

The Ohio State University  
Disaster Research Center

MISCELLANEOUS REPORT #4

CONCEPTUALIZING COLLECTIVE STRESS

DRC STAFF REPORT

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The following provides a way of conceptualizing outcomes of collective stress situations. While there are many different agents which produce collective stress, we use a disaster agent as the stressor in most of the illustrations that follow. This conceptualization, however, is capable of being extended to other types of collective stress induced by different agents. What is advanced here is a particular perspective for looking at certain stress situations which indicates the complexities of the components involved and suggests, in an illustrative way, a few problem areas for research.

While there are many ways of conceiving social and psychological phenomena, for purposes of discussion here, we choose to see such phenomena in terms of a system. A system refers to the functioning interrelationships of parts. Viewed in this way the concept is applicable to both micro and macro units, that is to individuals as well as to small groups and collectives.<sup>1</sup> A society, thus, can be seen as an ongoing social system.

A collective stress situation, to use Barton's terms, is created when there is a large unfavorable change in the inputs to the system, its subsystem and/or the micro systems within it.<sup>2</sup> Certain stress agents impinge on different systems at different times and lead to different behaviors. In looking at this formulation, let us build from simplicity to greater complexity.

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For a discussion of this point see William Caudill, Effects of Social and Cultural Systems in Reactions to Stress. New York: Social Science Research Council, 1958 and Allen Barton, Social Organization Under Stress: A Sociological Review of Disaster Studies. Washington: National Academy of Sciences, 1963.

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Barton, op. cit. p. 3

1. Characteristics of the stress agent are related to certain outcomes of behavior.

Taking the disaster agent as the stressor, it is possible to isolate certain characteristics which should have significance for behavior. It can be suggested that disaster agents differ in their frequency, preventability, speed of onset, scope (spatial dimensions), duration of impact, length of possible forewarning period and destructive potential. The characteristics have different consequences of behavior. For example, the dimension of preventability probably is related to behaviors centering on blame, either at the individual level - self blame or collective blame - searching for a scapegoat.<sup>3</sup> High frequency of disaster agents within certain systems might lead to greater adaptive behavior on the part of individuals and collectivities. Similar hypothetical relations could be posited in terms of directionality, for each of the characteristics.

2. Outcomes of behavior, created by characteristics of the stress agent, will vary in terms of the level of the system.

Three different systematic levels are suggested here - individual, organizational and community. Behavior will vary according to the level of the system.<sup>4</sup> There is no necessary inclusive quality which assumes that stress at the community level is equivalent to individual stress or that individual stress is additive

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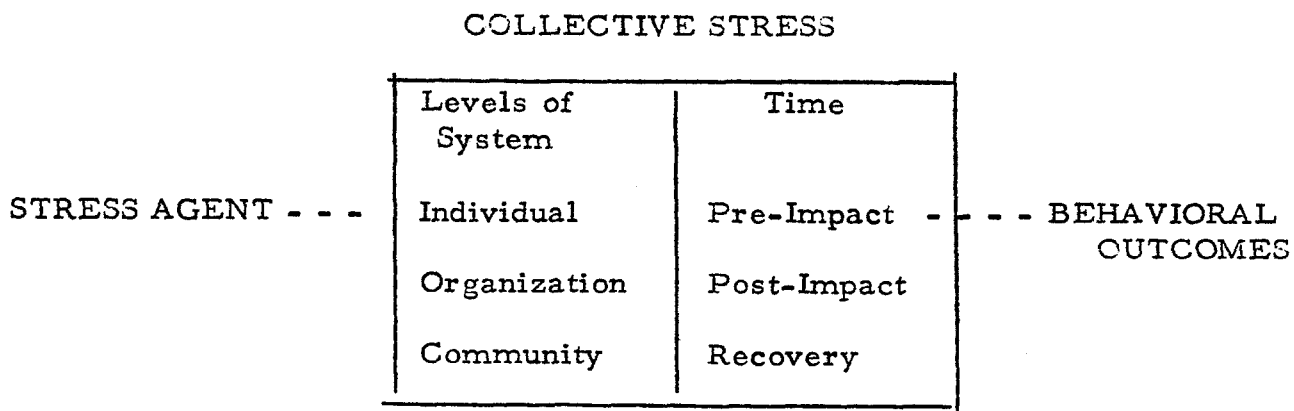
<sup>3</sup>For a discussion of this particular problem see Thomas E. Drabek and E. L. Quarantelli, "Blame in Disaster: Another Look, Another Viewpoint," DRC Paper 1966-4.

<sup>4</sup>For an example of a discussion of problems at the community level see, Daniel Yutzy, "Functional Priorities in Community Disasters," DRC Paper 1966-6. For a discussion of organizational stress see, Thomas E. Drabek et al. "A Theory of Organizational Stress." DRC Paper 1964-4. For a discussion of stress at the individual level see Mental Health Implications in Civilian Emergencies, Public Health Service Publication No. 310. Washington: U.S. Government Printing Office, 1953.

to produce organizational stress. For example, greater speed of onset of the stress agent may be productive of greater anxiety on the individual level. The consequences of speed of onset on the organizational level may be in terms of greater difficulty in ascertaining organizational tasks and consequently may inhibit rapid mobilization and involvement. At the community level, greater speed of onset may have its consequences in greater problems of inter-organizational cooperation.

3. Outcomes of behavior in different systems, created by the characteristics of the stress agent, will differ in time.

It is useful to look at collective stress as occurring in a particular time period. Certain types of behavior may be appropriate at one time period and not another. For our purposes here, we divide time into three periods - pre-impact, emergency and recovery. Of course, in the pre-impact period, the significant behavior will center on the perception of threat and precautionary activities at the various system levels. In the impact and recovery periods, different types of behavior are necessary. In these stages, it is useful to see them as periods characterized by unplanned behavioral change which then focuses attention on a whole range of problems of adaptation. Schematically, the conceptualization can be visualized in the following way:



The following three charts elaborate these ideas. The entries in the tables do not attempt to specify directional hypotheses nor attempt to relate specific characteristics of the stress agent. They indicate what might be considered problematic outcomes of behavior, at different levels and times periods, which might be expected by the characteristics of the stress agent. Each of the mentioned areas could be elaborated for specification of directionality of specific hypothesis, adding explanatory psychological and social variables. In addition, the entry of a different kind of stress agent would change the specific examples but not the overall conceptualization. The entry, then, indicates areas for investigation rather than specific hypotheses.

Following the charts, three specific research problems are briefly discussed.

# 1. COMMUNITY PROBLEMS

Characteristics of Stress Agent	Pre-Impact Period	Emergency Period	Recovery Period
A. Frequency of past crises	1. Reading the environmental cues	1. Assessing overall impact on community	1. Determining of cessation of emergency
B. Preventability	2. Assessing the space-time dimensions of possible impact	2. Collating information on community needs and problems	2. Reinstating of routine community activities
C. Speed of onset	3. Instituting overall preventative actions	3. Establishing priorities for community activities	3. Initiating community changes as result of opportunities provided by stress situation
D. Scope-spatial	4. Warning threatened populations	4. Ascertaining unmet community "needs"	4. Reestablishing or redistributing community power
E. Duration of impact	5. Coordinating overall protective activities	5. Instituting effective control of emergency activities	5. Implementation and planning for future stress situations
F. Length of possible forewarning period	6. Evacuating threatened populations	6. Establishing coordination among community organizations	etc.
G. Destructive potential	7. Preparing standby resources	7. Notifying extra-community sources	
	8. etc.	8. Handling convergence of materials and personnel	

Community Problems con't

Characteristics of Stress Agent	Pre-Impact Period	Emergency Period	Recovery Period
		9. Controlling relations with extra-community organizations etc.	

## 2. ORGANIZATIONAL PROBLEMS

Characteristics of Stress Agent	Pre-Impact Period	Emergency Period	Recovery Period
A. Frequency of past crises	1. Ascertaining possibility of impact	1. Ascertaining stress created demands on organization	1. Determining which stress related activities if any, should be continued and for how long
B. Preventability	2. Assessing the probable organizational involvement in the impending stress situation	2. Assessing of variations in nature and levels of demands	2. Establishing priorities as to regular tasks vis a vis stress related tasks
C. Speed of onset	3. Ascertaining kind and extent of effort needed to prevent or minimize threat to the organization	3. Allocating of organizational resources- determining priorities for use of resources	3. Re-establishing or re-vising authority-decision making patterns
D. Scope-spatial	4. Alerting organizational personnel	4. Utilizing and maximizing mobilized resources	4. Adjusting to prior "excess" use of organizational resources (e. g., personnel, maintenance work on equipment, depletion of supplies)
E. Duration of impact	5. Activating emergency plans	5. Using and rejecting of extra-organization resources such as volunteers	5. Assessing organizational lessons learned and planning for future stress situations
F. Length of possible forewarning period			etc.
G. Destructive potential			



Organizational Problems con't

Characteristics of Stress Agent	Pre-Impact Period	Emergency Period	Recovery Period
	<p>6. Preparing organizational response for impact</p>	<p>6. Processing of information: (a) assuring incoming demand information gets to appropriate points in the organization; (b) assuring that action reports get to appropriate points in the organization and/or external points in the community</p>	
	<p>7. Controlling of organizational mobilization</p> <p>etc.</p>	<p>7. Establishing and stabilizing authority-decision making mechanism</p> <p>8. Keeping records on costs, nature and extent of work completed</p> <p>9. Maintaining of organizational autonomy</p> <p>etc.</p>	

### 3. INDIVIDUAL PROBLEMS

Characteristics of Stress Agent	Pre-Impact Period	Emergency Period	Recovery Period
A. Frequency of past crises	1. Perceiving nature of threat	1. Perceiving nature of impact and danger to self	1. Responding to long-run organizational activities
B. Preventability	2. Judging of probable self involvement	2. Interacting with others in attempt to validate definition of the situation	2. Expressing of attitudes toward losses and deprivations
C. Speed of onset	3. Validating nature of threat, directly and from others	3. Perceiving responses of others	3. Perceiving of behavior and responses of others
D. Scope-spatial	4. Taking of precautionary actions including evoking of appropriate motivation for behavior	4. Self perceiving of differential role responsibilities	4. Defining of the meaning of the stress event for self
E. Duration of impact	5. Experiencing affective states	5. Taking different adaptive actions	5. Reestablishing of prior personal behavior patterns
F. Length of possible forewarning period	6. Relating self response to behavior of others etc.	6. Getting involved in organizational activities	6. Changing of personal behavior patterns
G. Destructive potential		7. Experiencing affective states during and after impact	7. Incorporation of learning experience into preparations for future stress situations
		8. Communicating with distant significant others etc.	

### Specific Illustrations:

Community. It is a common observation that communities after a disaster event develop priorities of appropriate activity during the emergency period. In general, preservation of life becomes the dominant concern with the care for stricken population also having high priority. All other community activity tends to be justified as appropriate only if it relates to these high priorities.

Such a problem might be approached in several ways. One plausible hypothesis would relate frequency of the disaster event to the speed in shift in priorities as well as to the degree of "irrelevant" behavior. In communities which experience disasters with greater frequency, the establishment of priorities is almost "automatic" and, because of this, random, undirected behavior is minimized. In communities with less collective experience, the establishment of priorities is an erratic, slow process and much "irrelevant" behavior is continued in the community during the emergency period.

Data collection could be developed along several lines. Communities could be rated as to the frequency of their experience with disaster events. Communities with differing frequencies could be studied. Taking different time periods during the emergency, definitions of community priorities could be obtained from a sample of community officials. A somewhat similar sample could be drawn from among community members. In addition, behavioral data could be obtained on the timing and cessation of various community activities. Through such actions, indications would be provided of working priorities within the community.

Organizational. Organizations typically have an established range of services which they provide for the community. Their economic resources, manpower allocations and organizational procedures are approximately in balance within the anticipated demands for their services.

In a disaster many of these organizations perform many of their normal activities at a greatly expanded and accelerated pace and in addition, they will frequently be called upon to perform some non-regular functions as well. Unless their funding and manpower levels are drastically increased at the time of the increased activity, which is seldom the case, certain functions must be neglected in favor of those which are more pressing during the emergency and recovery periods. It seems likely that many of these normal but "neglected" tasks never do get entirely "caught up." If this is the case there may well be some long range negative consequences for the organization and for the community.

It could be hypothesized that the greater the speed of onset, the larger the scope and the longer the duration of the crisis the greater will be the magnitude of the "neglected" tasks. A careful study of health service organizations, for example, under varying conditions of stress (technically variation in stress agent characteristics) should permit a test of the "magnitude" hypothesis as well as other related hypotheses. Attempts to ascertain the longer term consequences of such neglected tasks could be conducted by periodic revisits to the organizations in the sample.

Individual. It is a common pattern after a disaster for victims to speculate about its cause and its meaning. In some but certainly not all instances, blame or responsibility for the disaster is ascribed to specific persons, groups, organizations,