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Some Consequences of Crisis Which Limit the Viability of Organizations

This paper proposes that crisis can be denoted with a specific meaning applicable to organizational behavior. A tentative series of interrelated propositions suggests how a crisis in an organization's external environment can activate behavior within the organization which hinders its response to the crisis. The propositions are illustrated with material from a range of political and nonpolitical studies. Some attention is directed to possible means of making the eight principal variables operational.[1]

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THE initial interest in examining crises resulted from the observation of recurrent crises in contemporary international relations. It became apparent, however, that in its reaction to external crises a foreign office or other agency (i.e., an international organi-

[1]The author wishes to acknowledge his appreciation to the members of the International Relations Program at Northwestern University for their comments on an earlier draft of this paper, particularly the senior members: Professors Richard Snyder, Harold Guetzkow, James Robinson, Chadwick Alger, and Lee Anderson. Professor James W. Gladden of the University of Kentucky also gave the author the benefit of his insights.

zation) operating in the international arena shared certain characteristics with the generic class of formal or complex organizations.[2] In a crisis an organization may initiate far-reaching consequences both for its environment and for the organization itself. The internal effects of a crisis on an organization are diverse and, on occasion, contradictory. Richard C. Snyder[3] has outlined two polar effects that an external crisis can bring about in an organization: The crisis may be associated with the closer integration of the organization, the appropriate innovations for meeting the crisis, and the clarification of relevant values, or at the other extreme, it can lead to behavior which is destructive to the organization and seriously limits its viability.

A thorough exploration of organizational crises should account for the mechanisms in both polar types. The present inquiry, however, is confined to a fragment of the total response patterns, considering only a small, manageable number of variables associated with processes which are dysfunctional to the organization's goals and the satisfactions of its personnel.

To explore how certain responses may hinder an organization's viability, the paper will offer a series of interrelated propositions, or a model. As a demonstration that the propositions occur in the "real" world, some empirical evidence from organization literature will be offered. Both the political and nonpolitical case studies, as well as the occasional experimental findings cited, should be considered as illustrative materials rather than as conclusive evidence. Treatment of the propositions to ensure the comparability of the relevant aspects of each case and the exclusion of plausible alternative hypotheses must await more systematic research. This paper attempts to serve as a guide for such an endeavor. A brief discussion of the definition of crisis will be followed by propositions and illustrative data and by possible operational indices of the variables involved.

[2]The term "crisis" is not uncommon in organization literature. At least six selections in a recent reader used crisis. See Amitai Etzioni, *Complex Organizations* (New York, 1961), pp. 154, 182, 192, 203, 359, 399. There is, however, a dearth of material using crisis as a theoretical variable in the study of organizations.

[3]"The Korean Decision (1950) and the Analysis of Crisis Decision-Making," paper presented at the Conference on Decision-Making in Crises, Stanford University, January 12–13, 1962.

THE CONCEPT OF CRISIS

Studying crisis phenomena provides an opportunity to examine an instrument of both organization and societal change, highlights some of the essential features of organizational and decisional processes, and differentiates them from less vital factors under the extreme conditions associated with a crisis. Crises seem to appear frequently enough to permit systematic study and are of such a nature that they not only *permit* but also *warrant* investigation. As noted, crises are devices of change—change that may be associated with extreme behavior. Referring to the inordinate nature of crises in international politics, Charles McClelland has suggested that they "are perceived vividly as the avenues that are most likely to lead into extensive or general nuclear war."[4]

In spite of the potential value of studying crises, little distinction has been made between the concept of crisis and a number of seemingly related terms (e.g., tension, stress, anxiety, disaster, and panic). Crisis has been separated from some of these other concepts by the concept of stimulus and response.[5] In this conceptualization a crisis is conceived as a stimulus to which certain kinds of behavior—like anxiety or panic—are possible responses. Some of the distinctions appear to be, in part, the usage of different disciplines. Psychologists are inclined to employ concepts such as anxiety, threat, or stress;[6] sociologists and political scientists use such terms as panic and crisis.[7] An interdisci-

[4]Decisional Opportunity and Political Controversy: The Quemoy Case, *Journal of Conflict Resolution,* 6 (1962), 211. For an author who defines political and economic crises as extreme turning points, see Kenneth E. Boulding, *Conflict and Defense* (New York, 1962), pp. 250–251.

[5]For example, see P. B. Foreman, Panic Theory, *Sociology and Social Research,* 37 (1953), 300; and R. T. LaPiere, *Collective Behavior* (New York, 1938), pp. 437 ff.

[6]See R. S. Lazarus, J. Deese, and S. F. Osler, The Effects of Psychological Stress upon Skilled Performance, *Psychological Bulletin,* 49 (1952), 293–317; F. E. Horvath, "Psychological Stress: A Review of Definitions and Experimental Research" in L. von Bertalanffy and A. Rapoport, eds., *General Systems Yearbook* (Society for General Systems Research; IV, Ann Arbor, 1959), pp. 203–230; and also J. T. Lanzetta, G. R. Wendt, P. Langham, and D. Haefner, The Effects of an Anxiety-Reducing Medication on Group Behavior under Threat, *Journal of Abnormal and Social Psychology,* 52 (1956), 103–108.

[7]Sociological examples might include Foreman, *op. cit.;* R. I. Kutak, Sociology of Crises: The Louisville Flood of 1937, *Social Forces,* 17 (1938), 66–72; E. L. Quaran-

plinary group has focused on the concept of disaster.[8] Recently some efforts have been made to describe crisis in terms of an occasion for decision.[9]

No attempt is made here to link the term with all possible related terms, but a working definition of crisis will be formulated along three dimensions. An organizational crisis (1) threatens high-priority values of the organization, (2) presents a restricted amount of time in which a response can be made, and (3) is unexpected or unanticipated by the organization. Both the involvement of major organizational values and short decision time have been indicated as aspects of crisis in several definitions of the concept.[10] Fewer definitions have incorporated the element of surprise or the unanticipated quality of a crisis situation. The notion of programmed versus unprogrammed activity may be a component of the lack-of-anticipation dimension, but as a foreign policy planner has observed, it is not possible to have a program for every contingency, since "the number of theoretically possible crises in the years ahead is virtually infinite."[11] The lack of a

telli, The Nature and Conditions of Panic, *American Journal of Sociology*, 60 (1954), 267–275. The long-standing use of crisis by political scientists is reflected in E. H. Carr, *The Twenty Years' Crisis, 1919–1939* (New York, 1939); and in the recent interaction approach found in C. A. McClelland, The Acute International Crisis, *World Politics*, 14 (1961), 182–204.

[8]See Instituut voor Sociaal Onderzoek van het Nederlandse Volk, *Studies in Holland Flood Disaster 1953*, I–IV (Washington, D.C., 1955); and G. W. Baker and D. W. Chapman, eds., *Man and Society in Disaster* (New York, 1962).

[9]H. B. Williams, Some Functions of Communication in Crisis Behavior, *Human Organization*, 16 (1957), 15–19; T. W. Milburn, "Design for the Study of Deterrence," unpublished paper, Program of Graduate Training and Research in International Relations, Northwestern University (Summer, 1961); J. A. Robinson, "The Concept of Crisis in Decision-Making," in National Institute of Social and Behavioral Science, *Series Studies in Social and Economic Sciences* (Symposia Studies Series No. 11; Washington, D.C., 1962); and Snyder, *op. cit.*

[10]High-priority values are mentioned by Lasswell, "Style in the Language of Politics," in H. D. Lasswell, N. Leites, *et al.*, *Language of Politics* (New York, 1949), p. 23; and Williams, *op. cit.*, p. 15. A. R. Ferguson refers to an "action which will be costly" to a group, but confines crisis to a situation in which the group can act to reduce its net losses. See his *Tactics in a Local Crisis* (Memorandum RM-3034-ISA, Rand Corporation; Santa Monica, Calif., September, 1962), p. 4. Limitation on time available for response is suggested by R. L. Hamblin, Group Integration during a Crisis, *Human Relations*, 11 (1958), 67. Both dimensions are cited by Milburn, *op. cit.*, p. 5; Robinson, *op. cit.*, p. 6; and Snyder, *op. cit.*, pp. 6, 11.

[11]G. A. Morgan, Planning in Foreign Affairs: The State of the Art, *Foreign Affairs*, 39 (1961), 278. For a detailed consideration of the distinction between

programmed response, however, does not necessarily imply that the contingency has not been at least recognized. As used here, "unanticipated" implies not only the lack of a program, but lack of prior recognition of the possibility of the event occurring. An assertion of the importance of this dimension is made by Richard LaPiere who states that only when phenomena are unpredictable can they be defined as crises.[12]

It is possible that the three dimensions can be varied to yield different types of crises. In surveying the literature on the apparently related concept of disaster, Guetzkow[13] has concluded that the variables frequently are identical with those used in general psychology and sociology. The distinctive quality is that the values assumed by variables in disaster research often fall outside the limits of variable intensity incurred in other studies. Lanzetta's study of stress variation in experimental groups[14] may be indicative of the kind of exploration that could be done with the dimensions of a crisis. For the exploratory purposes of this paper, however, no effort will be made to compare the extent to which each dimension is present in the various materials used in supporting the propositions.

The relationship between the proposed working definition of crisis and seven other variables will be outlined in the following pages. An over-all view of the linkages among these variables is diagramed in Figure 1. The propositions suggested by the lines on the diagram can be broken into three subareas: (1) direct consequences of crisis stimuli, (2) stress on authority units and its transfer, and (3) organizational response to transfer.

CONSEQUENCES OF CRISIS STIMULI

In the present model four variables are represented as being directly dependent upon the occurrence of a crisis stimulus.[15]

programmed and unprogrammed, see H. A. Simon, "The Role of Expectations in an Adaptive or Behavioristic Model," in M. J. Bowman, ed., *Expectations, Uncertainty and Business Behavior* (New York, 1958), pp. 49–58.

[12]*Op. cit.*, pp. 438–439; on this dimension see also, Kutak, *op. cit.*, p. 66.

[13]H. Guetzkow, "Joining Field and Laboratory Work in Disaster Research," in Baker and Chapman, *op. cit.*, p. 339.

[14]J. T. Lanzetta, Group Behavior under Stress, *Human Relations*, 8 (1955), 32–33.

[15]The use of "crisis stimulus" in this paper does not refer to a means of distinguishing crisis from possibly related terms. "Crisis stimulus" and "crisis response" or reaction will be used to separate aspects of the same concept.

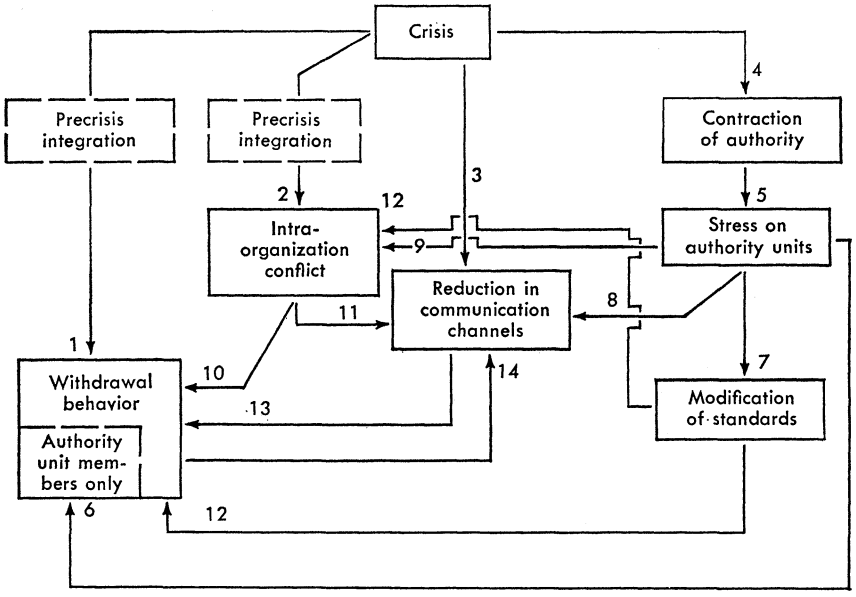

Figure 1. Summary diagram of relationships between crisis and selected organization variables (the numbers correspond to numbered propositions in text).

They are represented in four propositions, which are stated and illustrated in the discussion which follows.

Proposition 1. As precrisis organizational integration decreases, a crisis will increase the tendency of members of an organization (both individuals and suborganizational units) to exercise withdrawal behavior. The withdrawal variable in this proposition is the terminal dependent variable considered in this model, but the major portion of the system suggests a series of intervening mechanisms. In effect, the first proposition is a short-circuiting of the model. As employed here, "withdrawal behavior" refers to more than the physical activity of "leaving the field." Operational measures of withdrawal might include the reduction in rates of production, increased absenteeism and employee turnover, increased subunit failure to meet deadlines, and various attitude measures of dissatisfaction. It is hypothesized that the short cut represented by Proposition 1 is more likely to occur if organizational integration is low prior to the crisis. Integration (repre-

sented by the broken-line box in Figure 1) is used here as the sum of all forces operating to keep units in the organization performing their tasks for the attainment of organization goals.[16] There is a close relationship between integration and withdrawal behavior, which might be defined as the negative aspect of integration. Thus, high precrisis organizational integration could be characterized as having low tendencies toward withdrawal behavior.

A. W. Gouldner found evidence of the withdrawal mechanism operating in a plant where a crisis occurred in the form of technological innovations and where the integration between employees and management had been previously strained.[17] A Senate investigation discovered a crisis in the United States Patent Office resulting in part from increases in the complexity of search procedures and from a large backlog of applications. The subcommittee report on the situation observed that "the turnover of trained personnel becomes more acute each month."[18] Indications of similar behavior are reported in a small-group study in which the group leaders withdrew under extreme stress[19] and in a proposition based on a survey of disaster studies.[20] Despite the tendency of the illustrations to suggest a direct linkage between crisis and withdrawal, it is possible that this is a spurious effect of a more complex relationship which the research efforts did not uncover.

Proposition 2. As precrisis organizational integration decreases,

[16]"Organizational integration" may be somewhat comparable to what Peter M. Blau and W. Richard Scott have called "group solidarity"—a concept broader than the notion of cohesion. See their *Formal Organizations* (San Francisco, 1962), pp. 108–109. Their term was avoided in this presentation to emphasize the applicability of the term used to an entire organization and not only to small groups.

[17]*Wildcat Strike* (Yellow Springs, Ohio, 1954), p. 82.

[18]Report to United States Senate Committee on the Judiciary by its Subcommittee on Patents, Trademarks, and Copyrights, *Patents, Trademarks, and Copyrights* (87th Congress, 1st sess. as extended, pursuant to Senate Resolution 55 [Washington, D.C., May 9, 1962]), p. 2.

[19]E. P. Torrance, "A Theory of Leadership and Interpersonal Behavior under Stress," in L. Petrullo and B. M. Bass, eds., *Leadership and Interpersonal Behavior* (New York, 1961), p. 108.

[20]N. J. Demerath, Some General Propositions: An Interpretative Summary, *Human Organization,* 16 (1957), 29.

a crisis will tend to intensify any conflicts existing prior to the crisis. As in Proposition 1, it seems important to identify one intervening variable—the level of precrisis organizational integration. Following the nationalization of British hospitals, top administrators gained increased authority over doctors. This change in their authority relationship led to conflict.[21] Summarizing his survey, N. J. Demerath states "pre-disaster dissatisfactions. . .are heightened or triggered in the disaster situation."[22] In a small-group experiment, groups participated in a game in which time restrictions were imposed.[23] A crisis was induced in one-half the groups by unannounced changes in the scoring rules midway through the game, thus making successful solution of the problem (high scores) unattainable. Under such circumstances, group conflict increased. One demonstration of this change was the difference between the control and crisis groups on verbal antagonism (significant at .0002 level). Another investigator, using sociometric measurements, found that the stability of group affective linkages decreased under stress, and also found other indicators of group conflict.[24]

Proposition 3. With the introduction of a crisis, the total number of communication channels used for the collection and distribution of information will be reduced. This proposition suggests the relationship of communication channels to crisis. The aspect of communication used in this proposition deals with the network that connects the information transmitter and receiver. Essentially, a communication channel is a routinized means of exchanging information, ranging from a frequent pattern of face-to-face contacts to the employment of some mechanized transmission system (e.g., written orders, telephone, commercial mass media).

In the study of communication networks in military organizations it has been discovered that in combat there is a tendency

[21]See C. Sofer, Reactions to Administrative Change, *Human Relations,* 8 (1955), 313. Whether this nationalization constitutes a crisis in accordance with the proposed working definition is open to question. High-priority values were involved and the time for response was comparatively short, but was it unanticipated? It might be argued that the details for executing the new regulations were unanticipated by the hospitals, therefore consistent with the definition.

[22]*Op. cit.,* p. 29. [23]Hamblin, *op. cit.,* p. 72. [24]Torrance, *op. cit.,* p. 107.

for communication "to decrease and break down."[25] This phenomenon appeared to occur at a number of different levels from organization to individual. A psychologist working in another governmental department found that there was a reduction in the number of people consulted in a problem-solving task when time pressures increased.[26] Based on data from a series of interviews, a chi-square test indicated that this relationship (time pressure and reduction in consultation) was significant at the .02 level. If the number of personnel consulted can be taken as an index of the communication channels involved, then this might be cited as partial support for Proposition 3. If public information about the U-2 aircraft brought down inside the Soviet Union in 1960 was accurate, the United States government was confronted with a crisis in which some evidence of closure of communication channels appeared. A selected group drawn from the National Security Council is reported to have met with the President, and a decision reached that the prearranged story should be invoked with all statements issued by the Department of State. A critical delay in relating this decision to the White House press secretary, however, resulted in an announcement that bulletins would be released by the State Department and the National Aeronautics and Space Administration (NASA). Communication channels between the White House and NASA, and between NASA and the State Department are also reported to have been defective.[27]

Before exploring the next proposition, the reduction in communication channels in an organizational crisis must be reconciled with apparently contradictory reports of information overload in a crisis.[28] The proposition in this paper involves the

[25]M. Janowitz, *Sociology and the Military Establishment* (New York, 1959), p. 76.

[26]D. G. Pruitt, "Problem Solving in the Department of State" (unpublished MS, Northwestern University, Evanston, Ill., 1961), p. 60.

[27]See D. Wise and T. B. Ross, *The U-2 Affair* (New York, 1962), pp. 78–87; and W. H. Blanchard, National Myth, National Character, and National Policy: A Psychological Study of the U-2 Incident, *Journal of Conflict Resolution,* 6 (1962), 143–148. Attention should be directed to the fact that a programmed response had been prepared for the contingency that a U-2 might be lost in the USSR. Some debate occurred, however, on whether the "cover story" should be used. The other dimensions of the crisis definition appear to have been present.

[28]For references to communication overload in a crisis, see Williams, *op. cit.,* p. 17;

number of communication *channels* employed, resulting in a decrease in the total distribution and collection of information in the organization. But in those channels that remain, the information load (quantity of binary units) may well reach overload proportions.

Proposition 4. In response to a crisis stimulus, there is a tendency toward contraction of authority in the organization. In terms of the remainder of the model the most important direct dependent variable of a crisis stimulus may be the contraction of authority. Authority is conceived as legitimate power, or the power of individuals and groups, the acceptance of which is recognized as obligatory by the rest of the organization. The power of an individual or larger organizational unit, *A,* is stated as the ability of *A* to get some other unit or individual, *B,* to act when instructed to do so by *A*. "Contraction," is intended here to represent one of several alternatives: (1) the shifting of authority activities to higher levels in a hierarchical structure, (2) a reduction in the number of persons or units participating in the exercise of authority without reference to a hierarchy, and (3) an increase in the number of occasions for the exercise of authority, although the actual number of authority units remains constant.

Contraction of authority is illustrated in the hypothesis formulated by Snyder and Paige based on their study of the decisions of the United States to take military action in Korea: "When crucial choices are forced on an organization from the environment, the decisional subsystem will be characterized by smaller decisional units."[29]

In the analysis of what might be described as a crisis-oriented organization, Janowitz found that as a military situation takes on aspects of a crisis "the more feasible it becomes for officer personnel to claim that new problems are outside their jurisdiction and require directives from higher authorities."[30] Considering

and R. L. Meier, *Social Change in Communications-oriented Institutions* (Mental Health Research Institute, University of Michigan, Report No. 10; Ann Arbor, 1961).

[29]R. C. Snyder and G. D. Paige, The United States Decision to Resist Aggression in Korea: The Application of an Analytical Scheme, *Administrative Science Quarterly,* 3 (1958), 362. Also reprinted in R. C. Snyder, H. W. Bruck, and B. Sapin, eds., *Foreign Policy Decision-Making* (New York, 1962), 206–249.

[30]*Op. cit.,* p. 88.

only the dimension of high-priority values, Dean Pruitt has revealed that the increase in danger of a problem to United States objectives correlated with both an increase in the coordination required for the problem and in the level of approval (rank of signer) required.[31] These correlations are statistically significant at less than the .05 level. In the United States Patent Office several factors are creating a contraction of authority. As previously noted, there has been some turnover among the personnel with the authority to decide patent applications. At the same time, the number of applications filed and the slowdown resulting from the increasing "complexity of disclosures and the growing burden of search load"[32] has produced a large backlog of applications. Two types of contraction of authority are operating: a reduction in the number of persons in positions of authority and, simultaneously, an increase in the number of occasions for authority decisions.

STRESS ON AUTHORITY UNITS AND ITS TRANSFER

Richard Meier has suggested that "much of the stress is transmitted to component groups and individuals" and "to its clients in the milieu" by the executive leadership of an organization when it is placed under acute stress.[33] The increase in the stress on authority units and the attempts to transfer some of this stress to other parts of the organization are the subject of several propositions which are illustrated in the discussion which follows.

Proposition 5. As contraction of authority increases, the stress upon existing authority units increases. The increase in stress on authority units as a result of the contraction of authority is the mechanism in the system which brings about attempts to transmit the stress to other units in the organization. The proposition suggested here is that when authority is contracted, the stress felt by authority units is intensified beyond that induced in other organizational units. Richard Meier's comment that a crisis occurs when stress "reaches a peak at the executive level"[34] is relevant here.

The association of crisis with such terms as stress has been noted.

[31] *Op. cit.*, pp. 43, 124.
[32] Report to United States Senate Committee on the Judiciary, *op. cit.*, p. 2.
[33] *Op. cit.*, pp. i–ii.
[34] *Ibid.*

One author has observed that "high stress... is almost universally characteristic of international crisis situations."[35] In the present context stress will be differentiated as a characteristic of the organization's response to a crisis. Although it frequently may involve affective components of the organization's personnel, a wide range of possible indicators of stress can be listed. It might be identified by overtime work, an increase in the number of errors made in routine tasks, greater tendencies toward problem-solving rigidity, reduction in the time spent on long-range projects, and increased scores on such psychometric instruments as the Manifest Anxiety Scale[36] as compared with scores in less stressful periods.

Several examples of this proposition can be cited. In a case study of a wildcat strike, decisions made by top management are reported to have displayed evidence of problem-solving rigidity.[37] Thus, as management-employee relations deteriorated and the problem was sent to higher authorities for resolution (contraction of authority), there were signs of stress on authority units; that is, some failure by management to explore possible alternative courses of action. The U-2 incident involved an effort to contract authority with respect to the agency responsible for releasing statements on the missing aircraft. Some indicators of subsequent stress have already been noted in terms of the communication-clearance problem and others are mentioned by David Wise and T. B. Ross.[38] Although it falls outside the range of formal organizations, an interesting analogy can be drawn from the activities of an anthropologist who became involved in Polynesian society. The small island society was experiencing a combination of natural disasters and difficulties in its governmental operation. When the existence of the people was threatened, the anthropologist catapulted to a position of authority after the natural leadership had contracted. He recalls:

The immediate situation and succession of crises had been so overwhelming that I had not even thought of the obvious long-term

[35]R. C. North, Decision-Making in Crisis: An Introduction, *Journal of Conflict Resolution,* 6 (1962), 197.

[36]J. A. Taylor, A Personality Scale of Manifest Anxiety, *Journal of Abnormal and Social Psychology,* 48 (1953), 285–290.

[37]Gouldner, *op. cit.,* p. 85.

[38]*Op. cit.,* see particularly chs. vi, vii, viii.

solution, migration, as a practical possibility. It was not until several days after the crisis...that it really occurred to me.[39]

In this incident, stress is evident in the loss of attention to long-range solutions and to some extent in problem-solving rigidity.

Proposition 6. As authority unit stress increases, the tendency of authority units to withdraw from organizational tasks increases. If the occurrence of a crisis can lead directly to withdrawal behavior, it seems reasonable that further stress beyond that of the initial crisis stimulus will also lead to withdrawal. This proposition, however, is confined to the withdrawal patterns of members of authority units. On the basis of observations in communications-oriented institutions, one investigator suggests that when leaders believe that a crisis has become intolerable, they may permit "a takeover, bankruptcy or mass resignation."[40] A number of examples of stress can be found in the appropriate authority units of major Eurpoean foreign offices in the crisis preceding the outbreak of World War I. There were also signs of withdrawal behavior as evidenced by a report from one source that German Chancellor Bethmann-Hollweg offered his resignation to the Kaiser a few days prior to the outbreak of the war.[41] A recent attempt to simulate critical aspects of the outbreak of World War I also resulted in a resignation attempt by one of the principal participants.[42] Summarizing findings on groups under stress, drawn from small-group research, E. P. Torrance states that when stress reaches a certain intensity "the leader feels so threatened that he either takes away all power from others or abdicates his own power role."[43]

Proposition 7. Under increasing stress, an authority unit is

[39]J. Spillius, Natural Disaster and Political Crisis in a Polynesian Society, *Human Relations,* 10 (1957), 18.

[40]Meier, *op. cit.,* p. 43.

[41]L. Albertini, *The Origins of the War of 1914* (New York, 1953), II, 437.

[42]C. F. and M. G. Hermann, *The Potential Use of Historical Data for Validation Studies of the Inter-Nation Simulation: The Outbreak of World War I as an Illustration* (Report under Contract N123 (60530) 25875 A to United States Naval Ordnance Test Station, China Lake, Calif., 1962).

[43]*Op. cit.,* p. 108. R. L. Hamblin also has completed some laboratory experiments in this area, revealing a change in leadership imposed by group members when a solution is not found; see his Leadership and Crises, *Sociometry,* 21 (1958), 322–335.

more likely to institute modifications in organization standards. Organization standards represent criteria (usually determined by management or their representatives, e.g., efficiency experts) for the measurement of performance and production rates within the organization. As used here, organization standards may involve the objectives or goals (as defined by the organization's authority units) for which the organization exists. This variable is the only one in the present miniature system which can readily be identified as a major crisis-solving device. It is included here because of some negative effects that may be associated with its use.

In his discussion of the American Red Cross, D. L. Sills notes that the crisis of declining membership after the end of World War I "was surmounted by adopting a new program—the preservation and improvement of public health."[44] Thus, new standards were introduced. When faced with the post-war business slump and increased competition, the management of one company made technological changes to increase production rates.[45] Richard Meier reports on the modification of standards made in a major library, whose administrators were faced with increasing stress.[46] Certain standards of performance were relaxed or countermanded, e.g., the time required to fill a request for a book from the stacks, or the speed with which overdue notices were dispatched. Several political scientists, using a content analysis of diplomatic documents, have uncovered an apparent change in requirements (or standards) for war held by Germany and Austria-Hungary.[47] There is evidence that, prior to the crisis in the summer of 1914, those governments strongly wished to avoid war until their military capabilities placed them in a more favorable position with respect to their potential enemies. As the stress upon the official decision makers increased—reflected in the increased amount of affect in their statements—the objective of avoiding immediate hostilities was abandoned. Some consequences

[44]"The Succession of Goals," in Etzioni, ed., *op. cit.*, p. 154.

[45]Gouldner, *op cit.*, p. 67 ff.

[46]*Op. cit.*, p. 41.

[47]D. A. Zinnes, R. C. North, and H. E. Koch, Jr., "Capability, Threat and the Outbreak of War," in J. N. Rosenau, ed., *International Politics and Foreign Policy* (New York, 1961), pp. 469–482.

of modifications in organization standards will be deferred to a later proposition.

Proposition 8. The increase in stress on authority units will reduce the number of communication channels used for the distribution and collection of information. Another dependent variable of stress on authority units is the reduction in the number of communication channels used by the unit. If the assumption is made that any search activity frequently involves the use of communication channels, then the proposition by March and Simon, with its accompanying evidence, becomes pertinent: "Search becomes less fruitful as stress and time pressure are pushed to the limit."[48] Persons responsible for proposing a solution to a problem also tend to consult others less frequently when time pressures became great, as noted by Dean Pruitt.[49] A recent volume on the opening campaigns of World War I indicates that in the first month of the war, General Joseph Joffre and the French General Staff, under the stress of the German attack, are reported to have adhered rigidly to a designated offensive strategy.[50] In that action they neglected certain field commanders (as well as part of the civilian government) as channels of communication—channels which were attempting to warn of needed defensive moves to prevent a German envelopment. A comment based on the study of disaster materials also might be linked to Proposition 8: "One way a feedback control system can react more rapidly is to cut down the signal range. Both individuals and community systems revert, in sudden disaster, to a restricted set of referents.[51] Like the disaster materials, the small-group studies are not directly applicable to an organizational model; but, if the findings are recognized as only suggestive, then the probability that a communication breakdown between a leader and members of his group increases under severe stress is worth consideration.[52]

Proposition 9. Increased stress on authority units will increase

[48]J. G. Marsh and H. A. Simon, *Organizations* (New York, 1958), p. 116.
[49]*Op. cit.*, p. 60.
[50]B. W. Tuchman, *The Guns of August* (New York, 1962), pp. 209–211.
[51]Williams, *op. cit.*, p. 19.
[52]Torrance, *op. cit.*, p. 113.

the probability of conflicts between the authority units and other units in the organization. This proposition, concerned with efforts to transfer stress in a crisis, relates stress in authority units to intraorganization conflict. For the present exploratory purposes, reference will be made only to two manifestations of conflict—factionalism and role conflicts. Factionalism results when a course of action is favored by one or more members of a unit more or less consistently and opposed by one or more other groups within the unit. Operational measures might be recorded by means of action preferences of various subunits as registered in interviews or questionnaires. Role conflict is the conflict between two or more patterns of behavior expected from a single position in an organization. One means of determining role conflicts is by use of the *S* technique in factor analysis.[53]

Both role conflicts and factionalism were reported in the wildcat strike study. Union leaders found themselves caught between their role of representing all union grievances and their identification with management and its problems. As a result "union leadership at the Oscar Center plant was divided into two, not completely stable cliques."[54] Another study indicates that a government laboratory experienced a redefinition of goals in order to obtain financial support (the stress situation). "A number of factional splits appeared, the most striking of which was that between the 'old guard' and the new leaders supporting the development."[55]

R. H. McCleery presents a case study of an attempt by prison management to change their institution's policy from a custodial to a treatment orientation.[56] Although the stress upon the author-

[53]This device is advanced by R. B. Cattell, who defines role for purposes of factor analysis as "a pattern of responses to different occasions which is modal among individual patterns; i.e., it is a cluster or factor among people in responses to social occasions." See his Three Basic Factor-Analytic Research Designs—Their Interrelations and Derivations, *Psychological Bulletin,* 49 (1952), 499–520.

[54]Gouldner, *op. cit.,* pp. 95, 102.

[55]P. Brown and C. Shepherd, "Factionalism and Organizational Changes in a Research Laboratory," in R. T. Livingston and S. H. Nilberg, eds., *Human Relations in Industrial Research Management* (New York, 1957), p. 268.

[56]"Policy Change in Prison Management," in Etzioni, ed., *op. cit.,* pp. 376–400.

ity unit or management in this case is not clearly documented, it seems to be present along with the given disorders and difficulties which followed the policy change and eventually led to an investigation by the state legislature. What is clearly presented is the role conflicts that confronted both the staff and prisoners. A final example of stress on authority units creating intraorganization conflict is drawn from international relations. The Japanese cabinet faced a severe stress situation in deciding on the response to the Potsdam Declaration—the Allied request for unconditional surrender. The subsequent conflict was such that the cabinet agreement was reportedly violated by one of the factions.[57]

Contradicting the evidence cited are the small-group experiments of J. T. Lanzetta: "It was found that as stress increased there was a decrease in behaviors associated with internal friction in the group; a decrease in number of disagreements, arguments, aggression, deflations and other negative social-emotional behaviors."[58] A possible explanation for this contrary evidence can be drawn from Torrance's work on leadership and stress.[59] He reports one kind of behavior under mild stress and another under more intense stress. Thus, assuming a curvilinear relationship, leadership may delegate authority under mild stress but centralize it under acute stress or establish strong communication links under moderate stress which break down as stress increases. If this explanation is correct, it is important for the accuracy of the present proposition to establish that the added stress to authority units under crisis is beyond the apparent threshold for acute stress.

Alternatively, the contradiction may stem from a difference between small groups, which are not embedded in organizations, and organizations. The conflicts in organizations might be accounted for by an intervening variable, such as precrisis factionalism between organizational units or the extent of independence of units within the organization. Neither of these

[57]See K. Kawai, Mokusatsu: Japan's Response to the Potsdam Declaration, *Pacific Historical Review*, 19 (1950), 409–414; and R. C. Batchelder, *The Irreversible Decision 1939–1950* (Boston, 1962), pp. 91–97.

[58]*Op. cit.*, p. 46.

[59]*Op. cit.*, pp. 108, 113.

intervening variables would be applicable to an isolated face-to-face group. But, in an organizational context, stress on authority units might produce intraorganizational conflict, depending on whether the larger organization splintered—as a result of factionalism or suborganization independence—into sections with strong in-group and out-group perceptions. A possible illustration of this alternative is displayed in the study of prison officials discussed at the beginning of Proposition 10.

ORGANIZATIONAL RESPONSE TO TRANSFER OF STRESS

In this final section some propositions will be advanced to suggest how an organization's response to attempts by an authority unit to transfer consequences of its stress can weaken organizational viability.

Proposition 10. As intraorganization conflict increases, there is a greater tendency for organization members to withdraw from organization tasks and activities. This proposition suggests that conflict leads to an increasing tendency toward withdrawal. In a study of prison officials, conflict led to the general atomization of the prison staff. There was a general "decline of the old informal groups among the staff" and the treatment-oriented guards, in particular, "responded to this new minority position by becoming more cohesive and remaining apart from the other officials."[60] With reference to similar behavior in the military establishment, Morris Janowitz concludes: "A small, homogeneous, isolated professional group is less likely to be subjected to role conflicts,"[61] which indicates that one reason for withdrawal is to escape role conflicts. In the wildcat strike case study the top union leadership escaped their role conflict by abdicating their authority, and the union members attempted a withdrawal in the form of a strike.[62] Attention might be directed to several nonorganizational examples. One interesting parallel to this proposition is Alexander Mintz's theory of nonadaptive group behavior.[63]

[60]O. Grusky, Role Conflict in Organization: A Study of Prison Camp Officials, *Administrative Science Quarterly*, 3 (1959), 465.

[61]*Op. cit.*, p. 89. [62]Gouldner, *op. cit.*

[63]Non-adaptive Group Behavior, *Journal of Abnormal and Social Psychology*, 46 (1951), 150–159.

Using an experimental group, he demonstrated that when the reward for co-operative behavior became uncertain in a threatening situation, competitive behavior occurred, each person attempting to withdraw and act independently of the group. In a Polynesian society, conflict over scarce resources resulted in a similar withdrawal pattern: "Tikopia society as a result of the crisis, was atomizing into smaller and smaller kin groups."[64]

Proposition 11. As intraorganization conflict increases, the number of communication channels used for the collection and distribution of information in the organization decreases. Two of the examples cited above can also be applied to illustrate briefly the possible operation of this proposition, relating conflict to a reduction in the number of communication channels. Studying the developments leading to the strike, A. W. Gouldner observed a breakdown in the informal channels of upward communication: "The tensions that had developed after the first succession, and the impersonal demotion of the old supervisors after the second succession, had destroyed the workers' desires to be friendly with their supervisors."[65] A second illustration is offered by Grusky,[66] who found a reduction in communication between prison management factions, particularly between the supervisor and the treatment-oriented guards.

Proposition 12. Modification of organization standards *may* tend to increase intraorganization conflict and withdrawal behavior. This proposition cautiously links modifications in organization standards with two dependent variables—intraorganization conflict and withdrawal behavior. Withdrawal mechanisms are apparent in an examination of modifications introduced in a library's standards: "Morale . . . drops precipitately when standards are compromised. Absenteeism, sickness rate, and labor turnover (all of them partial indicators of the state of morale) may be expected to show sizeable increases."[67] In Gouldner's case study there is evidence that both withdrawal and eventually conflict followed modification of production standards. Regarding withdrawal, the author observes that workers "tended to remove themselves either from emotional participation or even physical partici-

[64]Spillius, *op. cit.*, p. 16.
[65]*Op. cit.*, p. 83.
[66]*Op. cit.*, p. 466.
[67]Meier, *op. cit.*, p. 41.

pation in the plant."[68] The ultimate expression of conflict in that study was the wildcat strike, but, even before it occurred, indicators appeared in the reorganization of primary groups and the denial of legitimate authority to management. If modifications of standards lead to dissatisfaction, then a psychological explanation can be offered. "Aggression, withdrawal, and regression are certainly observable reactions to dissatisfaction that lead to frustration."[69]

Despite the evidence in support of the proposition, however, contrary findings were also discovered. When a study of changes in prison standards was quantified, short-run effects were found that tended to support the present proposition. Long-run effects, on the other hand, ran counter to it.[70] Also the change in Red Cross goals, cited earlier, was held to have provided a solution to the crisis.[71] These contradict the hypothesis offered in the proposed model. Will changes in standards contribute to crisis solutions or increased withdrawal and conflict tendencies? From the evidence given, modifications in organization standards may lead to withdrawal and conflict immediately after they are introduced, or when they are accompanied by certain side effects, or perhaps, when they are of a certain substantive nature. This suggests that the illustrative material reported in this paper is not sufficient to indicate the conditions for differentiating between alternative outcomes. Although there is evidence to warrant inclusion of the proposition in the model, the conditions for its operation remain open and uncertain for the present.

Proposition 13. A reduction in the number of communication channels connecting a unit to the remainder of the organization, increases the unit's withdrawal behavior. This proposition and a complementary feedback proposition—withdrawal reduces information—constitute the final propositions of the system.

A study of a military organization reveals that when communication channels are weakened in combat, field units feel that higher authority is not only "remote and distant" but "acting capriciously and arbitrarily."[72] Rejection of legitimate authority

[68]*Op. cit.*, p. 77, also see pp. 79, 83. [69]March and Simon, *op. cit.*, p. 50.

[70]A. H. Barton and B. Anderson, "Change in an Organizational System: Formalization of a Qualitative Study," in Etzioni, ed., *op. cit.*, 400–418.

[71]Sills, *op. cit.*, p. 154.

[72]Janowitz, *op. cit.*, p. 77.

might well be interpreted as an indication of withdrawal behavior. In a similar type of finding, industrial workers were reported to have increasingly hostile attitudes toward authority as they failed to receive information in response to their grievances.[73]

Proposition 14. Withdrawal behavior by a unit of an organization reduces the number of communication channels connecting it with the remainder of the organization. The final proposition reverses the relationship between the variables incorporated in the preceding proposition. Common sense suggests that when a unit elects to withdraw from an organizational environment the probability of a reduction in communication channels linking that unit with the organization is increased. It has been noted, for example, that when the employees in the wildcat strike study began to withdraw from their supervisors, there was a reduction in upward communication.[74] An interesting incident from the early days of World War I is also pertinent. The commander of the French Fifth Army in the Battle of Charleroi became concerned about his exposed right flank and ordered the withdrawal of his forces from the engagement, thus terminating the French hopes of bringing the war to a quick conclusion. It is reported that the commander took the action without communicating to his military superiors, because he anticipated their disapproval.[75] Indirect evidence is found for the proposition in a study of small-group communication. When there were good feelings and satisfaction among the group participants (nonwithdrawal behavior), then communication between them was facilitated.[76]

The final proposition suggests the possible role of feedback in the model. If the feedback to authority units, which are responsible for selecting and initiating a response to meet a crisis, are weakened by withdrawal behavior, conflict, or some other behavior, then greater difficulty may be experienced in resolving a crisis. It is interesting to observe that the military organization—which must be constantly prepared to deal with crises—has elaborate

[73]Gouldner, *op. cit.*, p. 93.

[74]*Ibid.*, p. 74.

[75]Tuchman, *op. cit.*, p. 253.

[76]C. Shepherd and I. R. Weschler, The Relation between Three Inter-Personal Variables and Communication Effectiveness: A Pilot Study, *Sociometry*, 18 (1955), 108.

procedures for maintaining feedback to authority units: "The informal and unofficial channels of communication are so important that they become institutionalized in the oral 'briefing'."[77] What can happen if feedback systems fail is demonstrated in the study of prison management. "The lack of direct communication channels from the inmates to the guards to the supervisor ... resulted in a lack of immediate knowledge by the chief policy maker of the impact of his decisions."[78]

By definition crises are situations unanticipated by the organization. In an unfamiliar situation some degree of trial and error is present in seeking a response. When, for lack of feedback, an authority unit fails to discover that an error has been made, the organization's viability may be seriously challenged. The model presented here indicates how an organization may be critically affected by changes brought about by a crisis, which may increase the possibility of error and block feedback.

[77]Janowitz, *op. cit.*, p. 85.
[78]Grusky, *op. cit.*, p. 465.