Mass Emergencies 1 (1976) 125–130

ACCOMMODATION TO THREAT*

Stephen B. Withey

Institute for Social Research, University of Michigan, Ann Arbor

Because of the complexity of my subject, it would perhaps be helpful if I were to describe the breadth of its area. First, however, I would like to make a few preparatory comments about what I think we can and cannot say in this area – some of these comments are about a set of categories, or a checklist, that might be applied to considerations about accommodation to a threat. Essentially, I will, perhaps, leave you with the notion of the complexity of the area rather than the depth of our knowledge of it.

I think that we can make probabilistic predictions about what a person will do in response to a threat, and that we can make them fairly accurately. I say this in the context of probability prediction about the behavior of a person encountering a series of possible threats. On some occasions, we might be able to point to conditions when this kind of prediction would not be true, but most of the time we would be right. I think that we can make predictions about the behavior of large groups of people, particularly when there are some organizational or homogeneous factors that facilitate prediction. We may not always be right; there will be some deviance, certain inaccuracies, but probabilistically we will do quite well.

We may not always be able to predict the reactions of a person at a particular moment in time, but I think that we can predict sequences of reaction. In other words, given this event, what will happen next? Given that event, what will happen after it? Our estimates are particularly good, I think, when attempts to accommodate a threat meet with failure. When exposed to a threat, you often try something that does not work, so you do something else; if that does not work, you do something else. Failure itself becomes threatening, in addition to the situation you are trying to deal with.

Incompetence at handling the threat becomes a compounding factor, and we can predict the sequence of reactions. What we cannot predict is the pace at which such sequences will move. We do not know how long a person will persist in trying to do one thing, but we do know that after he decides that his effort is going to fail, he will then begin a certain alternative effort. So there is some probability of predicting a general time for this kind of change in coping with a threat.

We also cannot predict the success of his accommodations to threat. He may try one thing, and, if it fails, we know what he will do

*This paper was originally presented at an Emergency Operations Symposium, sponsored by the System Development Corporation, Santa Monica, California, in 1966. The editors of *Mass Emergencies* have felt that the article is of lasting value, and that it should be made available to the community of disaster researchers, planners and practitioners in published form despite the time-lapse. We are grateful to the Coordinator of the Symposium, Dr. Robert C. Bricston (Michigan State University) for making this work available to us for publication.

next; but his first effort might work. There are many factors, like weather, what other people do, luck, and these kinds of things, that make a particular accommodation to a threat functionally correct. This, too, can interfere with prediction because we do not know for sure what is going to work in the context of the hazard or danger.

As a psychologist, I have difficulty in explaining adaption to a threat in a psychological sense. This is partly a matter of vocabulary. I do not want to use the jargon of psychology because I think that psychology itself is changing. I think that some of the things we have acquired as knowledge during the last twenty-five years or so are interesting, but I also think that we need a background of information before we can explain them.

I will not talk about the problems of social reaction to threat – social organization, disorganization, reorganization, or rigidity of social response. I will not talk about the reactions to threat of people who have to make decisions – who have to lead – and who, because of this, have to treat the threat impersonally. It is not a threat to them. It is a threat to what they are responsible for. We have experts who adopt this role. For example, we have lawyers who are not particularly sensitive to threats to their clients. To them, it is a legal game; they know how to play it and are not emotionally involved with the problem of the poor defendant's reaction. The surgeon goes through a period of two, three, or four years when he learns not to be particularly sensitive to the feelings of his patient, at least to a certain extent. He could not carry out his job if he did not regard it as a technique, a technology requiring certain behavior on his part. Policemen in general have to regard things as black or white because they have to make decisions based on such judgments. I shall not discuss this kind of reaction to threat.

I shall not take a psychiatrist's or psychologist's standpoint in the sense of trying to distinguish fears that may be rational from phobias that may be irrational. Some people may regard white rats running around the floor as a threat, but I am not going to discuss the origins of that kind of thing or the reactions to it. Nor will I go into early childhood experiences and how they lead to deviation in some situations. These subjects are interesting and exotic, but I am going to be more general. I shall not talk about accommodations to threats to other people. I will assume that the person I am talking about is in a threatening situation himself. Nor will I talk about adjustment to surviving threat, although some interesting research is being done on this aspect of accommodation to threat – for instance, the research on the people who survived Hiroshima, their attitudes toward death, and the values that go with surviving.

What I am going to talk about begins with an assumed situation of threat. I will show, in a diagram, some reactions to the threat and give some notions of the variables and factors that must be taken into account if we are going to talk about such situations meaningfully.

In our lives, threat is so pervasive and ever present that it is obvious that we adjust and accommodate to it all the time. There are threats to us and also to our extended selves in terms of what we value in our environment. The mass media are filled with warnings, from threats of cancer from smoking and the hazards of pollution, to threats of dire consequences if we do not fill out our income tax forms correctly, or buy safety belts, or raise our children properly. We adjust to many of these without much effort; some cause us concern, others we ignore.

A great deal has been written on this topic – the points of view of writers in the fields of physiology, experimental psychology, social and clinical psychology, sociology, and so forth. It is also the topic of much that is called military science, and even political science and foreign affairs. There are numerous reviews of this material and I am going to assume that much of it is already familiar.

I will begin by sketching out a diagram of the parameters of the situation that are involved in reaction to threat. They are not exhaustive but they do represent a distillation of those variables which seem to be involved during the actual processes or stages of reaction. What is largely left out are those variables that have to do with the past experience of the individual, but I believe that these have some influence over the variables I have included.

Let us start with a threat that will become apparent through some form of information transmitted to the individual. This information must be understandable, and at least to some extent, credible. If it is not believed, there is no accommodation. If it is a very distant threat, like death, it can be dismissed with equal efficiency. If it is absolutely inevitable, one can do nothing but try to cope with one's own fear reactions.

These statements already describe three important parameters of information about a threat: its nature, its probability, and the intensity of fear aroused within the individual. By the nature of the threat I mean, in common sense terms, a description of the hazard. Any such hazard carries with it an estimate of the likelihood of occurrence in space and time, an estimate which will vary among individuals and is obviously subject to distortions of exaggeration or minimization. Whatever the consequent mix of threat, there is a certain degree of fear aroused. This is a physical reaction that will vary according to individuals, and will have to be dealt with, by the individual, as an increment to the threat.

Any rational person will, at this point, begin to think of, or inquire about, or look for some form of behavioral adaptation. In many instances this cognitive behavior is tied in with the definition of the threat and in many ways indistinguishable from it. In some cases a habitual response immediately removes the threat. In other cases behavior has to be planned, and in some cases behavior has to be learned or instructions have to be sought. Whatever the information available to the individual, information about adaptation has the parameters of the nature of the behavior required, its probability of effectiveness in coping with the hazard, and the effort required with its considerations of consequences and cost.

Put together, these variables describe the various perspectives of a threatening situation. They describe the degree and impact of danger. The somewhat rational appraisal describes the effectiveness of protective measures. The interaction of estimates about the suggested adaptation describes the motivational state of the

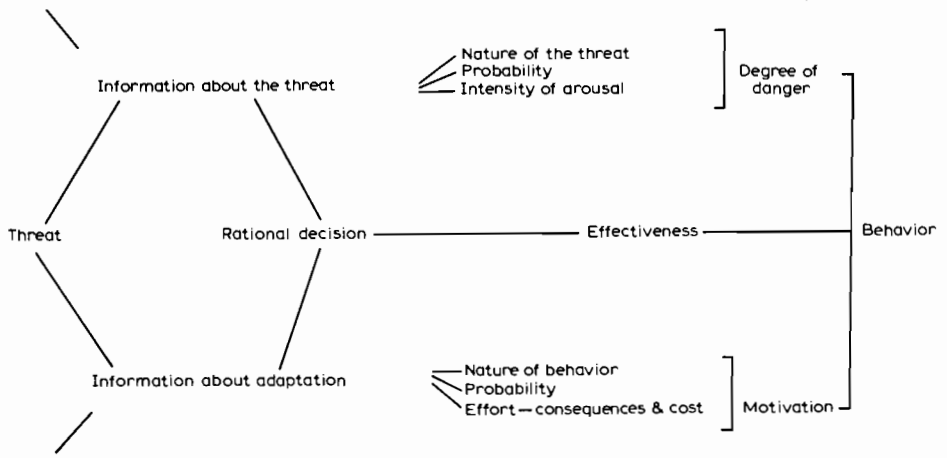

Fig. 1. Diagram of factors influencing reaction to threat.

individual. Together these factors tend to account for the behavior of the threatened individual. If we schematize these factors, we get the diagram as shown in Fig. 1.

It might be useful to make some comments on what we know about reactions to threat. The comments should provide an understanding of the function of some of the variables, although they will not offer a summary of what is known about the field of reaction to threat.

We know that people react to different threats with varying evaluations. Some people are particularly afraid of certain animals, or of social events such as making speeches, or of specific environments such as heights. People differ in their reactions to what is strange or curious or horrible. People differ in their ego involvement in a threat depending upon whether they own a house threatened by a flood or whether family members are involved in a danger, or whatever system of values tends to engage particular and unique feelings of involvement with what is threatened.

We know that people tend to underestimate the probability of threatening events. Often this feeling is described as a personal feeling of invulnerability. Any threatening message has to surmount this feeling of "this doesn't apply to me." There is, of course, a certain amount of truth in such a perception, since most of us have successfully avoided a great number of threats during our lifetimes. It is sobering when one sees an accident or comes very close to danger, but this mood does not last. In some areas where our experience has not been so successful, we do maintain a sort of hypervigilance and are particularly sensitive to cues of danger. As a matter of fact, in such areas we may distort probabilities so as to exaggerate the likelihood of a threat; but this flip-flop from optimism has very clear antecedents.

People also differ in the degree to which threat arouses physical fear. Our autonomic nervous systems react according to different degrees of sensitivity. Some of us walk around with chronic levels of anxiety that do not provide us with a needed handicap in the race to avoid states of great stress and intense fear.

It should also be noted that a certain degree of arousal is necessary for any response to be developed. People do not generally respond to purely cognitive recognitions of threat unless their job requires that kind of behavior. A certain degree of emotional arousal focuses attention and consideration and maintains a state of alertness long enough for some behavior to be developed. However, it is also true that intense arousal may be more distracting than facilitative. Extremely high emotional arousal interferes with adaptive behavior and is confusing. Such emotions become so preoccupying that all attention has to be given to them and reaction to the threat that precipitated them is suspended.

The work of Janis and Feshbach (1953) on this topic is the classical experiment in which intense arousal caused by the horrors of tooth and gum disease led to little adaptive behavior. Haefner (1956) found the same results with horrible presentations on fallout hazards from H-bomb testing.

Janis and Leventhal (1965) have come up with an explanatory model that tends to account for most of the data obtained on experiments of this type. They propose that arousal increases the probability of acceptance of a threatening message up to a point at which the facilitating effects of arousal are more than the interfering effects. After such an optimum point, further arousal is inhibiting and confusing. However, such an optimum point is not a sign on a continuum of intensity of fear, but is an optimum point for a particular kind of threat! Other threats may well have a different optimum point of arousal. The situation can be shown as the diagram in Fig. 2.

For situation "A" a moderate degree of arousal is optimal, but for situation "C" a much greater degree of arousal is optimal because of the greater threat that has to be accepted. Such a model would stipulate that no single degree of arousal is helpful or disorganizing

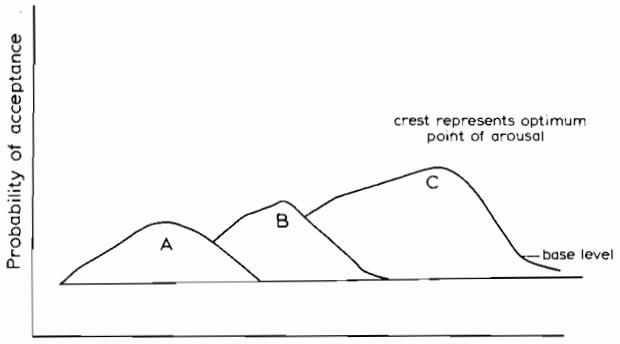

Fig. 2. Degree of fear arousal.

but that the location of the optimum point of the curve will have to be determined for each class of cases.

This consideration of the optimum point of arousal implies that we do not react very adaptively to little fears when we get very emotionally aroused, nor do we react adaptively to big fears with only moderate emotional arousal. What seems to be implied is that a threat must somehow be validated in terms of emotional arousal for it to be accepted in any terms that require behavior or adaptation.

This notion of balance also carries over into information about adaptive behaviors. We are not likely to behave defensively without some probability of success. The nature of a threat, as a matter of fact, is intimately tied in with our ability to do something about it. Pneumonia, for instance, is much less of a threat now that we have highly efficient drugs for curing it.

Adaptive behavior is much more likely to occur if a person is clear as to what adaptive behavior is required. If information about suitable behavior is vague or unclear, it is, to that degree, less likely to occur. Also, if there is not some clear connection between the threat and what one does about it, the protective or defensive behavior is likely to be inhibited. It is difficult to assay the probability of effectiveness of adaptive behavior unless one has some clear insight into the strategy of the adaptive behavior proposed.

People are also prone to be economical in their expenditure of energy required for adaptive behavior. Small threats require only small expenditure. The commitment of costly resources requires an even more costly alternative to their non-commitment. In experimenting with adaptive behaviors, there is a sequence from attempts at finding a cheap solution to a more costly one if the initial attempts do not succeed in extricating the threatened person from the precipitating situation of stress. It is analogous to the increasing commitments of a nation faced with hostile action from another nation in the escalation toward all-out war. It is also analogous to the increasing sacrifices of physical defenses against physiological stress.

The actual occurrence of adaptive behavior, however, requires more than just a credible threat and the existence of some adaptive behavior. Not everybody uses seat belts. Not everybody who could get an injection against flu takes the opportunity. Many who think that lung cancer has something to do with smoking refuse to stop smoking.

In an experiment, the value of tetanus injections was told under various degrees of awareness of the threat of tetanus. Those with more than moderate but less than extreme arousal found the message credible and acceptable. This was in accord with the model just described. However it was the information on follow-up – where to go, when to go, what having an injection meant, etc. – that made the difference in whether people got tetanus injections or not. Credibility of the message did not lead to behavior unless the supportive follow-up explaining adaptive behavior occurred. Similarly, one can point to several experiments in which clarity of information, personal commitment to do something, public resolve, group activity, etc., all act as supportive factors in gaining a follow-through to adaptive behavior.

There are also ways of life, training, and even personality factors that lead one person to behave rationally and deliberately more often than another. The factor that has the highest

correlation with seat belt usage is degree of education. Rehearsal and training tend to increase the probability of certain behavior occurring. An instructional set focuses attention on some behaviors more than on others. Further, particular roles in a disaster situation lead easily to certain regular, role-demanded, types of behavior for firemen, soldiers, policemen, physicians, ministers, etc.

Finally, it might be worthwhile looking at some of the factors that seem to lead to ill-adapted behavior. They are the opposites of many of the factors that have already been mentioned as facilitative factors in developing adaptive behavior. Four factors seem to be prominent in the literature: (1) Perceived entrapment, which might be interpreted as a sudden worsening of the threatening situation and the probabilities for effective action, is certainly conducive to panic and acutely disorganized behavior. (2) Separation from one's family or primary group is also disorganizing. Individuals often behave with what seems like disregard to their own adaptation in conditions where they cannot get to loved ones who are in danger. (3) For many people, witnessing injury and death is acutely disturbing and arouses such acute emotional response that it is overpowering. (4) The phenomenon of the "near-miss," which is a mixture of the factors of emotional arousal and sharp change in estimated probabilities of threat and defense, along with a feeling of guilt at having been spared from emotions of bereavement, often turns out to be completely disorganizing.

If a concept, such as that of "accomodation to threat" is to be discussed, and used, with the ultimate aim of pointing to practical implications, careful analysis of the concept and of its component parameters is required. Only then can it serve as a spring board for the derivation of more practical ends to which it can be put. In this paper, I have sought to perform such an analysis of one central concept in disaster research, "accomodation to threat".

REFERENCES

Haefner, D. (1956). "Some effects of guilt-arousing and fear-arousing persuasive communications on opinion change." Technical Report No. 1. Office of Naval Research, contract no. Nonr. 668 (12).

Janis, I.L., and Feshback, S. (1953). "Effects of Fear-Arousing Communications." *Journal of Abnormal and Social Psychology*. 48: 78–92.

Janis, I.L. and Leventhal, H. (1965). "Psychological Aspects of Physical Illness and Hospital Care," pp. 1360–77, in B. Wolman (Ed.) *Handbook of Clinical Psychology*. New York: McGraw-Hill.