).

The fact that thousands of people die on American highways in any given year does not mean that a disaster has occurred. The crashing of a fully loaded commercial airliner in the heart of a central business district, even though the death count is significantly lower than the annual highway carnage, meets our criteria of disaster. The nuclear power plant accident at Three Mile Island was collectively represented as an emergency, and certainly was a potential disaster. Potentiality became reality at Chernobyl. Poverty, hunger, and social unrest are chronic societal concerns. Economic depressions, famines, and wars are more likely to be defined as disasters. Global warming and ozone depletion are viewed by many as important environmental hazards. The possible disastrous consequences of these planetary threats, including secondary effects like sea level rise, are matters of considerable scientific and public debate (e.g., Gore 1993; Tonn and Weiher 1994; Vogt 1994). A nuclear attack is a reality for which there is a historical precedent. A nuclear war is a possibility that can only be postulated. But postulated or not, disasters are **conjunctions** of historical conditions and social definitions of physical harm and social disruption (Quarantelli 1989).³ Once again, we emphasize that the social antecedents of these historical happenings are no less important than their social consequences (Drabek 1989a; Quarantelli 1989).

Does the preceding discussion mean that disasters are more important than other social phenomena? No. Are they different? Yes, and that is the key to understanding disasters on their own terms and comparing them with other social problems. As identifiable events, disasters include actual or potential conditions of societies or their larger subdivisions. The list of disasters may be quite long; the length depends on how one defines the boundaries of the field. We propose keeping these boundaries broad to include environmental, technological, and sociopolitical events. Before, during, and after events occur, social systems take actions that are related in one way or another to them.

A Functionalist Approach to Disasters

The central orientation of functionalism is expressed by the practice of interpreting phenomena or events in terms of their consequences for larger structures in which they are implicated (paraphrased from Merton 1957, p. 47).

The core of the functional approach to social problems is to describe and explain conditions or behaviors that impede the fulfillment of societal goals, that interfere with the smooth functioning

of a society, or that throw a society into disequilibrium (paraphrased from Spector and Kitsuse 1977, p. 23).

Merton, a leading contributor to functionalism, coedited the social problems text in which Fritz's definition and discussion of disaster appeared (Merton and Nisbet 1961). Spector and Kitsuse argue **against** functional analysis and **for** social constructionism in studying social problems. Our position is that a functional approach to disasters has been very useful for developing sociological knowledge about disasters as nonroutine events. Following a brief elaboration of this point in this section, we will illustrate in the next section how social constructionism can augment that knowledge by showing how and why disasters are nonroutine social problems. Basic sociological concepts are central to both functionalist and social constructionist interpretations of disasters.

With one major exception, which we will discuss in the next section, there has been very little debate about the status of disasters as social problems. That status either has been taken for granted or has been seen as irrelevant to ongoing research (Drabek 1981). There also has been relatively little reflection about how disaster research relates to broader theoretical matters in sociology (see Kreps 1987, 1989a; and Freudenburg 1993 for relevant discussions). Even though most disaster studies reflect the functionalist tradition of social problems research, most disaster researchers have not emphasized this. In fact, most have not even thought about the matter or its implications.

Our explanation for this indifference is that historically disaster research in sociology has been heavily empirical. Theoretical issues have been defined in relatively narrow, substantive terms. Initially questions were raised about how victims respond to physical harm and social disruption. Usually, a social psychological approach was used to frame and answer these questions. Increased attention has been given in recent years to more purely structural questions about responses to actual or possible disasters (hazards). Typically, there has been considerable reliance on collective behavior and social organizational perspectives in trying to answer these questions (see summaries of disaster research by Quarantelli and Dynes 1977; Kreps 1981, 1984; Drabek 1986). But whether social psychological or structural, in virtually all cases there has been an attempt to understand actual or potential events in terms of their antecedents and consequences; the conditions themselves are deemed physically harmful and socially disruptive; and their antecedents and consequences implicate social systems (e.g., communities and societies) in very direct ways. We therefore conclude that there has been a strong functionalist cast in the disaster research

legacy, certainly in our work (e.g., Kreps 1984, 1985, 1989a, 1989b; Bosworth and Kreps 1986; Kreps and Bosworth 1993, 1994; Drabek 1987, 1990, 1991, 1994), and that of many other researchers.

Once again, we are not suggesting that a functional approach to disasters as social problems has been self-consciously implemented. Most researchers, including the two of us, have made only vague reference to functional theory and minimal reference to other social problems. Still, disaster research has great value because it highlights important contributions of sociological concepts for understanding what are very intriguing social phenomena (Dynes, Pelanda, and DeMarchi 1987). But rather ironically, disaster research never developed much within the social problems field from which it originated (Quarantelli 1989; Stallings 1991). This is unfortunate and, in the next section, we will make the case for the continuing relevance of social problems theory to the study of disasters.

Are Disasters Social Problems?

It should be abundantly clear that many events labeled "natural disasters" are not really disasters ... especially when regarded from the perspective of communities, states, and the federal government ... how big a disaster is it rational and efficient to prepare for? Perhaps the most reasonable policy is simply to admit ... that rare catastrophic events cannot be prepared for and to expect that special measures would have to be taken ad hoc if such events were to occur (Rossi et al. 1981, pp. 19-21).

The notion that social problems are a kind of **condition** must be abandoned in favor of a conception of them as a kind of **activity** ... if social problems cannot be conditions, what are they? Most succinctly, they are the activities of those who assert the existence of conditions and define them as problems.... **The central problem for a theory of social problems is to account for the emergence, nature, and maintenance of claims-making and responding activities** (Spector and Kitsuse 1977, pp. 73-76).

Disasters can be studied sociologically without making any reference to their being social problems. The question to be addressed, then, is what if anything is added by doing so (Bogen And Lynch 1993)? As noted above, it largely has been taken for granted over the years that disasters are social problems (Drabek 1981). But there is one major exception. Precisely when historical happenings are disasters became a hotly contested issue among American researchers and policy analysts with the publication of findings on the long-term consequences of selected disasters.

floods, hurricanes) in the United States. The group presenting those findings was headed by Peter Rossi, a major figure in the study of social problems. The above statement was a key conclusion from the first of three studies by the Rossi group (Wright et al. 1979; Rossi, Wright, and Weber-Burdin 1982; Rossi et al. 1983). An important conference took place in May, 1979 in Washington D.C. (Wright and Rossi 1981). Much of the discussion that followed the presentation of findings by the Rossi group involved a vigorous debate about whether they had actually selected disasters for research.

The impact ratio (i.e., the ratio of damages to remaining local resources) for average events or even statistical outliers in the 1960–70 period studied by the Rossi group was quite low. Thus some participants argued (e.g., Drabek 1981, p. 166) that the Rossi group's contention that natural disasters had no discernible long-term effects on the counties or even census tracts where they occurred was a foregone conclusion—one wrought by an ill-conceived notion of disaster, the units of analysis selected (census tracts and counties), and the strategy used for measuring effects. The Rossi group responded by asking what are the thresholds of disaster? How are they best measured? What range of events fit a more adequate definition of disaster? These questions produced lively discussion at the conference, no resolution, and much concern about conceptual clarity in disaster studies (Kreps 1989b).

The debate at the Rossi conference focused almost entirely on what were assumed to be the “**objective conditions**” of disaster events, not their conjunction with “**social definitions**.” As we have argued throughout, however, collective representations of disaster events are no less important than the conditions to which they relate, i.e., they are central to any social discourse about disasters (Holstein and Miller 1993b, pp. 132–135). Furthermore, which events “actually qualify” as disasters was debated, but not who makes that determination (Stallings 1991).⁴ Some attending the Rossi conference argued that scientists and public officials decide the matter purely on rational grounds.

Others disagreed. For example, Drabek (1981, pp. 162–163) proposed that there was a longstanding tradition in social problems research that needed to be considered. In contrast to accepting whatever the public defines as a problem on any given day, Sykes (1971), like Lynd (1948) before him, argued that social scientists have a responsibility to define social problems. Reacting strongly to the conclusion by the Rossi group that disasters generally were a nonserious matter, certainly ranking much lower in the public eye than pornography according to their survey data, Drabek argued in favor of the Lynd tradition. There may well be social trends that

exacerbate structural strains. And in the process segments of the population suffer.

... the real issue raised by SADRI's study, it seems to me, is whether the social scientist has a responsibility to define issues, not just study what a segment of the public, at a given point in time, might think is important. For the social scientist who acknowledges this responsibility, the assessment of what constitutes a social problem is quite independent of the perceptions held by the population. Rather it is based on a larger understanding, a sensitivity to the absolute losses that are occurring and, equally important, the potential losses that could occur (Drabek 1991, p. 163).

Fritz's statement at the outset of this article implies that those involved and the general public make a determination as to what is a disaster on both rational and nonrational grounds (Clarke and Short 1993). Spector and Kitsuse (1977) suggest that the distinction between objective conditions and subjective definitions of social problems is fundamental. Indeed, it lies at the heart of the debate between functionalist and constructionist approaches to social problems generally, one that can be traced to the origins of the social problems field in American sociology (1920s). Using the constructionist tradition for guidance, we highlight this fundamental distinction as the basis for our argument that both functionalist and constructionist approaches are important for unraveling disasters as nonroutine social problems.

How are social problems to be defined? Functionalists and constructionists agree that social definitions are always involved. There is a key difference between them, however, with respect to the relevance of objective conditions. For functionalists (and some constructionists), social definitions must relate to something out there. That something can be measured on its own terms as necessary (but not sufficient) for the development of a social problem. Pure constructionists accept the dualism of objective conditions and social definitions, but argue that the former are irrelevant for analysis (Best 1993, pp. 112–124). For them, objective conditions are neither necessary nor sufficient for the development of a social problem. Any preoccupation with objective conditions is a fundamental error because it diverts attention from definitional processes as objects of study.⁵

The Rossi conference illustrated the inherent pitfalls in accepting the false dualism advocated by some functionalists and many social constructionists. Representatives of each camp apparently want to deny the insights and contributions of the other. Functionalists highlight the objective facts such as those that were presented about the impacts of floods, tornadoes,

and hurricanes on social systems. Their concern is with that portion of the debate focused on differentiating real disasters from less severe circumstances. Constructionists emphasize that claims are being made about disasters. Their focus is on claims-making activities, not the facts themselves. The objective reality of disaster is not an issue.

In contrast, we propose that the social constructionist approach **complements** the perspective and range of questions raised by functionalists. Social problems are not defined as conditions, rather they are activities of individuals or groups making claims about putative conditions. The career of a social problem can be interpreted as the "organization of activities" asserting the need to change (e.g., mitigate, lessen, remove) some putative condition. A putative condition is one that is alleged to exist. Constructionists are indifferent to whether claims about such conditions are valid; argue that sociologists should not be in the business of certifying putative conditions; and should be interested only in building a theory of claims-making activities (Spector and Kitsuse 1977, pp. 75-78; Ibarra and Kitsuse 1993, pp. 26-29).⁶

We acknowledge, indeed highlight, the research agenda implicit within the social constructionist position. However, pursuit of that agenda does not preclude or negate studies of disasters that reflect the scientific traditions underlying functionalist theory. In contrast to those who limit their vision to social constructionism, and the range of research questions that flow from it, we urge adoption of a more comprehensive view, one wherein the insights of functionalism are retained rather than foregone. Hence, we are in complete agreement with Murphy (1994) who has questioned the limits proposed by some social constructionist scholars examining environmental issues:

Conceiving of science and technology as social constructions like magic has obscured the difference between fact and spurious knowledge of nature....

Although the social constructionist approach initially showed promise as a welcome corrective to the one-sidedness of the previous conception of science as impartial, it has degenerated into a one-sided conception of its own, but from the other side.... The sociological representation of science as a social construction has tended to obscure the discovery of the properties of nature and the effect such discovery has on social action, to ignore that nature itself is a crucial element in the scientific determination of what will be taken as factual knowledge, and to gloss over the manipu-

lation of nature and attendant environmental repercussions (Murphy 1994, pp. 196-197).

Defining the career of any social problem as the "organization of activities" is critical because it shows how disasters must be researched from a social constructionist perspective. If the focus is on the organization of activities, basic sociological concepts (such as collective behavior, formal organizing, role enactment) are needed to describe the origins and maintenance of claims-making and responding activities (Spector and Kitsuse 1977, Clarke and Short 1993). These very same concepts have been used successfully to capture the social dynamics of disasters as catalytic events. While historically most research has focused on what happens during and after "actual" events, more recently attention is being given to disaster prevention and mitigation activities relative to "future" events.

We suggested above that, notwithstanding the Rossi conference, disasters largely have been taken for granted as social problems by those who have studied them. Sociological knowledge of disaster response activities has developed effectively by defining disasters as nonroutine events. While that definition can be traced to the functionalist tradition, disaster research and social problems theory have evolved more or less independently. The rather unique nature of disasters as social problems has not been revealed within the functionalist tradition. It can be revealed more sharply within the social constructionist tradition.

The life history of disasters parallel the careers of social problems. That is, such life histories can be defined as the social organization of claims-making and response activities. Prior to an event, claims-making activities and responses to them are focused on future events whose probabilities of occurrence are low.⁷ With the exception of hazards managers and selective others (Drabek 1987, 1991; Mittler 1989), disaster prevention and mitigation are relatively low on the agendas of government officials, economic and political elites, and the residents of hazardous areas (Burby and French 1980; Mader, Spangler, and Blair 1980; Rossi, Wright, and Weber-Burdin 1982; Drabek, Mushkatel, and Kilijanek 1983; Turner, Nigg, and Paz 1986; Drabek 1994). When hazard mitigation programs are proposed, they are as likely to generate organized opposition as support.⁸

What all this means is that the social organization of claims-making and response activities about putative conditions will be subtle and contentious (see Stallings 1995 for an excellent discussion of the earthquake threat) rather than dramatic and consensual. At times, however, processes of defining putative conditions take place prior to a particular event. Related structural dynamics (e.g., role enactments of key participants, actions of

public bureaucracies, firms, and grass roots organizations) can be measured using conventional social science methods (Drabek 1970).

Extensive transformations occur, however, when danger is perceived as being imminent, or an actual event occurs. Non-issues may become focused public concerns (Gubrium 1993, pp. 58–59). As we emphasized above, the essence of disaster is the **conjunction** of historical conditions and social definitions of physical harm and social disruption at the community or higher levels of analysis. During and immediately following an event, claims-making and response activities translate as domains of collective action to meet demands that are socially defined as acute. A large-scale mobilization takes place to meet these needs, existing groups and organizations restructure existing activities, and new structural forms are socially created (Kreps 1989a; Kreps and Bosworth 1994). While it is not surprising that disasters are collectively represented as problems during this phase, actions related to their social construction as problems are no less important theoretically than those occurring prior to an event.

To argue otherwise is to overlook the necessity of placing disasters in social time and space. Their unique nature is thereby revealed. Disasters are nonroutine problems because definitional processes related to them change sharply, depending on what stage of their life history is being considered. Longer term recovery has been understudied as well by disaster researchers (Bates 1982; Bates and Peacock 1993). With respect to claims-making activities, we suspect that this phase is similar to predisaster contexts. But there is one important difference: the event will continue to serve as a catalyst for collective action as long as it remains a part of public discourse (Stallings 1990; Ibarra and Kitsuse 1993). During the recovery phase claims-making activities are more likely to be made to prevent or mitigate future events. We are back to where we started, the theoretical point being that issues about disasters as social problems are open-ended (Holstein and Miller 1993b, pp. 144–147).

Future Directions in Disaster Research

As public policy issues, disasters differ somewhat from more routine matters like crime, unemployment, and poverty. We must probe the social processes whereby disasters become defined as public policy issues (Drabek 1989b, p. 261).

I do not think that disaster phenomena have features commonly associated with social problems, and therefore I do not believe that such a theoretical orientation would be beneficial to the field of

For over a decade, Drabek (1981, 1989b) has suggested that important new insights can be gained when disasters are conceptualized as nonroutine social problems. We have extended this perspective and have illuminated many points that had remained vague or unanalyzed completely. It is clear that the definitional processes Drabek noted previously are central to social constructionism. It is somewhat ironic that Stallings, a key proponent of social constructionism, has argued strongly against treating disasters as social problems. Why? Because he seeks to limit the range of research questions only to those flowing from the social constructionist position. That is, while the earthquake threat has some elements of a “partially constructed social problem,” strict adherence to this theoretical perspective requires that researchers limit their attention exclusively to the “claims-making activities” of those seeking to promote such a definition. From this position the earthquake threat, and probably other natural disasters, cannot be regarded as “fully constructed social problems” (see especially Stallings 1995, pp. 212–213). Still, Stallings incisive analysis remains very important. We believe our disagreement with him exists largely because basic conceptual issues have not been given the attention they deserve **by disaster researchers**.

Our central conclusion is this: disasters are **conjunctions** of historical conditions and social definitions. Both conditions and definitions can be measured objectively. As events, the life histories of disasters can be compared on their own terms, and also to the careers of more routine social problems. Reliance on basic sociological concepts is essential to both endeavors. The sets of research questions derived from both functionalist and constructionist traditions of social problems theory converge on the phenomena of disasters before, during, and after they occur. The emergent research questions relate to social definitional processes and the behavioral activities reflective of societal adjustments to hazards. The answers to both types of questions are uniquely sociological. We must therefore build on the knowledge of previous disaster studies, while embracing the unique insights provided by social constructionism. There is no need for a reconceptualization of subject matter. Disasters are social problems of a special kind. But there is a very pressing need for more sociologists doing life history studies of disasters.

Our major concern about disaster research is that for too many years it has been perceived as a narrow, applied specialty within sociology. Consequently, disasters largely have been ignored by mainstream sociologists, even by those working in the social problems area (for a recent social problems textbook see Eitzen and Baca Zinn 1994). Related specialties,

such as environmental sociology and the sociology of risk, have been absorbed more readily within the social problems literature. They also have emerged more or less independently from disaster research. Bridges must therefore be built to increase the interactions and opportunities for cross-fertilization among disaster researchers, scholars working in related specialties, and sociologists trying to advance social problems theory. We wrote this essay with that goal in mind. Simply put, there are conceptual and measurement problems that sociologists need to address collaboratively (Blalock 1979). Solving these problems will be testimony of the worth of the discipline during the United Nations International Decade for Disaster Reduction. Indeed, that decade should be an object of social problems research.

It is clear that the disaster researchers must confront two very different levels of issues pertaining to external validity (Campbell and Stanley 1966), i.e., to what can we generalize? First, there is the matter of the range of events. We have argued for the efficacy of a broad range that includes environmental, technological, and sociopolitical events. Earthquakes, hurricanes, nuclear power or chemical plant explosions, and wars meet our criteria for disaster as do numerous other such events. Hence, we disagree with Erikson (1994), who argues that events involving toxic substances reflect a "new species of trouble," Quarantelli (1987), who proposes that disasters should be limited to nonconflictual events, i.e., those "... involving collectivities in which there is **consensus** on attempting to cope with crises" (Quarantelli 1987, p. 27), and others who have argued for a narrower scope. Instead, we see these qualities, like many others, as being potentially useful in a future taxonomy and structural theory of disasters whereby the limits of generalization can be identified with precision. Identifying qualities that **define the limits of generalization for specific theoretical relationships and models** must be a significant aspect of the future research agenda. But the selection of these or any other taxonomic criteria must be based on future cross-hazard empirical research, not polemics.

The second issue of external validity pertains to the historical accident that has biased the disaster data base and much of the basic conceptual work to date. That is, much of the data on disasters derive from studies by American sociologists of events that have occurred within the United States. It is an interesting exercise to speculate how our prevailing images of disaster responses, and the conceptual tools used to assess them, would differ if the preponderance of events studied had occurred in Poland, Mexico, Iran, or Kenya. Indeed, our focus on the community level of analysis clearly is a product of the decentralized structure of American

society. As future cross-societal data bases are constructed, not only may some of our fundamental conclusions be altered, or at least be qualified as to the type of society for which they are relevant, our very conceptualization of disaster may change. Furthermore, as disaster researchers seek to integrate the insights from macro analyses of the relation between environment and modernity (e.g., Mol and Spaargaren 1993), discussions about external validity will be driven in totally new directions.

The emergence of high-consequence risks, i.e., those that "... are remote from control by individual agents, while at the same time threatening the lives of millions of people and even humanity as a whole" (Mol and Spaargaren 1993, p. 451) may be a criterion of some modern societies that recast disaster responses and the operative definitional processes. "The unsettling aspects of high-consequence risks pertain not only to the danger itself, but also to the fact that we cannot make any reliable assessment of the risks involved" (Mol and Spaargaren 1993, p. 451). So-called "risk societies," wherein technologies used produce waste products that are known to pose a human health risk for 10,000 years, may not evidence exactly parallel theoretical relationships with those documented in other places at other times.

Similarly, as our vision shifts to real or potential disasters that are global in scope—an unfortunate consequence of the invention of technologies that may have cumulative, or even worse, irreversible effects—we must incorporate work like that of Järvelä and Wilenius (1993) into the research agenda. Over a decade ago, Douglas and Wildavsky (1983) cautioned us regarding the difficulties inherent in assessing the risks associated with the potential misuse of recombinant DNA research by mentally disturbed persons, terrorists, or others. Safety, they argued, does not lie completely in risk aversion, risk shifting strategies or an over-emphasis on a search for stability. Rather, policy development should be guided by strategies that emphasize enhanced resilience. Resilience, i.e., the capacity to use change to better cope with the unknown, stresses variability, flexibility, and variety. So too, Järvelä and Wilenius (1993) press us today to seek an improved understanding of the emergent, and highly fractured, policy creation processes pertaining to global climate change and other ecological hazards.

Finally, and most importantly, we see a need for another type of comparative research. As stated above, the time is overdue for numerous scholars to place disasters within the mainstreams of social problems theory using both the insights of functionalism and social constructionism. For example, Frey (1983) tested a series of hypotheses by comparing city adoption patterns for two federal programs—War on Poverty and National

Flood Insurance Program. His study, like those of a handful of others, e.g., May and Burby (1994), point toward our vision of the future. For in these seminal explorations disaster is placed within the ongoing social life of the community and the intergovernmental policy processes whereby risk reduction occurs. Constraints on individual freedom, risk levels, and opportunity structures are inherently linked to the broad array of social problems each generation of citizens and policy makers confront as they seek to implement their own vision of a just society. The relevance and importance of societal values is unquestionable and, as with any other social problem, disaster prevention and response should be guided by explicit value choices. When they are not, rest assured that decisions will be rooted in ignorance rather than self-awareness and empirically based scientific knowledge. Informed choices, trade-offs among stakeholders, and consensus building strategies are relevant to the life cycles of all social problems, including disasters.

As future comparisons are made between disasters and other social problems, our ability to understand and estimate the boundaries of our theoretical models will be enhanced. Such is the unique potential to future International Decades of Disaster Reduction that the discipline of sociology offers. The degree to which this promise will be fulfilled depends, we believe, on the acceptance of our vision and its complex challenges by successive generations of future disaster researchers.

Notes

1. After several editions, the textbook by Merton and Nisbet (1961) is still highly regarded. Ironically, Fritz's article did not appear in any subsequent editions. Apparently sociologists using it did not consider disasters as a good topic for social problems courses (Quarantelli 1989). One might conclude that social problems theorists reasoned that disasters did not fall within their specialty. But it takes a sophisticated argument to make that claim (Stallings 1991, 1995), one that we will address very specifically later in the essay.
2. The basic theme of this section was developed initially in an article on taxonomy (Kreps 1989b), and then elaborated further in a recent paper titled "Disaster as Systemic Event and Social Catalyst: A Clarification of Subject Matter." The more recent paper was presented at the 31st Congress of the International Institute of Sociology, June 1993 in Paris.
3. This is precisely the point Aday (1990, pp. 5–18) makes in his definition of deviance as both objective and subjective reality. Grounding functionalism and social constructionism in classical theory, he shows that

- their convergence on routine social problems, such as crime and mental illness, is both appropriate and necessary.
4. For Stallings, the social construction of a "problem" is a function of competing interests and power relationships. For Spector and Kitsuse, these interests and relationships are observed as the organization of claims-making and responding activities. While issues of social conflict heretofore have not been central within disaster research (Stallings 1988), it is axiomatic within functionalism that any social system is an organization of power (Hawley 1984).
 5. The above point merits emphasis: to the pure constructionist, treating objective conditions as necessary but not sufficient is totally unacceptable, for to do so inevitably is to treat definitional processes as mechanical and reactive. However, the independence of objective conditions and social definitions is what makes their convergence so intriguing (Aday 1990). Theoretically relevant, objective conditions are part and parcel of claims-making activities (Pollner 1993, pp. 83–88). Both can be studied empirically (Best 1993, pp. 118–119; Hazelrigg 1993, pp. 492–497).
 6. In the most recent formulation, Ibarra and Kitsuse replace the phrase "putative condition" with "condition-category" to emphasize the irrelevance of objective conditions for social problems analysis. Condition-categories refer to typifications (collective representations) of reality by those involved in claims-making activities. "We intend condition-categories, then, to highlight the symbol- and language-bond character of claims-making, as well as how members' facility with certain discursive strategies—including rhetorical and reasoning idioms—initiate and constitute the social problems process" (Ibarra and Kitsuse 1993, p. 27).
 7. The annual probability that a disaster will affect given individuals or communities directly and severely is quite low (Rossi, Wright, and Weber-Burdin 1982), and there is solid experimental evidence that people avoid thinking about events whose probability is below some threshold. That is to say, they are less likely to be attuned to low probability, high loss events (disasters) than high probability, low loss events (Kunreuther et al. 1978).
 8. This does not mean that people deny or do not fear the threat of disaster. People living in obviously hazardous areas are sensitive to the threats they face, and often do something about them (Burby et al. 1988; Berke, Beatley and Wilhite 1989; Cross 1990; Palm et al. 1990). Rather, it suggests that people necessarily are preoccupied with more immediate problems and concerns of daily living (Turner, Nigg and Paz 1986).

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