TECHNOLOGICAL DISASTER AND THE NONTHERAPEUTIC COMMUNITY
A Question of True Victimization

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ABSTRACT: The importance of a therapeutic community has been proposed as a useful mechanism for overcoming the trauma and stress experienced by disaster victims. This article reviews the origin, components, and applications of the therapeutic community concept for natural disaster situations. The question is raised whether such a mechanism emerges in response to environmental hazards other than rapid onset, natural disaster agents. Using case study data from two technological events, one involving the aerial application of pesticides, and the other the disposal of asbestos tailings, it is concluded that under certain circumstances, the classic therapeutic community is unlikely to develop in technological disasters. The factors mitigating against its development are examined with a primary focus on the question of "true victimization," the formation of victim clusters, and the emergence of community conflict.

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A number of researchers have discussed the emergence of a therapeutic community following a natural disaster. Variably conceptualized as a social utopia (Fritz, 1961), a post-disaster utopia (Wolfenstein, 1957; Taylor et al., 1970), or an altruistic community (Barton, 1969), the therapeutic community provides the victims of natural disasters with important demonstrations of physical and emotional support and creates within the stricken community an ambience of solidarity and unity of purpose essential for beginning the process of disaster recovery. Feelings of loneliness are replaced with camaraderie; feelings of despair over losses are shared and supplanted with communal hope for a return to normalcy.

Technological disasters, like natural disasters, may have serious emotional as well as physical consequences for their victims. As the nature of chemical hazards became publicly known at Love Canal, for example, residents felt anger, frustration, and fear (Gibbs, 1983). And, in the days following the accidental emission of radiation at Three Mile Island, many residents reported considerable stress (Flynn, 1982). Certainly, such experiences demonstrate that those exposed to environmentally hazardous agents have identified themselves as disaster victims whose health and welfare have been jeopardized.

The occurrence of such technologically hazardous situations raises an interesting question: Does a therapeutic community develop to provide emotional support and practical assistance for technological disaster victims?

This question was addressed by identifying, from the relevant literature, factors contributing to the emergence of a therapeutic community following a natural disaster and determining whether these same factors existed following a technological disaster. Two case studies, carried out by the authors, were focused upon: a technological disaster involving asbestos contamination at a mobile home subdivision and a technological disaster involving the aerial application of agricultural pesticides on cotton fields located near the homes of urban residents.

THE THERAPEUTIC COMMUNITY IN NATURAL DISASTERS

Fritz (1961) was one of the first disaster researchers to identify a number of postdisaster features that created a unifying effect on an affected society. Barton (1969) presented a set of 71 interrelated propositions about individual and collective behavior that he felt accounted for the conditions under which a therapeutic community emerged. Dynes (1970), in discussing the development of norms encouraging altruistic behavior in disaster-affected communities, summarized and elaborated on Barton's propositions, outlining a number of reasons that community conflict tended to be minimized during an emergency situation. More recently, Quarantelli and Dynes (1976) identified seven factors associated with the absence of community conflict in natural disaster situations. The following discussion of factors contributing to the emergence of a therapeutic community draws upon contributions from these important works.

THE DISASTER AGENT AND ITS PATH OF DESTRUCTION

A primary feature of natural disasters is the known, threatening nature of the disaster agent. Whether an earthquake, tornado, hurricane, or other disaster agent, hazardous consequences are known to affect the populations involved; and there is little ambiguity regarding possible destructive effects. A definitive threat, therefore, exists around which generally shared feelings of apprehension and fear may develop.

At the same time, the disaster agent has an indefinite course of possible destruction. The path of its impact and calamitous consequences are not preordained. They are judged to be the result of nature's whim, God, or fate rather than the outcomes of malicious intent, neglect, or human carelessness. Therefore, the potentially harmful effects of the disaster agent, the reasons for its occurrence, and its pattern of impact do not become a divisive issue for community members.[1]

EMOTIONAL AMBIENCE

Overall, an emotional ambience of common suffering and altruistic concern pervades the postimpact community. Because the disaster agent followed an indiscriminate path and could not have been prevented, community members experiencing serious loss are not likely to feel intentionally or unjustly victimized. Moreover, they can usually find others who are worse off than themselves or who have undergone an equivalent loss. They are also likely to believe that the community as a whole has suffered significant damage and that emotional upset and material destruction is distributed across a wide variety of ethnic groups and socioeconomic classes. These factors contribute to the development of what Fritz (1961: 686) has termed a "community of sufferers." Victims can set aside, at least temporarily, the "Why me?" phenomenon found in other types of crises and develop the perspective that "all of us have suffered; we are all in it together" (Fritz, 1961: 685).

Community members who survive the disaster with little or no adverse consequences may feel fortunate in comparison to other more severely victimized individuals. They may also feel some degree of guilt for having survived the situation with little or no loss. Whether the mechanism is survival guilt (Erikson, 1976) or relief about having come through the disaster relatively unharmed, an optimum context exists for nonvictimized community members to develop feelings of sympathy and concern for their less fortunate neighbors.[2] In addition, the belief that victims are relatively blameless, that is, they did not choose to live in the path of destruction, encourages empathic responses from those less affected by the disaster.

THE EMERGENCE OF CONSENSUS

Suffering and damage in the aftermath of a natural disaster is highly visible to community members. Furthermore, remedial needs are obvious and urgent, facilitating their becoming the foci for feelings of sympathy and concern. Within this context, Quarantelli and Dynes (1976: 142) describe how a high consensus of priority actions develops, consisting of widespread agreement on what should be done in the disaster situation and in what order. This postdisaster consensus assigns primary consideration to the care of victims, for example, administering first aid or providing food, clothing and shelter, followed by concern for communitywide problems: (1) the restoration and maintenance of essential community services, (2) maintenance of public order, and (3) the maintenance of public morale (Dynes, 1970: 87).

The postimpact situation is also highly conducive to altruistic behavior on an interpersonal level. When victims' needs are clear-cut, the emotional context is one of sympathy and concern. Because opportunities for individuals to provide direct aid to others are abundant, efforts to assist usually produce discernible, beneficial results within a short period of time.

The development of creative, cooperative responses on a communitywide level also exists because problems are obvious and imperative. Many taken-for-granted community services, for example, communication and transportation facilities, have been disrupted; and a number of official resources commonly relied upon for assistance are unable to function in the immediate postimpact period. It becomes readily apparent that new strategies to deal with these problems must be devised quickly and that cooperative action among community residents is necessary to meet these new needs. Efforts are oriented to the immediate situation. Behavior becomes guided by emergent norms (Turner and Killian, 1972: 21-25) as traditional, routine ways

of handling situations are unavailable or inoperable. Individuals also find that they have new opportunities to go beyond their predisaster, everyday, routine roles and to participate in activities benefiting the entire community (see Fogelman and Parenton, 1959; Nigg and Mushkatel, 1984), a situation labeled by Dynes (1970: 96) as a redefinition and expansion of the citizenship role.

In effect, emotion, thought, and behavior are directed at engaging in mutual helpfulness and responding effectively and cooperatively to restore the normal social life of the community.

ENACTING SOLIDARITY: A COMMUNITY RESOURCE

When an identified disaster agent brings about nonpurposive, randomly distributed, and obvious destruction, community members are likely to develop definitions of common suffering, sympathy, and concern. The apparent individual and community needs in the postimpact disaster situation provide foci for those definitions and facilitate the development of a *consensual adaptation* during initial community recovery.

As community members engage in acts of mutual helpfulness and cooperatively take part in beginning the return to normalcy, they actively demonstrate to themselves and others that it is possible to create a sense of community even though taken-for-granted institutional resources have been destroyed or at least temporarily disrupted. Community members have undergone loss and deprivation, but they have also experienced compassion, gratitude, and the esprit de corps of working together toward a common goal.

As they see the beneficial results of their efforts, a general sense of community identification and unity emerges. Together, community residents *enact solidarity* (Turner, 1967: 2), providing each other with the emotional suste-

nance necessary to overcome disaster trauma. Enacted solidarity also forms the basis of the community's positive attitude toward the future and is reflected in an "amplified rebound" effect (Fritz, 1961: 692) that carries the community beyond its predisaster levels of integration, productivity, and capacity for growth, sustaining them temporarily until institutional resources begin the long-term process of reconstruction.

In summary, there is substantial empirical evidence of a therapeutic community emerging in the immediate, post-impact phase of natural disasters. Moreover, its emergence appears closely related to the presence of important contextual factors such as general consensus on the nature and risk level of the disaster agent; beliefs that the disaster could not have been prevented; indiscriminate, highly visible, and communitywide damage; and obvious and urgent needs toward which feelings and remedial action can be directed.

THE THERAPEUTIC COMMUNITY IN TECHNOLOGICAL DISASTERS

A number of researchers report the presence of considerable conflict following technological disaster (see Levine, 1982; Mazur, 1981; Nelkin, 1984; Nigg and Cuthbertson, 1982; Nigg and Young, 1979). The pervasiveness of conflict suggests that a therapeutic community of the type usually found in natural disasters does not always emerge following public disclosure that a community has been or is being exposed to a technological hazard.

To understand how a *conflictive*, rather than consensual, *adaptation* develops following a technological disaster, a detailed examination was made of the pesticide and asbestos events,[3] both of which involved considerable community conflict. A number of important differences were noted between the context of the two technological events and the general context of natural disasters. These differences changed the character of the events in a manner facilitating the development of conflict and impeding the formation of a traditional therapeutic community.

CONTEXTUAL FACTORS FACILITATING THE EMERGENCE OF CONFLICT

AMBIGUITY OF NATURE AND CONSEQUENCES OF DISASTER AGENT

The known, threatening nature of the disaster agent and little ambiguity regarding its destructive effects is an important factor in the development of a consensual adaptation following natural disaster. In contrast, ambiguity regarding the nature and consequences of disaster agents was a major factor contributing to the emergence of conflict in the pesticide and asbestos events.[4]

In general, individuals involved in the pesticide and asbestos events attempted to clarify two types of ambiguity: the nature of the disaster agent (whether or not it was hazardous) and the possibility or extent of health consequences (whether or not a disaster had occurred).

Personal decision making under conditions of uncertainty and the acceptance of living-at-risk in proximity to natural, environmental conditions has been well studied (see Simon, 1956, 1959; Slovic et al., 1974; Young and Nigg, 1979). With respect to natural hazards, risk is usually a predisaster consideration—whether or not to reside in a flood plain, in a rugged woodland, near a known earthquake fault, or on a low-lying island. With respect to technological agents, however, whether a hazard truly exists at all is often a question that must be answered.

Furthermore, if the technological agent does have negative effects on human health, who is most susceptible to effects, how concentrated does the exposure need to be

before health effects occur, and what length of time must an individual be exposed to the agent before harmful effects are likely? Or probable? Or certain?

These questions are often difficult to answer within existing frameworks of knowledge about the nature of various physical and chemical substances and their relationship to human health. Even when substances are considered hazardous, it is difficult to establish "safe" levels of exposure. Most chemical or substance testing is conducted with laboratory animals over a fairly short time span. That such findings can be projected to human beings is a basic assumption of medical research, an assumption that is currently being widely challenged. Also, definitive scientific evidence is not available (especially for recently developed chemicals) to link physiological, biological, or psychological symptoms to particular exposure episodes or events. Whether specific harmful effects can be linked to earlier exposure (especially when some effects, such as cancer or asbestosis, may take years or decades to develop to a debilitating stage) creates debates within the medical community concerning the relationship between most chemicals and disease or illness. Given this climate of controversy within the scientific community, experts frequently disagree about the nature of the exposure and the amount of risk to public health.

Ordinary citizens, however, frequently rely on the assessments of experts for formulating their own definitions of the extent of risk inherent in situations involving technological agents. Ambiguous or contradictory messages from experts leave open the realm of possible decisions concerning the riskiness of the situation, allowing for disagreement to emerge (Nelkin, 1984; Nigg and Young, 1979; Mazur, 1981). These individual decisions concerning the hazardousness of the agent are them framed (Goffman, 1974) within informal social circles (Kadushin, 1968). Decisions are, therefore, based on similar past experiences (Young and Nigg, 1979) or in accordance with the personal value

systems of the potential victims and their significant others (Williams, 1957).

Ambiguous or contradictory messages from experts also establish a context within which individuals producing or utilizing technological disaster agents frame their definitions of the situation. Such contexts enable them to legitimate taken-for-granted, experiential views of the technological agent and support the positions of experts proclaiming the technological agent safe. In general, two basic perspectives emerge: the belief that a technological hazard exists and could cause harmful health effects and the assertion that a substance is not hazardous to those exposed to it.

The nature and consequences of asbestos, for example, became differentially defined. A number of subdivision residents, the majority of community residents, asbestos millers, and several government officials considered asbestos an important, valuable, and nonhazardous substance. Other subdivision and community residents as well as federal and state officials considered asbestos definitely hazardous.

In the case of pesticides, residents, experiencing symptoms such as headaches, diarrhea, nausea, and respiratory irritation, had noted definite associations between their symptoms and agricultural pesticide applications. Chronic pesticide poisoning, however, was hard to identify; local doctors did not know how to test for it, and expert, scientific knowledge on pesticide poisoning was limited and inconclusive. As a result, differing definitions of the nature and consequences of the disaster agent developed. Residents maintained that they were being poisoned by pesticides; pesticide regulatory officials and agribusiness community representatives rejected that contention and attributed residents' complaints to allergies, hysterical reactions to pesticide odors, or the dust stirred up by aerial applicators' helicopters.

SELECTIVITY OF DISASTER AGENT

In natural hazard events, the disaster agent is indiscriminate, striking across geographic as well as social class lines. Becoming a victim, therefore, is a matter of fate. In the pesticide and asbestos events, however, the threat was centered in a specific location, causing many residents to feel unfairly singled out as victims. Because the disaster agent was no longer random and nonpurposive, residents could attribute their circumstances to human intention or neglect; furthermore, they could focus blame (see Baum et al., 1983: 352). Often, the occurrence of the hazardous condition was seen as resulting from social arrangements that provided benefits to vested interest groups, such as the agribusiness community in the pesticide situation and asbestos millers in the asbestos situation. For vested interests or officials to have allowed the condition to occur if it could have been prevented or to permit it to continue unabated often led to definitions of injustice and related anger. In general, blame, along with definitions of injustice, became the standpoint from which collective sentiment emerged and was directed against the alleged perpetrators of victimization (see Turner and Killian, 1972; Downs, 1972).

DISASTER CONSEQUENCES: INVISIBLE OR INAUTHENTIC

Unlike the visible devastation associated with a natural disaster, the consequences of a hazardous chemical or substance may not be readily apparent. Asbestos disease, for example, has a latency period of from 20 to 30 years; consequently, no visible physical symptoms were present to provide evidence of suffering or facilitate altruistic concern.

Furthermore, in view of beliefs that harmful effects would not occur or would be insignificant, emotional distress,

often the focus of sympathy in natural disasters, was seen as inauthentic or simply the consequence of scare tactics by the media or officials.

Even when physical symptoms were present, as in the pesticide case, sympathy and concern were lacking. Within the context of differing definitions regarding the nature and consequences of agricultural pesticides, symptoms were seen as hysterical reactions or allergies, not true health effects from pesticide exposure.

REMEDIAL MEASURES: UNWARRANTED OR DIFFICULT TO DEVISE

In contrast to the obvious need of natural disaster victims and the emergence of consensus on priority remedial action, remedial measures for the pesticide and asbestos events were difficult to devise and implement or considered unnecessary.

In the pesticide and asbestos events, for example, certain officials, believing that no hazard existed or that harmful effects would not occur, did not define the situation as a disaster. Consequently, they attached no urgency to the need to ameliorate the situation. Moreover, when they did define the situation as a disaster, they often had difficulty obtaining conclusive test results or providing the resources and expertise for appropriate remedial action. In turn, residents who believed that a hazard existed felt that officials were unable or unwilling to respond to, ameliorate, or mitigate the hazard satisfactorily.

In addition, community residents did not provide the social support technological disaster victims desired. Believing the disaster agent was safe, many community residents considered remedial efforts unnecessary; feeling unsure about a threat or believing that the disaster agent was hazardous, they lacked the knowledge and resources to provide assistance.

TRUE VICTIMIZATION

Within the context of ambiguity over the existence and level of risk, the extent of harmful consequences, the unjust allocation of risk, damage that was invisible or considered inauthentic, and the problem of ineffective or unnecessary remedial action, the question of true victimization became paramount. Where no threat is perceived, can there be a victim? When risk is believed to be negligible, is it appropriate to render assistance? If so, what can be done? When harmful effects are only probable at some time in the distant future or cannot be definitively linked to the disaster agent, is it necessary to commit resources to ameliorate projected future problems? Also, when a public issue has been made over what is perceived to be an unjustified situation, who are the "true victims"?

In reference to these questions and to empirical evidence generated from the asbestos and pesticide case studies, a typology of technological disaster victims was developed. It is suggested that through the emergence of particular *victim clusters* and the behavior of cluster participants, community conflict, not solidarity, was enacted.

A COMMUNITY OF VICTIMS

PRIMARY VICTIMS

Primary victims were those individuals who lived in proximity to or were knowingly exposed to the technologically created hazard that was likely to have negative effects on physical health. Primary victims included those residents who lived adjacent to agricultural lands and were exposed to pesticides and defoliants for several months each year and the residents of the mobile home park constructed on the site of an abandoned asbestos mill and

located near two other mills (one operative) and asbestos tailings piles.

Two types of primary victims were identified: those who believed that their exposure to the agent had endangered their health and those who claimed that the technological agent was safe and that they were unlikely to experience any negative health effects. It was from this disagreement between two primary victim groups that two sources of conflict arose: whether the technological agent was sufficiently hazardous to warrant further community concern and whether resources should be committed to the short as well as long-term effects of the disaster agent.

Hazard-endangered victims. Hazard-endangered victims were primary victims who perceived the disaster agent as a definite threat. Whether they were suffering from explicit health problems, such as the headaches, nausea, and respiratory irritation experienced by residents living near cotton fields sprayed with agricultural chemicals, or were worrying about developing future, serious health problems, such as individuals exposed to asbestos tailings, hazard-endangered victims were concerned and anxious over their own and their families' welfare.

To complicate matters, hazard-endangered victims regarded themselves not only as victims of the disaster agent but as victims of unresponsive or inept officials, profit-minded, unethical industry personnel, and, in some cases, an uncaring community. Often, officials were seen as acting irresponsibly in a number of ways: allowing the hazardous situation to develop in the first place, not providing conclusive health or hazard test results soon after the situation became a public concern, and not taking immediate and effective remedial action. In addition, industry personnel who had a stake in the production or use of the technological agent were quite often viewed as intentionally greedy, deceptive, and insensitive. Usually, hazard-

endangered victims believed that industrial interests knew about the hazardous nature of the agent beforehand and that they engaged in cover-up activities based on profit motives. Furthermore, hazard-endangered victims often considered community members who defined the technological disaster agent as nonhazardous as a source of threat, not support.

In general, hazard-endangered victims lost their feelings of confidence in the possibility of a supportive and safeguarding social milieu. They felt they were in a crisis situation, but they did not feel confident the crisis would be legitimated and resolved. Moreover, they were unable to buffer their distress by experiencing general community support.

Forming a hazard-endangered victim cluster became a means for hazard-endangered residents to achieve a sense of solidarity and control over the disaster situation. Acting together, hazard-endangered victims focused their efforts on proving that the disaster agent was hazardous and obtaining official action to ameliorate the situation. For example, hazard-endangered victims in the pesticide situation organized two pesticide groups—Citizens for Pure Air and People's Environmental Organization for Pesticide Legislation and Enforcement—and took part in anti-pesticide rallies and legislative letter-writing campaigns, all focused on obtaining official action to curtail the use of agricultural pesticides near urban neighborhoods. And, hazard-endangered asbestos victims formed a homeowners association to facilitate interaction with officials and the media. These activities did enhance solidarity within the victim clusters; at the same time, they impeded the development of communitywide solidarity and established the basis for future conflict.

Hazard-disclaimer victims. Hazard-disclaimer victims, like hazard-endangered victims, were exposed to the technological agent; however, they did not view the agent as dangerous nor did they consider themselves likely to suffer ill effects. For example, a significant minority of subdivision residents did not consider asbestos hazardous or were not at all concerned about developing asbestos-related disease.

In addition, hazard-disclaimer victims did not consider hazard-endangered victims to be the true victims of the technological threat; they primarily viewed them as contributors to controversy or opportunists desiring a free handout from the government. At times, hazard-disclaimer victims felt sympathy for hazard-endangered victims; they sympathized with them, however, as victims of the media, officials, or irrational fear, not as true victims of an environmental hazard.

Hazard-disclaimer victims often felt *they* were the true victims of disaster. Their lives had been disrupted, and their property values had plummeted as a result of publicity. In addition, in the asbestos case, hazard-disclaimer victims felt they were being forced to move from an area they considered safe. Relocation, which was viewed as a beneficial remedial measure by hazard-endangered victims, was perceived as government interference by hazard-disclaimer victims.

Hazard-disclaimer victims forced to relocate found they were not able to count on previous, taken-for-granted core values such as freedom of choice or the right to private property. They, like hazard-endangered victims, developed mistrust for government officials as well as for particular media or experts who represented positions at variance from theirs.

Overall, hazard-endangered and hazard-disclaimer victims found themselves in a situation where their differing perspectives on the situation and the reasons for its occurrence disrupted any predisaster neighborly cohesiveness. Hazard-disclaimer victims felt resentful toward hazard-endangered victims' "phony" demonstrations of distress, quest for media attention, and involvement in lawsuits.

Hazard-endangered victims defined former friends and neighbors as callous or ignorant and considered their hazard-disclaimer stance a barrier to issue resolution. Solidarity among primary victims as a whole was not enacted. Furthermore, hazard-disclaimer victims created a victim cluster with others of similar views and sentiments, and, in opposition to hazard-endangered victims' efforts, attempted to gain proof for the safety of the disaster agent.

SECONDARY VICTIMS

Apart from those individuals who resided at or near the disaster site and differed over their definitions of the disaster agent and its health effects were the secondary victims of technological disaster. These community residents considered themselves victims of the public acknowledgment of a technological event. Whether they were the alleged perpetrators of the technological disaster or were simply members of the general community in which the disaster site was located, they felt that they were involuntarily suffering the consequences of media portrayals of the issue, official remediation attempts, and continual, issue-related controversy.

Perpetrator victims. Perpetrator victims were those individuals labeled as unethical, opportunistic, and uncaring by hazard-endangered victims and their supporters. They frequently were "big business" representatives, for example, cotton farmers, the aerial pesticide applicators, and agrichemical company representatives in the pesticide situation, and the millers in the asbestos situation. They were the people who had allegedly committed the crime, that is, negligently disposed of toxic wastes or continued to distribute and apply hazardous substances despite information suggestive of their threatening nature.[5]

Perpetrator victims reported considerable emotional distress, especially anger, over being classified as "villains." It was difficult for them to imagine that a chemical or substance with many beneficial uses was hazardous. Furthermore, they did not feel that they or users of their products had suffered any harmful effects even after many years of use or exposure. Accordingly, they were offended at being accused of knowingly using dangerous substances and of intentionally endangering human health to make a profit.

Perpetrator victims saw themselves and their industries as the victims of opportunistic and overzealous officials, environmentalists, misinformed citizens, and certain media. They saw hazard-endangered victims--and often had sympathy for them—as victims of fear and panic created by officials and the media, not as victims of an authentic hazard.

Feeling ostracized, misunderstood, and unfairly condemned by many community members, perpetrator victims also joined together in victim clusters. Sharing similar beliefs and sentiments, they attempted to prove, with the help of expert testimony, that the technological agent was not hazardous. They also worked toward getting their side of the story presented in the media.

Bystander victims. Bystander victims were those members of the community who were *not* living within the area exposed to the technological agent but who still saw themselves as victims. Their victimization arose from connection with the issue itself. They became embarrassed by the issue's portrayal in the public arena; they saw their own and the community's economic welfare endangered by publicity over the hazardous situation; they became frustrated at official delays in clearing up the situation and returning their community to normal; and they personally suffered from outsiders' remarks or fears about the danger of their community.

This seemed to occur whether or not bystander victims defined the disaster agent as hazardous and whether or not they felt hazard-endangered victims deserved sympathy and assistance. If they considered the agent hazardous and felt sympathy for hazard-endangered victims, they often felt personally unable to do anything about the situation. They, therefore, usually did little or nothing to assist hazard-endangered victims personally, contributing to hazard-endangered victims' feeling of a lack of community support.

On the other hand, when bystander victims felt the situation was unjustified or exaggerated, they did not view hazard-endangered victims as true victims. Rather, they considered the real victims to be the undeservedly harassed perpetrators, hazard-disclaimer victims, and the community at large.

In general, most secondary victims felt victimized by an unfair, drawn-out, and ambiguous issue. They were also disappointed, irritated, and disillusioned by what they perceived as official lack of response and control. They, like primary victims, lost confidence in the competence and accountability of scientific experts and government authorities.

SUMMARY

Overall, from the standpoint of variable definitions of the asbestos and pesticide situations, members of various victim clusters attempted to demonstrate the correctness of their own interpretations of the nature and risk level of the disaster agent and the consequences of exposure. The emotional climate that emerged was one of anger, frustration, resentment, bitterness, and anxiety. Feelings of helplessness and inability to control the environment developed within victim clusters, creating a resistance to aiding or supporting the members of other victim groups. Defensive communications proliferated among the clusters, further polarizing the groups and deepening community conflict. As the issues were prolonged, levels of stress remained high, and earlier conceptions of community solidarity were disrupted, impeding the extension of social support and empathic understanding to members of other victim groups. Clearly, in these particular technological disasters, factors conducive to the emergence of a therapeutic community did not exist. Within the context of ambiguity regarding the nature and health consequences of the disaster agent, damage that was invisible or considered inauthentic, selectivity of the disaster agent, and problems regarding the necessity or effectiveness of remedial measures, community conflict, rather than solidarity, was enacted.

NOTES

1. This is especially true in the emergency period of the disaster situation. However, in what Moore (1958: 315) has conceptualized as the "brickbat" stage, hostility may develop over rehabilitation procedures or measures that could have mitigated specific damage. Yet questions concerning the prevention of the disaster agent, the course of its destruction, or whether its harmful effects were real remain basically irrelevant.

2. For a discussion of the relationship between guilt and helping behavior, see Berscheid and Walster (1967), Carlsmith and Gross (1969), and Darlington and Macker (1966).

3. An *event* is being distinguished from an *emergency*. The substantial release of a known hazardous material into the environment is a rapid-onset emergency situation that is responded to by emergency management personnel in the same manner as they would respond to the occurrence of a natural hazard. A technological event, on the other hand, may or may not become an emergency situation depending on how the affected population defines it.

4. Ambiguity is not a major factor in all technological disasters. In the case of Bhopal, India, for example, there was little, if any, question regarding the toxicity of methylisocyanate gas. The gas, used in the manufacture of agricultural pesticides, killed an estimated 2500 people and injured nearly 200,000 others. In technological disasters like Bhopal, where there is little ambiguity over the disaster agent and its consequences, a therapeutic community may be more likely to develop.

5. It is important to note that perpetrators are usually not held *responsible* for the technological disaster. For example, in the pesticide situation, perpetrators

were looked at as callous and unconcerned, and perhaps intentionally malicious. But it was the derelict protectors—regulatory authorities and other local, state, and federal officials—who were held responsible for *allowing* the situation to occur and not controlling or disciplining the perpetrators.

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MISSING EXHIBITS

NAME: Massachusetts Attorney General

NUMBER: 8

DESCRIPTION: EBS Messages Draft

REASON FOR ITS ABSENCE: Never received into evidence

NAME OF ITS CUSTODIAN: Massachusetts Attorney General

MISSING EXHIBITS

NAME: Massachusetts Attorney General

NUMBER: 9

DESCRIPTION: Videotape by Thomas Adler

REASON FOR ITS ABSENCE: Never Given to Reporter

NAME OF ITS CUSTODIAN: Massachusetts Attorney General's Office
(Allen Fuerst)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

May 26, 1987

MEMORANDUM FOR: John Milligan
Technassociates

FROM: Emile L. Julian, Acting Chief
Docketing and Service Branch

SUBJECT: SEABROOK EXHIBITS

Any documents filed on the open record in the Seabrook proceeding and made a part of the official hearing record as an exhibit is considered exempt from the provisions of the United States Copyright Act, unless it was originally filed under seal with the court expressly because of copyright concerns.

All of the documents sent to TI for processing fall within the exempt classification.