prevention of war), in *Parlament*, 1971, p.3.

[15] UN Resolution 3457/XXX of 10 December 1975, On the drafting of guidelines for peacekeeping measures of the United Nations.

# 4 Types of crisis actors and their implications for crisis management

**Charles F. Hermann**

## Conditions that facilitate crisis management without violence

This chapter will tentatively propose ways of clustering or grouping crises that have implications for crisis management. An international crisis will be stipulated as a situation of limited duration between two or more international actors having as one of its potent outcome the occurrence of military conflict or a sharp increase in the level or scope of violence already existing between the parties. [1] Using this minimal definition of crisis, we wish to explore whether there are some types of crises that have different implications for the means or strategies used to cope with them. The strategies or objectives of actors attempting to manage a crisis will vary. In this chapter, however, we will assume that one major purpose of any crisis management strategy is to avoid the outcome that leads to escalation of violence or war without at the same time capitulating one's own position. Not every actor in each international crisis will adhere to this objective at all times, but it seems reasonable to suggest that it is a widely shared function of crisis management. [2]

Clearly there are many elements that contribute to effective crisis management. Some of these pertain to the personality, skills, and experience of the individuals who are directly involved in the crisis. Others deal with the organisational capabilities and various resources of the government or other collective actors. In this essay let us concentrate on the resources, skills, or other conditions that should be present in all parties to the crisis. Assuming that the avoidance of the violent outcomes of a crisis requires some ability on both (all) sides, then it is important that there be some symmetry in the conditions under which crisis management occurs. Put another way, the likelihood of avoiding war or the escalation of violence increases if all the parties rather than just one have good conditions for effective crisis management. Therefore, let us consider eight conditions that may facilitate peaceful crisis management, that is, crisis management designed to avert escalation of the conflict.

1 *Communication channels between adversaries.* It is enormously important for a party to a crisis to be able to communicate accurately with its adversaries. Reliable, trustworthy, confidential, and rapid means of communication are of greater value in crises than in other situations because the likelihood of being misunderstood is greater and the felt need to act before the situation deteriorates constricts the ability to invent new *ad hoc* means of communicating. In this day of telecommunication satellites, worldwide networks of governmental officials, and 'hot lines' it can be too easily assumed that communication is no problem. If a communication channel is demon-

strated to be dependable, but has not been used in noncrisis, the probability is slim that it will be relied upon in a crisis.

2  *Access to and experience with conflict resolution mechanisms.* Many observers have noted the tendency of policy makers in crises to feel as if they have lost control of events or that they are on a slippery slope to disaster. In such a context escape routes have to be clearly visible to have much chance of being engaged. Therefore, past experience with mechanisms for resolving conflict becomes important. Possible arrangements include various third parties, international organisations, and bilateral procedures that have worked for the adversaries in other disputes.

3  *Mutual recognition of non-zero sum outcomes.* The two previous factors have concerned resources available for handling the crisis. This factor concerns the disposition or orientation of the adversaries. By non-zero sum, we mean that all parties to the crisis recognise that there are some outcomes which are undesirable for all parties and/or other outcomes for which the gains of one party are not entirely at the expense of the other(s). In fact, the possibility of non-zero sum outcomes in which all parties benefit (though not necessarily to the same degree) can be one of the most helpful elements for crisis management. In contrast, there are conflicts in which one or both parties view the outcome as indivisible, so that one party's gain becomes the other's loss. Under such circumstances, peaceful crisis management becomes more difficult.

4  *Mutual belief in the rationality of adversaries.* The Soviet and American strategic deterrence systems assume the rationality of their adversary. In other words, they assume that should their strategic opponent entertain the thought of inflicting harm on them, the opponent will be deterred from doing so by a rational calculation that such behaviour would result in overwhelming retaliatory destruction. If an adversary is assumed to be rational, then communications designed to influence this cost–benefit calculation, to convey commitment, or to propose alternatives become thinkable. Should the belief in the opponent's ability to reason rationally be absent, then the incentive for strategies other than pre-emptive destruction become much harder to introduce as a workable crisis management strategy.

5  *Valued interdependence of parties on other issues.* The significance of this characteristic is that it reduces the tendency of the parties to interpret the present situation as zero-sum. If at least some of the parties who are adversaries in the present crisis also are linked together on other issues from which all derive benefits, then the concern about disrupting these welcomed interdependencies will serve as a constraint. In short, the greater the mutually valued interdependencies among the parties, the more likely are they to be willing to participate in crisis management efforts that resolve the present confrontation without violence.

6  *Non-military instruments of statecraft.* Do the parties have effective capabilities for obtaining some or all of what they want by means other than force and violence? The existence of diplomatic skills, economic modes of influence, and other alternatives to force and violence become important in managing a crisis. If one or more of the crisis parties believe that they are deficient in the various non-military means of international influence relative to their adversaries, they may become convinced that their only choice is between capitulation and the resort to force. In contrast, parties that feel

they have some competence in bargaining and some resources to support their crisis negotiators, may be more prepared to explore non-violent solutions to the crisis.

7  *Parity in usable military resources.* If one of the parties to a crisis is decidedly inferior to the others in terms of available military resources for war-fighting or escalatory violence, then it will probably have incentives to seek a non-violent resolution of the crisis. However, such an asymmetry in military strength does not ensure that force will not be used against it by the stronger actors unless the weaker party complies totally with their demands. Accordingly, crisis management efforts intended to avoid war and violence *by all parties* can be expected to have a better chance of success if the parties have a rough equality in terms of the force capabilities that can be brought to bear in the situation. This characteristic requires several comments in elaboration. First, the approximate equality in force capabilities refers specifically to those that can be applied in the crisis, not the total military resources each party may have in its inventory. If allies or other favourably inclined actors are willing to provide military assistance in the immediate crisis, then their contribution has to be included in the assessment of a party's capabilities. Second, there is an operating assumption about equality of force as an asset for the non-violent resolution of crisis. It is this parity in usable military resources that leads all parties to calculate that resort to force is likely to lead to stalemate or even loss of the values over which the crisis is being waged. On the other hand, it should be recognised that an objective situation of rough equality may lead to miscalculations that increase the likelihood of violent outcomes. Particularly, individuals who wish to urge violent conflict may be better able to persuade their associates that the military balance actually favours them than they would if the military situation was unmistakably advantageous to their adversaries. Thus, there is some chance that military parity when combined with other factors (i.e., advisors who prefer military action) will not facilitate peaceful crisis management. On balance, however, we judge it to be a more favourable condition than military inequality.

8  *No access to nuclear weapons.* This element is another potentially controversial factor in crisis management. The general assertion is that a non-violent outcome to a crisis is more likely if none of the parties has access to nuclear weapons either through its own military capability or through assistance from an ally with nuclear capability. If nuclear weapons are possessed by some parties to the crisis, then it is probably preferable that all parties have access to a deliverable nuclear capability. The logic for this position is similar to that used for the assertion that conventional military parity normally facilitates the avoidance of war or escalations in violence. If only one actor or some subset of actors have access to nuclear weapons, the temptation to threaten their use in crisis increases, which in turn may not encourage the rational search for a peaceful resolution of the dispute. In summary, crisis management is more likely to avoid war if no party has access to nuclear weapons and it is least likely if only one party has such access.

## A partial typology of actors in contemporary crises

Bearing in mind the above conditions that influence attempts at peaceful crisis

Table 4.1

Effects of Types of Crisis Adversaries
on Facilitating Peaceful Resolution

|  | Types of actors in crisis | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Conditions fostering crisis management | Dominant power vs. dominant power | Aspiring dominant power vs. dominant power | Internal bloc or alliance members | Traditional limited power adversaries | Opposing forces within a nation | International cartels vs. their markets | Poor vs. rich nations | Non-territorial political groups vs. territorial entities |
| 1 Communication channels between adversaries | + | +/- | + | - | - | + | + | - |
| 2 Access to and experience with conflict resolution mechanisms | + | -/+ | + | + | - | + | +/- | + |
| 3 Mutual recognition of non-zero sum outcomes | + | + | +/- | - | - | + | - | + |
| 4 Mutual belief in rationality of adversaries | + | + | + | - | - | + | + | - |
| 5 Valued interdependence of parties on other issues | + | -/+ | + | - | - | +/- | + | - |
| 6 Non-military instruments of statecraft | + | - | + | -/+ | - | +/- | -/+ | - |
| 7 Parity in usable military resources | + | - | - | + | ? | - | - | ? |
| 8 No access to nuclear weapons | - | - | -? | + | + | ? | ? | ? |

Note:   A plus (+) in the table means that the crisis management condition at left probably exists in the type of crisis. A minus (-) means the condition probably does not exist in most such crises. A question mark (?) means no determination was made. A plus and minus (+/-) means there may be a slightly greater tendency for the condition to be present than absent, whereas a minus-plus (-/+) means the reverse.

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management, let us now consider a possible way of clustering or grouping the kind of actors or parties that might be expected to become involved in international crises in the contemporary period. Of course, there are many ways to classify the participants in international crises. The present purpose, however, is to construct a classification that will differentiate actors on some dimensions relevant to crisis management. We propose to do that by identifying types of actors in crises that may differ with respect to the conditions for peaceful crisis management discussed above. The typology is provisional – there are undoubtedly some important types of actors that are not adequately represented; others may not fit neatly into only one of the proposed categories. Nevertheless, the scheme is designed to suggest that different types of parties to a crisis affect the probable success of terminating a crisis without resorting to war or escalations in violence.

The eight combinations of actors in the proposed classification of international crisis are (1) dominant power versus dominant power, (2) aspiring dominant power versus dominant power, (3) internal bloc or alliance members, (4) traditional limited power adversaries, (5) opposing factions within a nation, (6) international cartels versus their markets, (7) poor versus rich nations, (8) non-territorial political groups versus territorial states. Each of these requires some brief elaboration.

*Dominant power versus dominant power.* The term dominant power has generally referred to the two leaders of the opposing political–socio-economic systems since World War II – the United States and the Soviet Union. By dominant power confrontation we mean a crisis in which each power directly confronts the other over one or more issues that both regard as having major significance. Each may be associated in its position with major alliance partners, but the significant quality is that the two nations view each other as the principal adversary.

The possible effects on conditions for peaceful management of a crisis between the dominant powers is summarised in the first column of Table 4.1. This table displays each of the eight conditions facilitating peaceful crisis resolution with the different types of crisis actors. As a rough first approximation a plus (+) is entered in the table if the condition is conjectured as likely to be present and a minus (–) if the condition is likely to be absent. It should go without saying that actual crises between the parties may not conform to the expectations noted in Table 4.1. However, the argument advanced is that most crises of the type noted will share a tendency to be similar with respect to any given condition.

It is undeniable that the consequences of war and other violent outcomes of a crisis between the United States and the Soviet Union could be among the most destructive and far reaching of any in the contemporary world. It is perhaps for that reason that both sides have gradually moved to create conditions that tend to support crisis management capabilities that reduce the likelihood of escalation and increased violence. Both sides regularly interact with one another through a variety of channels and supplement these with some extraordinary ones designed specifically for crisis situations. Over the years the two sides have constructed a variety of bilateral as well as multilateral conflict resolution mechanisms, although there may be some tendency for the dominant powers not to depend heavily on multilateral devices such as international organisations in

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times of severe crisis. Furthermore, a strong case can be made that both sides recognise non-zero sum outcomes – at a very minimum they have a shared desire to avoid nuclear war but more recently to find mutual gain in some form of *détente*. As noted earlier, the present strategic deterrence system used both by the Soviet Union and the United States assumes the rationality of the other side's policy makers. Similarly, the efforts at constructing *détente* can be viewed as efforts to increase interdependence in trade, scientific knowledge, coping with such societal problems as health and environment, space explorations, and control of nuclear proliferation. The contributions that both sides are making to such issues is an indirect indicator of some considerable strength in non-military instruments of statecraft. The issue of parity in useable military resources is much debated and a cause of concern among some groups in both countries. It probably is the case that in different kinds of crises in different geographical locations the equality might not be as certain as Table 4.1 implies, but a general balance seems likely to exist at present. [3] It is with respect to nuclear weapons, that an unfavourable condition is most pronounced and even here the existence of rough nuclear parity prevents the most unsatisfactory set of circumstances. Indeed the maintenance of essential equivalents in nuclear power appears to be one condition whose future status should be a matter of mutual concern and discussion between the United States and the Soviet Union.

*Aspiring dominant power versus dominant power.* This category of crisis includes confrontations such as those between the People's Republic of China (an aspiring dominant power) and either the United States or the Soviet Union. As the second column of Table 4.1 indicates, fewer of the conditions for peaceful resolution of such crises seem to be present than in encounters between the two superpowers. Certainly some communication channels exist, but it appears reasonable to suggest that China's communication facilitates with both the USSR and the USA are not as well developed either technologically or in terms of their human components as between the USSR and USA.

Hence the cell in Table 4.1 is denoted by a + / –. China's entry into the United Nations system would appear to be a favourable development with respect to crisis management, but still its experience with either bilateral or multilateral arrangements for conflict resolution with the dominant powers is quite limited. Similarly, the valued interdependences of the PRC with either the USSR or USA on various issues seem modest despite its commitment as a member of the socialist system and its more recent formal contacts with the United States. With respect to general military parity and access to nuclear weapons, the conditions for peaceful crisis management would appear to be unfavourable for a confrontation between either China and the USA or China and the Soviet Union. Comparison of the first two columns of Table 4.1 illustrates the general point: the conditions for crisis management vary significantly depending on the type of actors involved in the crisis. We shall look briefly at some implications of other combinations of crisis actors.

*Internal bloc or alliance members.* In this type of crisis the dispute is between members of the same alliance or political bloc. Examples of such crises in the past include the US, Britain and France over Suez in 1956, France and its EEC partners over agricultural policy, and the Soviet Union, other members of the Warsaw Pact, and

Czechoslovakia in 1968. As indicated in Table 4.1, five of the conditions favouring peaceful crisis management can normally be expected to be present in such crises. A sixth condition – recognition of non-zero sum outcomes – usually is present, but may not be if the leadership of the bloc perceives that certain groups within an allied country seek to remove that nation from bloc membership. Moreover, such crises frequently lack a parity among the actors in usable military resources or access to nuclear weapons – particularly if the alliance involves the United States or the Soviet Union. Of course, in some blocs, such as the Organisation of African Unity, none of the members has access to nuclear weapons at present. (Hence, we have entered a question mark as well as a minus into the appropriate cell in Table 4.1.)

*Traditional limited power adversaries.* This type of crisis refers to a potentially new episode in a long standing conflict between parties that have been opponents for an extended period of time but which have relatively limited power and resources to devote to the struggle. (Of course, all nations and other international actors have limited power, but the parties in this category have substantially less than the major world powers.) Examples of such traditional adversaries include India–Pakistan, Israeli–Arab states, and Greece and Turkey over Cyprus. As indicated in Table 4.1, crises involving traditional adversaries tend to have only three of the eight specified conditions that increase the likelihood of managing a crisis so as to avert conflict. Beliefs about the rationality of adversaries and non-zero sum outcomes often are missing. Dependable direct channels of communication and the interdependence of the parties on other issues often do not exist. Because the conflict has been sustained over an extended period, it can be assumed that the parties have rough military parity (or one would have eliminated the other in previous encounters) and that some third party efforts have provided conflict resolution machinery to moderate or temporarily stop previous episodes of active conflict. Until recently one could assume that access to nuclear weapons was a remote possibility. Now with the likely proliferation of nuclear weapons, that condition could change.

*Opposing forces within a nation.* Crises of this kind have their origin within a single country and are associated with conflicts that are variously called revolutions, coups, insurgencies, or civil war. Angola, Nigeria, and Vietnam are but a few recent examples. With the exception of no access to nuclear weapons, none of the conditions that promotes peaceful crisis management can normally be expected to be present in these crises. Occasionally there is a major inequality in usable military resources, in which case the situation passes rather quickly into open conflict and is concluded through combat. In other instances, such as the Nigerian civil war, the sides are roughly equal in their actual military capability and stalemate may occur. Hence a question mark was entered in that cell of Table 4.1. With respect to the first six conditions, however, it seems that circumstances for fostering peaceful resolution are seldom present. This does not mean that a non-violent resolution is impossible, but does suggest that it is exceedingly difficult. Some individuals would not agree with the author's classification of Vietnam as an internal war. That illustration raises the issue of whether a separate type of crisis should be devised if one or more major powers intervenes in the internal conflict. A distinction of this type would seem appropriate not only for the

category 'opposing forces within one nation' but also for 'traditional limited power adversaries'. Without reviewing each of these possible subclassifications in detail, it would appear that the involvement of one or more major powers in either type of crisis would further reduce conditions favouring peaceful crisis management.

The preceding five categories can accommodate most of the international crises that have occurred since World War II – particularly if we add one additional category for crises concerning colonies. [4] Colonial crises represent encounters between the foreign ruling power and its colony. This category has not been included here because only a very few colonies remain and, therefore, they are not likely to be major sources of international crises in the future. Instead of this category we have introduced three types of crises that seem likely to occur with increasing frequency in the years ahead.

*International cartels versus their markets.* By cartel we mean an international group of governments or private concerns that seeks to regulate prices and output in some field of international transaction. The most vivid illustration of a cartel crisis in contemporary international politics is the Organisation of Petroleum Exporting Countries and the crisis they precipitated for some countries by moving to increase the international price of oil as well as its availability to some countries. In other areas of international transaction in which a few producers largely control the availability of a commodity, the emergence of cartels seems quite possible. These cartels could deal in raw resources (e.g., iron ore, coal, grain, cocoa) or finished products (e.g., computers, miniaturised electronic components, nuclear devices). They could consist of governments, multinational corporations, or a mixture of public and private entities. Such crises would typically occur between the cartel and those who depend upon its product and who have no adequate alternative source of supply. As indicated in Table 4.1, such crises could be expected to have many of the conditions that would permit peaceful settlement of the situation. Because the producers and consumers have been interacting with one another over a period of time, channels of communication, experience in conflict resolution, expectations, recognition of non-zero sum outcomes all seem likely to be present. More problematic depending on the specific parties to the crisis are the question of interdependence and non-military instruments of statecraft. Generally, however, some interdependence and negotiating skills seems a probable attribute of all parties. Given the modern world, it does not seem unreasonable to project interdependence any time complex financial transactions are involved. Parity in usable military resources also appears uncertain, but one might venture the guess that a cartel turns to such tactics when military options seem closed either because of inappropriateness or inability of some actors to be effective in that domain. Hence, we have entered a –/+ in the appropriate location in Table 4.1 to indicate that perhaps more often than not conventional military equality will not be present. The question mark with regard to access to nuclear weapons indicates that the category of adversaries does not provide sufficient information to speculate on this condition for the foreseeable future.

*Poor versus rich nations.* Another type of crisis that seems more likely in the future results from the growing disparity between the most economically advanced nations and those that are extremely deprived economically. A possible preview of the

divisions future crises of this sort might take was offered by the special session of the United Nations General Assembly in September 1975. Caught in the squeeze between limited domestic agricultural production, soaring costs of necessary imports, and rising populations, it is conceivable that governments of the poorest nations may band together in desperation to initiate behaviours that appear nonrational and irresponsible to some other parts of the world. (This is not to suggest that all efforts to seek correction of economic imbalance are nonrational or irresponsible, but only to indicate if no accommodation is reached some parties might resort to more extreme measures.) Not only might their actions seem nonrational, but the despair could lead to a zero-sum formulation of conceivable outcomes because physical survival is at stake. Clearly the poorest nations will in most cases be inferior militarily to those they challenge, but the prospects of confronting a starving population with military actions could have strong effects on morality and morale of peoples and governments. The existence of various multilateral international organisations provides both channels of communication, some diplomatic experience, and some expectations about conflict resolution. Whether these capabilities could be effective in acute crises between rich and poor nations remains uncertain. It seems likely that the parties to such a crisis would be interdependent on other issues – prior loans and credits, commodity trade, tourism, and so on.

*Non-territorial political groups versus territorial entities.* This final category in the classification of international crises by their participants identifies confrontations involving acts that some might call terrorism. More specifically, the concern is with crises between groups of individuals with intensely felt political beliefs and national governments. Although the Palestine Liberation Organisation may offer a contemporary example, the important quality is that the membership of the non-territorial group draws individuals of various nationalities and normally does not limit targets of their action to a single territorial state. Such groups generally are small in number with extremely limited resources. Kidnapping, hijacking, bombings, assassinations, random acts of violence, and attacks against the most vulnerable points of complex societies are among the techniques frequently employed by such groups. As shown in the last column of Table 4.1, the only condition that might contribute to peaceful resolution of the crisis is the absence of nuclear weapons. Yet even if the nations having tactical nuclear weapons are the targets of such groups, their capabilities are virtually meaningless against an adversary who has no fixed territorial base. However, should the situation develop in which non-territorial political groups possessed nuclear weapons, then the possibilities for peaceful crisis management would be extremely restricted.

## Conclusions: prospects for future crisis management

We have constructed a typology of actors in international crises designed to show how different configurations of crisis participants affect the chances for engaging in a form of effective crisis management. More exactly, we have indicated that by definition crises are situations with the potential for violent outcomes and have suggested that one

function of crisis management is to avoid such results. Table 4.1 and the discussion of it in the previous section of this chapter should be regarded as provisional and intended only to stimulate systematic reflection about the problem. With these qualifications in mind, it should be noted that the prior discussion reveals two types of crises particularly devoid of the conditions assumed to facilitate the management of an international crisis without war or violence. They involve opposing forces within a nation and non-territorial political groups.

Notice that this chapter has not addressed the conditions for avoiding crises nor the matter of the relative severity of deprivation resulting from the violence that various types of crises could produce. It should be emphasised that the conditions that might reduce the likelihood of a problem or disagreement precipitating a crisis are different from those for managing a crisis once it emerges. Also unexamined in this chapter are the relative consequences of different types of crises. Thus, although the conditions for the peaceful resolution of a crisis are judged more likely to be present in a dominant power confrontation than in challenges from non-territorial groups, the consequences of failure to resolve peacefully the former type of crisis may be far more critical than the latter.

The chapter introduces an assumption that should be made explicit. The types of international crises that the world faces are changing. We have identified crises in-between new configurations of actors that have not been common in the past but which may become more frequent and more important in the future. If space had permitted, we also would have explored the implications for crisis management of new types of issues. With the exception of colonialism, there has been no disappearance of many of the older issues that have led to international crises: Who controls territory and political jurisdictions? Who shall govern? What political-economic system shall be adopted? What are the rights and responsibilities of rulers and the ruled? But these issues have been augmented by newer issues such as food scarcity and distribution, population growth, energy and other natural resource supplies, nuclear proliferation, and pollution of the environment.

Just as the new types of parties to crises pose new demands on crisis management, so do the new issues. It would be a tragic mistake to believe that crises over at least some of the new issues could not result in violent conflict in the same way as have some of the issues we have witnessed in past crises. [5]

In conclusion a caution should be introduced concerning the tendency to confine the control of crises to the task of crisis management. By definition crisis management assumes that a crisis already exists and the task is to cope with it in ways that maximise the goals of the crisis managers and those they represent. (In this essay it was assumed that primary among such goals was the avoidance of war and escalatory violence.) But this essay argues that some crises by the nature of the actors involved reduce the likelihood of averting increased violence once they have begun. Therefore, any comprehensive and serious effort to face the problems posed by international crises must include means of detecting and averting potential crises before they occur.

It is the contention of the present author that within the foreseeable future the social and behavioural sciences in combination with historians and area specialists will be

able to provide some advanced warning of certain types of crises before they occur. [6] Not in the sense of infallible predictions, but rather in the sense of probability estimates that suggest that certain kinds of situations between certain parties on certain types of issues have a greater or lesser likelihood of occurrence. Indeed such activity on a less systematic basis probably has been performed within the intelligence communities and foreign ministries of some governments for a number of years. What we are talking about then is some substantial improvement in our ability to perform a task already done. Before these new techniques become fully available it may be worthwhile asking whether this kind of intelligence might better serve the interest of all parties concerned with crisis avoidance if it were a collective public good rather than becoming exclusively a part of the secret data of each government's intelligence capability. Many governments, including those in different political-economic systems having sharp conflicts of interest, might still find it advantageous to participate in a continuous crisis monitoring system addressed to areas of shared concern. If governments agree that it is in their interest to avoid crises with dangerous potential for escalatory conflict in certain geographical areas or over certain types of issues, then some sort of system for either joint early detection of possible crises or parallel early warning systems that exchange standardised information and assessments could become a useful adjunct to each nation's own crisis management capability. Shared information and evaluation of early warning information about potential crises could reduce the possibility of inadequate information, misperceptions of other's interpretation of events, and delays in the discovery of developments of basic concern. Of course the idea is fraught with difficulties and would encounter additional obstacles because it runs counter to current thinking that information on potential crises should be a closely held secret of the party that acquires it. Yet if our assumptions are right that a new social science detection technology will emerge in a few years and that certain kinds of shared information could benefit all parties, then some cautious exploration might be worthwhile.

In the last few paragraphs, this chapter has wandered somewhat from its primary topic. However, these observations seem consistent with the general theme of the chapter which might be summarised as follows: new configurations of crisis adversaries are emerging to augment those of the past thirty years. Variations in the configuration of crisis participants have consequences for the conditions that affect peaceful crisis management. Some of the new as well as some of the older types of crises are difficult to resolve without escalatory conflict. The crises management problems would probably become even more complicated if we considered the emergence of some newer issues that may become the occasion for future crises. This analysis has led to the observation that methods of detecting and averting crises should be added to studies of crisis management. The author has speculated that the means for better early-warning of some kinds of crises may soon be feasible. In that context, we may wish to explore if there is anything to be gained by considering how the information is to be collected and distributed.

## Notes

[1] In the version of this chapter presented at the 1976 Zurich international symposium on international crises and crisis management, an initial section addressed the issue of defining crisis. That section of the paper offered a series of factors that should be considered in any definition of crisis, suggested common characteristics found in a number of definitions of crises including those in some of the papers prepared for the symposium, offered a minimal definition of crisis based upon some of the common characteristics, and related the definition previously used by the author and his colleagues to the newly advanced minimal definition. It is this minimal definition that is used in the present chapter. Because space limitations prevented inclusion of that section in the present chapter, individuals interested in the topic are invited to write to the author for a copy of the original paper. (Charles F. Hermann, Mershon Center, 199 West 10th Avenue, Ohio State University, Columbus, Ohio 43201.)

[2] It has sometimes been observed (e.g., Milburn, 1972; Robinson, 1970) that crises can have positive values or functional utility for the parties that participate in them. Neither of the cited authors intended that the conclusion should therefore be drawn that they personally advocate the deliberate creation of international crises, but rather that the prospects of positive gains might tempt some policy-makers to do so. Using international crises and crisis management as deliberate instruments of policy to affect change, however, seems unwise in the extreme. The reason for this conclusion is that (a) the ability of any party to control events appears to decline in a crisis, (b) the possibility of nonrational behaviour on the part of some actors increases, and (c) the likelihood of massive violence is always a possible outcome. Regrettably, it may be questionable to assume that this position is shared by all individuals in every crisis and that peaceful resolution is always a common objective.

[3] For evidence of military parity between the Soviet Union and the United States, see the most recent edition of The Military Balance (1975) from the International Institute for Strategic Studies and the Stockholm International Peace Research Institute's Yearbook (1976).

[4] Various attempts have been made to enumerate the international crises since World War II and the lists depend upon the author's definition and perspective. A rather extensive listing is provided by Buchan (1966) and another one from the point of view of an American policy maker appears in the testimony of Dean Rusk (1966). Between 1961 and mid-1966 Rusk identified thirty-seven international crises, all but three or four of which can be located in the first five of the categories proposed in this chapter plus an additional category for colonial crises.

[5] Two other classes of crises have not been discussed in this chapter, but pose possible challenges for the future. The first of these might be called crises between nature and human societies. From one perspective these natural disasters are among the oldest known kinds of crises – famine, flood, plague, and so on. Few of these would have been regarded as international crises in the past but rather would be recognised as crises experienced by a single society or part of a society. Ecological crises, however, now seem possible in which a number of international actors, if not all of them, are simul-

taneously affected. The disappearance of certain species of commercial fish, air and water pollution, or the alteration of the earth's ozone layer might be suggestive examples. A second type of crisis does not pit human kind against the ecological system nor does it depend on the nature of actors. Instead it results from the relationship between actors – extensive interdependence. As two or more countries become increasingly interdependent, crises that at an earlier time might have been regarded as exclusively domestic become international crises. The collapse of one country's financial system or abrupt change in its form of government could have direct and severe consequences for interdependent partners. Important as these two types of international crises may be for the future, they have not been treated here because little insight into their management can be derived from the type of actors involved.

[6] A useful overview of the emerging forecasting capabilities can be found in the forthcoming book edited by Choucri and Robinson (1977). Many types of data, methods, and models hold some promise of contributing to this enterprise including statistical estimation techniques, econometric analysis, process models, events data, and computer simulations. The latter are thoughtfully treated in Pastusiak (1975).

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