CHAPTER 4

SOCIAL PROBLEMS IN DISASTER

Summary

Panic, defined as irrational flight, is relatively uncommon in natural disasters. It only occurs when survivors perceive increasing danger and diminishing avenues of escape, and these conditions are usually absent. There is generally not much looting, at least by the survivors themselves in the emergency period. Outsiders may be more prone to loot. Somewhat later there may be other kinds of exploitation like obtaining goods and compensation under false pretenses, and profiteering. A common problem following natural disasters is convergence, of messages, people, and supplies moving into the area, and survivors converging on treatment, relief, and information centres, all adding to disorganization and confusion. A disaster typically produces a series of mood and morale changes in the survivors. The disaster syndrome consists of four phases of emotional and mood reactions: shock, suggestibility, euphoria, and frustration. Recurrent disasters, if they do not cripple the community, may lead to high morale and community cohesiveness. A major problem in disaster is social disorganization and collapse with the result that individual survivors must largely fend for themselves for a time. Communication, coordination and control, and authority are the three main factors in maintaining and re-establishing social organization. The assistance of outside emergency organizations is often essential for establishing order and coordination of emergency measures. Realistic and decisive leadership is vital in handling the problems of disaster. A good leader appreciates the nature of a problem, initiates action, coordinates the activities of others, and reduces uncertainty and apprehension in others. If official leaders do not rise to the occassion, emergent leaders usually take over. What man becomes the leader in a situation depends on his having the qualities which serve the group in satisfying their needs and attaining their goals in that situation.

The Problem of Panic

Most terms used with reference to human behaviour have such a variety of meanings that it is difficult to know precisely what is being discussed. The word "panic" is a good example. "(It) is used by different writers, and sometimes the same writer, to mean a subjective feeling of fear or terror, bad judgement, inefficient behaviour, acting too fast, no acting fast enough, blind flight, any kind of flight, paralysis, or a vague global concept of wild, animal-like behaviour."[1]

In the literature on disaster the term "panic" is used to refer to uncontrolled fear-motivated flight behaviour which occurs without concern for others, for alternative courses of action, or for social consequences. The flight may take almost any form, including running, crawling, riding, jumping or driving a vehicle. Panic behaviour is always oriented, in purpose, away from some danger or threat. Even when an individual apparently runs into a danger, as he dashes through a burning doorway, his purpose is to get out of and away from the house. It is motivated solely by the fear of what might *happen*—"If stayed there I would have been killed", and there is no attempt to deal with or control the danger itself.

In many circumstances in which the flight of panic occurs, it is the most adaptive course of action in that particular situation. The most effective and appropriate action possible when the walls of a building are tottering from an earthquake is to flee. Likewise, to jump from a first storey window of a burning building may be the most functional kind of behaviour. It would have unhappy consequences, however, if the window were on the tenth floor while at the same time there were less dangerous exits available. The problem with panic behaviour is that the individual is not able to think ahead to the possible consequences. He is not rational, in so far he is unable to consider alternative courses of action; and does not have sufficient self-control to carry out an orderly withdrawal or escape from the situation.

Just as individual panic behaviour is not always harmful, so with panic behaviour in a group. If the panic behaviour of a number of people is appropriate in itself and has no anti-social consequences, such behaviour may serve a purpose. Thus the mass flight of many householders from their gas filled houses in Brighton, New York, had no anti-social and harmful results in itself. However, when panic occurs in a large number of individuals in a somewhat limited area, the possibilities of damaging consequences are greatly increased.

The necessary conditions for panic are: (1) when people perceive or believe there is an immediate, severe, and increasing danger. (2) when they perceive or believe that there are a limited number of escape routes; (3) when they perceive or believe that the escape routes are or may be closing. It should be noted that the term "believe" has been used in the above definition. This is important because it is not necessary that individuals actually "see" the danger or "see" the escape routes closing; it is sufficient that they hear, rightly or wrongly, about these possibilities. Each of these conditions is necessary for panic to occur. If there are no escape routes whatsoever, there will be no panic—where can one flee in a sunken submarine or in a blocked mine? On the other hand, if there are all manner of open escape routes, though there may be flight, it will

[1] From AN INTRODUCTION TO METHODOLOGICAL PROBLEMS OF FIELD STUDIES IN DISASTERS, Publication # 465, Disaster Study # 8, National Academy of Sciences—National Research Council, 1956, $0.75. pp. 6-7.

not have the urgent and irrational character of panic. Following the atomic bombing of Hiroshima, most of the survivors streamed out of the city. They were frightened, but more by what *had* happened than by what they thought *might* happen. Moreover, there were innumerable escape routes and this reduced the urgency of the flight. Indeed, many individuals turned aside to answer a call for help from an injured or buried victim. On the basis of a survey of all available information, Janis (1951) concluded that there was relatively little real panic in the mass exodus from Hiroshima.

A number of other factors may contribute to increase the likelihood of panic. First, a relatively sudden and drastic change of stimulation—darkness, very bright light, intense sounds; second, confusing and ambiguous stimulation, from people running around, from vague and contradictory information; third, a crowd situation, because there are few formal and informal relationships to control the behaviour of individuals, and the behaviour of a few is likely to be imitated by others; and fourth, lack of experience and preparation such that people do not know what to expect, tend to over-estimate the danger, and have not practised thinking of alternative courses of action.

The role of the group or crowd condition was illustrated in the Iroquois Theater fire in Chicago, in 1903. In fact, the theater was not burned but was damaged so little that performances could have been put on within two days. However, the crowd in the theater perceived the danger, and then when a few panicked and headed for what seemed to be a limited number of exits, there was a stampede in which 602 died.

Panic behaviour has been uncommon in both natural disasters and emergencies associated with war. However, it should be emphasized that this is undoubtedly a function of the conditions which typically have obtained. The greater proportion of natural disasters have happened with very little warning and without clear and frightening signs that a disaster was about to strike a particular population—there was no time for panic behaviour to develop. After the impact, the major dangers were over so there was no point in flight. Finally, escape routes have generally not been limited nor perceived to be closing. Thus the conditions for panic have simply not existed in most disasters.

The situation might be very different if a definite and rapidly increasing threat of nuclear war was to occur. If people in some of our large cities perceived those cities as potential targets, if they believed that war was likely in a short time, and if they were stimulated by past experience of traffic jams, by news, rumours, or observation of people departing, to believe that the escape routes from the city might be blocked or clogged, there might well be a general tendency to panic. The pressure to take one's family and run for it could build up rapidly in such circumstances. The problem in such a situation is essentially twofold: adequate, accurate, authoritative, and credible information on the one hand, and adequate traffic control on the other.

Looting and Exploitation

Contrary to the popular view, there is generally not a great deal of looting, stealing, crime and profiteering following natural disasters. The popular view probably arises from the tendency

of the mass communication media to report the dramatic and the unusual, and also from a misunderstanding of the motivations and conditions under which such kinds of anti-social behaviour occur. As Fritz and Matthewson (1957) have emphasized, whereas disasters may increase the opportunities for exploitation, they also reduce the motivation for this kind of behaviour. This is the general finding *for those directly involved in the disaster, and for most of the emergency period following a disaster.* A disaster usually eliminates the differences between people, in wealth, property, and status, which are important in stimulating exploitation. At the same time, all of the victims are faced by common and very urgent problems of fear and survival. Moreover, those who in normal times might have felt rejected, isolated, or detached from society, will generally find themselves wanted, needed, and accepted in a disaster. Indeed, one of the remarkable social effects of a disaster is the manner in which it at least temporarily increases democratization and social solidarity among those affected, as they share a common condition and potential fate. What may occur is that as the survivors engage in rescue and relief work, valuables are picked up in the course of such tasks, not because the individual plans to loot or steal but because the article was valuable and out of place at the time.

While there is little evidence that survivors in a disaster area engage in exploitive behaviour in the early emergency period, the situation may be different somewhat later and as a variety of people from outside converge on the area. Outsiders are not preoccupied with fear and problems of survival, they are in a relatively unfamiliar community and so are less controlled by knowing and being known by others in the area, and opportunities for looting are often increased by the fluid and crowd-like situation. As might be expected, looting occurs under these conditions. There are reports of looting by civil defence workers in Great Britain during World War II, and by police and National Guardsmen following natural disasters in the United States. Gold teeth and jewelry were stolen from corpses, some of the jewelry being removed by cutting off a finger, following the Cameron Parish disaster in Louisiana (Bates *et al,* 1963). And there are some cases in which more systematic and large-scale looting has occurred—of generators, relief supplies, furniture, and so on.

Although concrete evidence is hard to come by, students of disaster believe that there is also quite a lot of *petty pilfering* or souvenir hunting following a disaster. This is typically carried out by outsiders, during the late emergency and early recovery period. This kind of activity can hardly be classified as malicious exploitation for personal gain, but seems to represent the rather child-like need of some people to collect objects, pictures, and remnants which symbolize an experience and may be shown to others.

There is another kind of exploitation which usually develops following a disaster, namely, that of *getting relief supplies, pay, and assistance* under false pretenses. Busloads of workers claimed pay for work they did not do. and individuals misappropriated relief supplies and equipment following the Cameron Parish disaster. Some people have reportedly gone to the emergency feeding centre for a meal when they had adequate supplies at home; others have gone from agency collecting goods of various kinds. This kind of exploitive activity tends to occur in the late emergency period while the various emergency agencies are operating without sufficient coordination. Should there be a real or rumoured threat of future privation and shortage of necessary supplies

it is likely that this kind of behaviour would increase in frequency, and it could develop into a black market phenomenon.

There is little systematic and verified evidence on the kind of exploitation which has been called *profiteering*, that is, behaviour which is designed to take advantage of the disaster victim's losses and anxieties for the exploiter's personal gain. However, there are sufficient reports of this kind of behaviour that it should be anticipated and controlled by the authorities. One difficulty with this kind of problem is that the business community operates on the law of supply and demand, and hence some raising of prices tends to be viewed as legitimate. Characteristically, business and professional persons are generous with their supplies and services immediately following a disaster. It is in the later phases that the law of supply and demand may get out of hand and result in open profiteering, to the disadvantage of the victims. An important cause of such behaviour is the degree of privation and threatened privation in the community following the event. Immediately after a natural disaster, the impact zone is typically flooded with goods and services, and there is no shortage of anything that most people could want at the time. However, as the urgent problems of the emergency period are handled and the survivors begin to face the full force of their losses and look to the future there may be a sharp rise in the demand for goods and look to the future there may be a sharp rise in the demand for goods and services which are in short supply. Moreover, if society at large is suffering from some privation, as is often the case during war, this will likely increase the incidence of various kinds of exploitation.

The Convergence Phenomenon

Disasters in North America are almost invariably followed by convergence behaviour, internal convergence as survivors move en masse toward hospitals, morgues, government offices, radio and TV stations, and to rescue, relief and other treatment centres; external convergence as people and supplies stream in from outside and as communication networks are jammed with enquiries and offers of assistance. The net result is a mixed blessing at best. The injured get to treatment centres, outsiders assist with emergency problems and the supplies are sometimes needed. However, there are invariably congestion and traffic jams which greatly hinder the development of organized and efficient emergency measures.

Convergence of people. The people who take part in the convergence phenomenon have been classified into five types according to their motives: the anxious, helpers, exploiters, returness, and the curious (Fritz and Mathewson, 1957).

(1) *The anxious* are those people who are motivated by anxious concern for family members, relatives, friends, neighbours, possessions and property. Most of the people in this category are from the impact area itself, with a few more coming from the adjacent filter and fringe areas. They are often obsessed with the single purpose of finding a particular person and may be quite oblivious to other problems around them.

(2) *Helpers* are the people who are moved by a desire to help the victims and assist in handling the many problems which have been created. A large proportion of the people in this catego-

ry come from the fringe and filter area adjacent to the impact zone. Others move in from further afield, and a proportion of the survivors assume this role after they have cared for themselves and their families.

(3) *The exploiters* are the people who move in from the outside with the purely selfish motive of looting.

(4) *Returnees* are the people who are motivated to return to their home ground. There seems to be a very strong tendency for people to return to their homes following a major emergency, whether it be in the form of war, air raids, floods or tornadoes.

(5) *The curious* are individuals who are motivated to investigate the unusual.

These different types of convergers tend to be active at different times following a disaster and individuals may move from one category to another. The anxious and the helpers are typically activated shortly after the impact; the curious may start toward the impact area soon after the disaster, but usually accumulate in numbers in the days following; the exploiters tend to move in during the late part of the emergency period; and most of the returnees come in during the late emergency and early recovery periods. When the anxious have satisfied their concern for family and friends, they often turn to become helpers and may go on to investigate the situation out of curiosity. And of course the occasional one may also become an exploiter.

The manner in which curiosity can lead to convergence is highlighted in the following example:

> A number of years ago, we had a number of firemen who were killed in the Harbour Fire Department, and there was a big mass funeral for them and burial, and lots of people—it was in the winter—came out there to stand around and watch the funeral. That was really a funny deal. There was not much you could do about it. There was a great crowd there and there was nothing but little holes in the ground that they could put the men in, but people, they were all concentrating around the one spot. I don't suppose there was more than five hundred or six hundred out there, but then the people began to press in, and when they pressed in close, the ones in front were getting shoved in the graves, and they began to holler and scream. Well, the more they hollered, the more the people in the back thought something interesting was happening and the more they pushed in, and the more they pushed, the more the guys in front hollered. Oh, boy it was a funny sight! Those crowds, they're crazy. I don't know what's the matter with them! We finally got it broke up[2]

The problem of returnees is rather unique in disasters. In the first place, it presupposes that there has been a relatively large scale evacuation of the area. In nearly all natural disasters which strike suddenly, such evacuation does not occur. However, when the disaster agent moves in more slowly, as is often the case with flooding, the local population may be evacuated. In other words, evacuation is usually a response to an increasing local threat, which can be avoided

[2] From *The Formation and Nature of Crowds*, by W.A. Westley. Ottawa: Defence Research Board, Department of National Defence, 1956. p. 27. Used by permission

by moving out of the area. The condition of threat and danger is also the cause for evacuations in wartime. For example, 1,400,000 people, mostly women and children, were evacuated from English cities in the three days prior to World War II, and two million more silently left London during the blitz in 1940. A unique case in which evacuation occurred was that of Hiroshima: after the atomic bomb exploded over that city there was a mass exodus and the city was virtually emptied in a short time.

Whatever the conditions or timing of evacuations in the face of threat and calamity, the evacuees usually come streaming back to their home ground. Within four months of the beginning of World War II, 900,000 evacuees from British cities had returned to their homes; and within 24 hours of the atomic explosion over Hiroshima, a high proportion of the survivors had moved back into the city to take up residence in the debris. The battle for Casino, Italy, during World War II reduced that place to rubble and scattered its inhabitants far and wide. However, within a few weeks of the end of the battle the former inhabitants drifted back to live in caves, cellars and dugouts, largely without food or means of livelihood, and in an area that was highly dangerous because of malaria and 550,000 mines.

This tendency to return to one's home and to familiar ground is a powerful motive in man. Many people are at a loss in a strange environment, especially if they have few or no resources. In the absence of familiar surroundings of houses, corner store, friends and familiar faces, and a social system into which they fit, life losses much of its meaning and purpose. Although ours is a relatively mobile society to-day, the homing tendency is still very strong, and people will often go back to their home ground, although it be a disaster area.

Curiosity is another powerful motive behind human behaviour. Novel situations and strange events attract both animal and man to explore them. This is a very important and useful tendency, as it brings the individual in contact with a growing variety of situations and ideas and thus expands his adaptability. The strange and very novel usually arouses some fear and apprehension on the first exposure. However, with repeated exposure, this reaction declines until the individual pays little attention to the phenomenon. The strange phenomenon becomes assimilated and accepted, and it is precisely this process that enables young men to become doctors and face the distressing situations which they must handle in practice. In a like manner the curious and the sightseers who toured bomb-damaged areas in British cities and who go to visit a disaster area are probably gaining an experience that would render them less sensitive in a like situation.

While curiosity is a basic and most useful motive in man, it does lead to convergence problems of formidable proportions in disaster. Within an hour after the White County tornado, hundreds of automobiles began moving along the main highway into the disaster-stricken communities, and this flow of traffic continued for over one week. On Sunday, two days after the tornado, some 1,700 an hour took to the highway leading into one of the areas, and cars were reported lined bumper to bumper for 10 miles on either side of it. A second wave of cars began arriving in the evening with persons from more distant parts of the state and surrounding states. Following the Waco, Texas, tornado, the area was jammed with people, cars, airplanes buzzing overhead—almost stopping any effective rescue and relief work (Fritz and Mathewson, 1957).

Convergence of material. At the same time as masses of people converge on a disaster area, a flood of materials and supplies starts to occur. The day after the White County tornado, the most devastated town, Judsonia, was swamped with the influx:

> There was no place to put it....that created a big problem. We had a few headaches so much that was worthless rags. They had some pretty good ones. Somebody sent an old doggone big carton of falsies. We got a tuxedo, a nice one; it was in good condition. High button shoes and two derby hats. No work clothes to speak of....Unsanitary old mattresses full of bedbugs and torn up and smelled....well, when some of that stuff was hauled out and burned....there were rumours about how we were handling donated clothing....[3]

A large proportion of the material goods which are shipped into a disaster area are unsolicited. Much of it is useless at the time, although some would be welcome later on during the recovery period. The problem is that it comes in a most unplanned and uncontrolled manner: in one instance a freight carload of tomato juice, lumber, bedding, utensils, clothing, some sorted and labelled and much of it just junk, simply arrived on the scene. The result is an overload of goods, some useful and some not, which congests the area and requires the efforts of many of the emergency personnel to sort, distribute, and otherwise dispose of.

Convergence of messages. The problems created by the convergence of people and material goods is compounded by an overload of messages and enquiries on communication systems. Not only do large numbers of radio, TV and newspaper personnel move in—137 decended on Springhill in the 1958 mine disaster—but thousands of people from the outside send inquiries about the personal welfare of people in the area, and those within also seek to contract relatives and friends on the outside and to tell them about the situation. Following the Flint-Beecher tornado, about 115,000 inquiries were handled in six days. After the Texas City explosion which killed about 500 people and injured some 2,000 others, scores of inquiries were received about people who had never lived in that city but had simply not been heard from in years. One women wrote from Germany to locate relatives who had resided in Texas at some time but had not been heard from for 20 years.

A major factor which contributes to the communications overload following a disaster is the too early, ever-dramatic, inaccurate, and insufficiently specific information which the mass media put out.

Such reporting does not reassure, but arouses anxiety and urgency, often in people who have no real grounds for concern. In one instance, the fast "bulletin" reporting of an Air Force transport plane crash that killed only three men caused thousands of people to descend on the scene, creating a traffic jam that held up fire trucks and ambulances (Fritz and Matthewson, 1957).

While various kinds of external convergence are in the making following a disaster, internal convergence is creating problems within the disaster zone. There is mass movement of the injured, under their own power or assisted by others, to treatment centres, hospitals and clinics. There is a notable tendency to go to the best known hospital or clinic and to forget about others that

[3] FROM CONVERGENCE BEHAVIOR IN DISASTERS: A problem in social control, publication # 476. Disaster Study # 9, National Academy of Sciences—National Research Council, 1956, $2.00.

may be nearer or more approachable. In some cases, the less well known hospital has received virtually no victims while the better known has been grossly overloaded. At the same time, other survivors from the disaster zone together with people from the fringe area converge on hospitals, police stations, communication centres and morgues to take or seek information about the whereabouts and welfare of family members, relatives, or neighbors, or simply to offer their help or satisfy their curiosity. These convergers also tend to aim for the best known places to satisfy their motives.

Internal convergence, like external convergence, calls for the rapid establishment of control measures, with adequate communication between focal points of convergence and traffic posts. It is probably impossible to prevent some of the internal convergence, because the people who might institute such controls are also caught up in the immediate problems of rescue and care of victims. However, local emergency agencies might select personnel who would be least emotionally involved in a disaster and give them special training so that they could initiate appropriate control measures.

Mood and Morale in Disaster

Victims of disaster usually experience changes in mood and morale (see chapter 3) and these affect the manner in which the emergency social system develops and operates following a disaster. Knowing what to expect in this regard, we will be less surprised by what we observe, less inclined to think some reaction unduly abnormal, and we will be able to take account of such things in our planning.

The Disaster Syndrome. Wallace (1953, 1956) indentified a sequence of mood and emotional reactions which he called the *disaster syndrome.* The sequence occurs in four phases, each characterized by a different set of emotional reactions, moods, and attitudes.

(1) The shock reaction phase occurs immediately after impact of the disaster agent, survivors appear stunned, dazed, confused and puzzled, apathetic, and immobilized; they seem unaware of spoken words or of other events around them, and may wander about aimlessly or putter away at some irrelevant task. This is the shock reaction discussed in the previous chapter, and it lasts for minutes to hours. Apparently it may be prolonged by severe injury, probably because physical shock is added to the psychological condition. Survivors who suffer the shock reaction sometimes can do little for themselves and will usually be unable to help others and to participate in coordinated emergency tasks. The following quotation illustrates the problem:

> ...on the lawn was a boy about twelve years old and his father was sitting by him. His head and upper chest were swathed in bath towels and he had a cut, very deep, extending from the vertex going down behind the ear and into the neck down into the chest...and then I told his father.... 'Your boy is terribly hurt, but not dead. Go up to the...those houses up there, and get somebody with a car, and put him in a car and get him to a hospital immediately because he's very seriously hurt; or if you can find a phone, call somebody; or anything you can think of to do, up there where these people aren't hurt.' And he left, and I got the kid's brother, who was sixteen, I would say, to sit by him and watch him if he started to bleed or anything like that. And then I went around the corner and here was the kid's father, talking with somebody in a friendly, neighborly sort of way, reminiscing or something; and I said to him, 'Can you go? And he looked at me almost breaking down and said, 'No, I just can't leave, I just can't bear it'.... As I would encounter people who were not hurt I would say 'Help me move some of these wounded people out,' and they couldn't. I would talk with them and explain what I had in mind, and they seemed to react and respond in a normal way, and then just stand

there or wander away, and nod their heads and not do anything. I wouldn't say that they were dazed, but they were not functioning;...[4]

The proportion of survivors who exhibit the shock reaction is not known. It is likely that both its incidence and duration vary, depending on the intensity of the impact in terms of destruction and deaths, the unexpectedness of the disaster, the suddeness of impact, and the individual's past experience in or training for such situations. The last-mentioned condition is most important because it indicates that individuals who have had extensive training in an emergency role like that of soldier, policeman, physician, fireman, or clergyman will suffer shock and recover more quickly than others. However, a few individuals may produce surprises. In the Springhill Mine Disaster the two miners who recovered most quickly after the collapse of the mine were unlikely candidates; one had spent time in a mental hospital, and the other was a relatively young and inexperienced miner. However, the former individual was an experienced miner and this may have contributed to his equilibrium, while the latter had learned independence and resourcefulness through difficult years on a farm (Beach and Lucas, 1960). Fortunately, the problems created by shock reactions tend to be short-lived because most people recover from them within a few moments.

(2) The suggestibility phase of the disaster syndrome comes next and is one in which people show extreme suggestibility, altruism, and gratitude for help, they minimize personal losses and show more concern for others, they are anxious to help, and they are very responsive to suggestions or direction. This phase may last for several days, and the reaction does not produce particular problems. A neuropsychiatrist described this phase of the reaction as follows:

> ...I am not sure whether this was apathy or not; it seemed more as though these people felt themselves a very small part of some one great thing. It was not a real apathy. People were extremely patient—not demanding, and seemed not to be focused on themselves.... A twelve-year old kid asked to have others cared for first.... the severity of the experience has numbed them down....My usual technique of kidding and trying to cheer people didn't work. These people did not respond. Children were helping (kept them occupied) and very grave—behaving like "miniature adults," no fooling among themselves.... It was such a part of such a big thing, there was a transient loss of individuality and identification with something else.[5]

(3) The euphoria phase is the third stage in the disaster syndrome. In it survivors display a kind of euphoria, happiness and optimism. They identify with the whole community and are enthusiatic and energetic in their participation in common helping tasks. They exhibit a kind of high morale, presumably because of shared feelings of risk, gratitude, and ability to survive under trying conditions. The mood that prevails is illustrated by events following the Vicksburg tornado in the southern United States: During the emergency period, human values underwent a dramatic change as white helped black and black helped white. There were no distinctions in admissions to hospitals, black and white were hospitalized in the same rooms and gave their blood side by side. Whites opened their homes to injured negroes, calmed and nursed them. Three weeks later, at Christmas, the community spirit was still strong, as the city fathers sponsored a mixed white and black religious observance.

Fritz (1961) has suggested that a community-sized disaster may have certain positive or therapeutic effects in so far as people do not take advantage of the losses of others with anti-social behaviour, but forget their differences and social conflicts, and make personal sacrifices for the public good by turning their efforts to socially reconstructive and regenerated behaviour. This hypothesis would seem to be largely true

[4]From THE WORCESTER TORNADO: An Exploratory Study of Individual and Community Behavior in an Extreme Situation, Publication # 392, Disaster Study # 3, National Academy of Sciences—National Research Council, 1956, $2.50.

[5]From THE WORCESTER TORNADO: An Exploratory Study of Individual and Community Behavior in an Extreme Situation, Publication # 392, Disaster Study # 3, National Academy of Sciences—National Research Council, 1956, $2.50.

during the suggestibility and the euphoric phases of the disaster syndrome. Social differences and conflicts do dissolve, and survivors do emphasize the welfare of others and the public good. However, widespread altruism and community solidarity generally disappear after a few days or weeks and the fourth phase of the disaster syndrome takes over.

(4) The frustation reaction phase occurs as survivors finally become aware of their losses and the difficulties which the future holds, they become touchy and irritable, express feelings of resentment, and are more liable to criticize and complain—particularly against the officials and agencies who are now in charge of dispensing relief and compensation. The unity and cohesiveness that characterizes the community in the euphoria stage gives way, not only to the old divisions along race, religious, and other lines, but also to new divisions—between the haves and have-nots. Survivors compare themselves with other survivors in terms of losses and suffering and amount of assistance received. For instance, when the mining company gave each of the miners who had been trapped a week underground a ton of coal as a kind of compensation, one man was omitted. He was annoyed, asserting that he should not have been denied the coal simply because he had taken the initiative and got a job as soon as he recovered from his ordeal. Real or perceived inequities can lead to conflict and competition, and if there is a shortage of essential supplies and materials for reconstruction, serious problems of social control and constructive cooperation may arise in this phase after disaster.

In general, the sequence of mood and emotional reactions which we call the disaster syndrome would seem to be a fairly "normal" response to changing events, shock and disruption of behaviour due to the impact of the disaster agent, gratitude and concern for others as a response to the realization of one's good fortune in escaping safely, euphoria and community identification as a response to the awareness of a shared fate and escape from it, and finally, reaction to the frustations and deprivations of the damaging consequences of the disaster. The problem is to use those attitudes and reactions which are potentially helpful and constructive, and to counteract and manage those which create social problems.

Effects of Recurrent Emergencies. Recurrent emergencies or disasters generally result in more permanent changes in mood, morale, and interpersonal behaviour patterns within a community. Humorous and heartrending accounts of incidents, of suffering and heroism, become part of the folklore of the people. New practices and customs are developed to handle the emotional and material consequences of disaster. And community members develop a sense of pride in the fact that they live with danger and "can take it". Such a mood developed in beleaguered Britain, and especially bombed London, during World War II. A similar spirit, together with appropriate customs, evolved in the mining town of Springhill, Nova Scotia.

Springhill had a 90-year history of mining, marred by three disasters which took the lives of 239 men and buried 107 for several days. Another 193 miners died over the years in various accidents underground. As a means of cushioning the economic consequences of injury and death, a variety of institutions and practices were developed: a permanent disaster fund, six fraternal societies which provided widow and funeral benefits, an employee's relief fund, a check-off system for payment of taxes, medical and hospital services, church contributions, and funeral expenses—otherwise "who's going to bury you"? In addition to such institutions and practices, the people had developed a complex of attitudes involving fatalism mixed with humour, avoidance of thoughts of danger, and a certain pride in their dangerous occupation. Funerals were particularly important rituals, "the best" that could be provided. The people turned out in force, and were generous with wreaths and flowers. As one historian stated:

It may seem a strange matter for pride, but Springhill has always had time for its funerals, especially for those who have lost their lives in the mine... The Springhill Band, organized in 1879, served faithfully on these occassions with its beautiful funeral march filled with sweet high notes of hope and courage.[6]

[6] From *Springhill: A hilltop in Cumberland,* by Barbara I Scott. Halifax: Atlantic Provinces Library Association, 1926. Used by permission.

It is noteworthy, however, that the institutions, practices, attitudes, and morale which developed to handle recurrent emergencies in Springhill proved to be liabilities in some ways when the community faced a different kind of emergency, in the form of sudden mass unemployment as the mine was closed and sealed. Economic compensations and a cohesive community spirit made it difficult for individuals to take the initiative in finding new jobs or moving to new places. Thus practices and attitudes appropriate for repeated crises may hinder adjustment to a new kind of crisis or to a more stable and peaceful environment.

Social Disorganization

Under "normal" conditions, an organization or social system has the capabilities for handling the needs and demands of its members and subunits, that is, it has an appropriate distribution of jobs, positions, and role behaviours for supplying the routine needs of the people and for handling the sorts of emergencies which are relatively common in the group. When a disaster strikes, two things happen: first, the demands are suddenly increased, especially on the system's emergency personnel and resources as scores of crises occur simultaneously, and second, the capability of the system may be suddenly decreased as a result of the loss of personnel, material resources, communications facilities, and records. In addition, the system is further strained if the crisis is such as to divert surviving members from their occupational roles and to focus their whole concern and attention on personal survival and care of their families. Because a disaster typically causes a drastic shift in the demand-capability ratio, the social system tends to collapse and the scene is one of apparent disorganization as individuals seek to handle the emergency as it effects them personnaly, with little regard for their organization roles and the overall situation. The problem then becomes one of re-establishing some semblance of a social system that will facilitate dealing with the many emergency problems.

Emergency Problems in Disaster. The emergency tasks to be handled following a disaster include the following: (1) rescuing victims and dispatching the injuring to medical centres; (2) providing psychological first aid and consoling victims; (4) organizing and directing systematic research; (5) clearing roads; (6) controlling traffic; (7) establishing and maintaining communications; (8) protecting property; (9) keeping unauthorized persons out of the area; (10) giving information to relatives and friends of victims; (11) bringing in and distributing equipment and supplies; (12) setting up a pass and identification system; (13) evacuating the area if necessary; (14) providing food, clothing, and shelter for victims and emergency personnel; (15) compiling records of the damage, injuries and deaths; (16) disposal of the dead; and (17) coordinating all of these activities.

The Emergency problems in most disasters are handled in a rather haphazard and disorganized fashion, at least for a period ranging from hours to days. Nevertheless, the emergency problems *are* handled and an emergency social system *does* evolve. Survivors often do much of the rescue work themselves as well as carry out some first-aid treatment and move injured victims to hospitals. Helpers move in from the fringe and filter areas and assist with these primary tasks. Local emergency organization personnel often pitch in with the survivors in doing rescue work initially, but gradually start to assume their normal occupational roles, whether that of fireman, physician, or minister. Small groups come together to attack common problems. However, it usually remains for emergency organizations from outside to come in and establish some kind of an adequate communication system, and to provide an overall appraisal and general coordination.

The three main problems in the development and functioning of an adequate emergency social system are: communication, coordination and control, and authority.

Communication. The breakdown of communications in disaster is one of the main causes of the collapse of the social system. Without some kind of adequate communication there can be no exchange and sorting of information, cooperative and group efforts are impossible, and anxiety and uncertainly cannot but prevail. The inevitable result is disorganization and confusion as individuals and small groups act largely without reference to what others know or are doing and without knowledge of the overall situation and its priorities.

In most disasters the re-establishment of adequate communications has been rather slow, for several reasons. *First,* the survivors and early helpers from adjacent areas generally become preoccupied with immediate problems of rescue and assistance and forget about the value and importance of communication. *Second,* there is often a serious lack of equipment and plans for re-establishing communications, even among emergency organizations which move into the stricken area. *Third,* there is nearly always a lack of overall planning and direction from a common headquarter, for hours and even days. Emergency organizations from outside have seldom solved this problem as quickly as might have been expected, presumably because no adequate and practised common plan had been developed before the event. *Fourth,* adequate procedures for collecting, sorting, storing, dispatching, acknowledging, and integrating relevant information have not been used. Each of these steps in the communication of information have not been used. Each of these steps in the communication of information is vitally important. The information which this or that emergency organization receives is too often a function of chance factors such as someone getting a message through either by word of mouth or over intact telephone line. The information usually has a note of urgency, and in some instances an emergency organization has worked for several hours in an area other than that which bore the brunt of the impact. Getting registration information from victims is sometimes handled in an inefficient manner. For instance, following the tornado in Wesley, the Red Cross caused considerable delay and mounting resentment by insisting on many details as they registered victims and allocated them to hospitals and shelters. The civil defence organization, on the other hand, required a minimum of information and as a result got many more people registered. However, their information was inadequate for a master list and for the receipt and dispatch of information to hospitals, to outside inquirers, and others. In other instances, information received has not been recorded and sometimes not even passed on to the relevant personnel. Finally, the indiscriminate dispatch of information and requests for assistance to the outside world have led to formidable problems of convergence of people and materi[illegible].

The following measures would facilitate the development and functioning of adequate communications in an emergency situation:

(1) It would be important to establish a common information centre in the field headquarters that is responsible for overall coordination and control of the emergency operation. The kind of information which it will accept from personnel, groups, and control posts in the disaster zone should be planned in advance, with provision for flexibility. It should have the office equipment, personnel and other facilities necessary for sorting and storing relevant informa-