

AN INTERACTION ANALYSIS OF
INTERNATIONAL CRISES:
A STUDY OF THE SUEZ CRISIS
AND THE SIX DAY WAR

Dissertation for the Degree of Ph. D.
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JAMES MICHAEL McCORMICK
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James Michael McCormick

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Political Science


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ABSTRACT

AN INTERACTION ANALYSIS OF INTERNATIONAL CRISES: A STUDY OF THE SUEZ CRISIS AND THE SIX DAY WAR

By

James Michael McCormick

This dissertation evaluates three models of international crisis behavior with data from the Middle East subsystem. The models examined are Graham Allison's organizational process paradigm, Charles McClelland's event/interaction model, and a combined interaction/organizational model. These models are operationalized through international events data from the principal nations involved in the Suez and Six Day War Crises and then evaluated through the use of least squares regression analysis.

In Chapter I, the basic arguments of the crisis models are outlined. The organizational process model is grounded in the work of organizational theorists and economists who argue that the operation of large-scale companies are based upon set procedures of operation. Allison contends that this process also applies to foreign policy-making (including crisis behavior). That is, foreign policy decisions can be conceptualized less as deliberate choices by individual political decisionmakers and more as decisional outputs of large organizations following standard operating procedures (SOPs). Such a decisionmaking

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routine results in incremental changes in behavior from one period to the next. Following this line of reasoning, a fundamental hypothesis emerges for this crisis study: the past behavior of a nation would best predict to the future behavior of a nation at a given time in a crisis setting. McClelland's event/interaction model, on the other hand, views a nation's behavior as a result of interaction patterns between nations. That is, a nation's behavior is depicted more as a response to the behavior of another nation than as a decisional output of organizational routines. This formulation thus provides a second fundamental hypothesis: the behavior received from another nation best predicts to a nation's future behavior. Another hypothesis emerges from McClelland's formulation. He also argues that a "routinization" of behavior occurs from one crisis to the next for the same participants and that they therefore would follow one another's behavior more closely in the more recent crisis when compared with a previous one. Finally, the third model evaluates the additive impact of the organizational process and the event/interaction models upon a nation's behavior. The general hypothesis from this model is: both the past behavior of a nation and the received behavior of a nation predict to the future behavior of that nation.

These hypotheses were specified somewhat in terms of the part of the crisis that they were most likely to operate. The organizational process model was argued to operate better in the less intense phase of the crisis when the stress on the decisionmakers is less severe and the organizational routines are more likely to be employed. The event/interaction model was argued to operate in the more intense phase when an immediate response to the external environment is needed. By

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These hypotheses were then evaluated in the context of the Suez and Six Day War Crises. In order to do this, however, two prior tasks were necessary: (1) the specification of the time span of each crisis, and (2) the operationalization of the crisis models. These tasks were primarily the goals of Chapter III and IV. (Chapter II was devoted to a brief historical sketch of the Arab-Israeli conflict.) In Chapter III, the definitional requirements of an international crisis situation were identified. These included both concepts from the decisionmaking level within a nation (i.e., high threat, surprise, and short decision time) and from the interaction level between nations (i.e., abrupt changes in behavior). These concepts were then operationalized for the Middle East nations involved in the crises, and the time span of each crisis was thus established. Chapter IV was devoted to the description of the collection and the scaling of international events data and how these data were used to operationalize the concepts of the crisis models. This chapter also outlined the technique of regression analysis and the procedures for applying this technique to time-series data.

In Chapter V, the results of the data analysis for both the Suez and the Six Day War Crises are reported. On balance, the data lend only weak support to the models as general explanations of crisis behavior. The hypotheses about the operation of the models in the phases are partially supported. In the less intense phase, we find generally weak support for the organizational process model except for Egypt and Israel in the 1956 crisis. For the more intense phase, the hypothesized event/interaction model received stronger support than for any other model in

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any other time frame. This is especially true in the 1967 crisis where this model (and the combined one) does well for all the nations. In short, while these results point to some inadequacy of these models as explanations of the entire crisis periods, the differences in the phases to suggest that the models have some utility in these instances. Similarly, these results point to the importance of understanding the thresholds of international crisis behavior where internal dynamics give way to external dynamics. Such information has important consequences for future conflict management.

It is also important to note that some nations did particularly well for these models. The behavior of Egypt and Israel tended to follow the organizational process model in the Suez Crisis while the Arab nations tended to follow the event/interaction model in the Six Day War Crisis. While other nations showed some tendency to follow these models, no nation was as successful as these nations. Such results suggest that the models may be more applicable to certain nation-types.

Finally, McClelland's hypothesis on the "routinization" of behavior from one crisis to the next is generally supported. The support for this hypothesis is stronger overall for Egypt to Israel than for Israel to Egypt. Moreover, the more intense phase shows (not unexpectedly) the best support for this proposition.

The last chapter of the study, Chapter VI, summarizes the research and offers a few caveats on the generalizability of the findings. At this juncture, too, suggestions are made regarding future research on these models of international crisis behavior.

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AN INTERACTION ANALYSIS OF INTERNATIONAL CRISES:
A STUDY OF THE SUEZ CRISIS AND THE SIX DAY WAR

By

James Michael McCormick

A DISSERTATION

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To My Family

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In the completion of this dissertation, I am in the debt of a number of people. My committee chairman, Bruce Bueno de Mesquita, however, has been the one person who has most generously given of his time, energy, and ideas to assist me in this research. For his unique blend of scientific rigor and human concern in the guidance of the study, I am most thankful.

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The responsibility and the blame for all errors of fact and interpretation are solely mine.

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CHAPTER I

THE PROBLEM OF INTERNATIONAL CRISIS BEHAVIOR

In recent years students of international politics have witnessed a great increase in the theoretical and empirical study of international crises. A number of competing propositions concerning international crises have been tested using various kinds of real world and simulated data.¹ Charles Hermann recently inventoried some 365 crisis decisionmaking propositions drawn from studies of pre-World War I, the Korean, and the Cuban Missile Crises.² Similarly, Charles McClelland and his associates have suggested (and examined empirically) numerous propositions about international behavior during the Berlin and Quemoy Crises.³ In addition, several other scholars have provided models and explanations for crisis behavior between nations.⁴

Despite such important and ever-expanding research efforts, considerable work remains before a comprehensive theory of international crisis behavior emerges.⁵ As a step toward such a theory, this dissertation examines two alternate models of crisis behavior and subjects them to empirical evaluation. These two models are the organizational process paradigm advanced by Graham Allison and the event/interaction model advanced by Charles McClelland.

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Each of these models focuses on competing concepts to explain the behavior between nations at a particular time. In the present study, each of these models is operationalized through the use of international events data which are drawn from two well-known crises in the Middle East. The models are evaluated through the use of least squares regression analysis.

Before these evaluations can be made, a number of logically prior steps need to be taken. First of all, there must be some conceptualization of what international crises are and some means to identify such situations when they occur in the world. Secondly, there must be careful delineation of how the two models of crisis behavior operate. These two tasks constitute the concern of the following sections of this chapter. However, before getting too deeply involved in these two problems, I think that it is imperative to say a brief word about the rationale for engaging in the study of international crises at all.

Why Study International Crises?

My justification for studying international crises is based both in terms of normative beliefs about the world and in terms of my concern for empirical theory construction in the social sciences. From a normative perspective, the need to understand the crisis phenomenon is only too sharply accentuated by the recent confrontation between the great powers over the Congo, Berlin, Cuba, and Vietnam and by the frequent "local wars" between the Arabs and Israelis or the Indians and Pakistanis. Such conflicts kill and maim countless humans every year, and, in addition, threaten to plunge the world into nuclear holocaust.

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A concern for the survival of mankind, then, constitutes sufficient research imperative to secure knowledge of the particular conflict processes that leads to such possibly heinous outcomes.

Likewise, systematic studies of international crises should be extremely helpful for the decisionmakers of any state. If, as I assume, states seek to avoid crisis situations, or, at least, seek to "manage" crises once they occur, it is essential that there be some awareness of why crisis behavior changes and what makes it change. For it would seem that only in this way could the competing states (or "third parties") adopt appropriate "intervention strategies" to control the extent of the conflictual behavior.

From the perspective of the social scientist, knowledge of international crisis processes is important in any attempt to build a general theory of international behavior. For, as Randolph Siverson contends, ". . . without having relatively well-developed explanations for those periods of international activity which are so critical to the future course of events,"⁶ a general theory of international politics is probably not possible. I am in essential agreement with such an assertion. Moreover, this concern with theory construction is closely tied to the desire for normative action. For it can be argued that without rigorous systematic theory construction, the hope of outlining meaningful "intervention strategies" is considerably weakened. In short, it would appear that normative goals for the management of international crises can best result after careful empirical explanations of how the crisis process operates.

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The Concept of International Crisis

With such a basic normative and theoretical orientation, the fundamental step for the investigation of international crisis behavior is the identification of what constitutes a crisis situation between nations. Such a task has plagued crisis researchers for some time and has resulted in a great variety of meanings for international crisis.⁷ The basic problem is that the scope of the concept is ambiguous and vague and thus makes it extremely difficult to employ widely accepted empirical indicators. While some vagueness in the use of concepts is necessary by the very nature of the scientific enterprise,⁸ excessive amounts lead to a relativism that is self-defeating.⁹ In some respects, this condition has already affected the crisis concept. For it can be stated rather forcefully that there exists no generally accepted definition of the concept,¹⁰ but only a vague imagery of what the concept entails.¹¹

This condition should not imply that attempts have not been made to specify the definition of a crisis. To the contrary, the literature in international politics, and in various other disciplines, such as economics, psychology, and sociology, are replete with examples of the elusiveness of a common meaning for crisis.¹² What does emerge from any cursory review of these attempts is clear: the general orientation of the observer makes considerable difference in what constitutes a crisis situation.

In this regard, the differing orientations to the study of international politics seemingly have had a great impact on the conceptualization of international crises. To simplify considerably, the two most widely-used kinds of analysis in the study of international

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These two types of process analysis have produced a variety of dimensions for understanding international politics, including a consideration of the constraints and requirements of the international system,¹⁴ the differing distribution of national attributes,¹⁵ the role of perceptions of the decisionmakers of a nation,¹⁶ and the pattern of behavioral outputs of the nation.¹⁷ While such a listing is neither exhaustive nor mutually exclusive, it does suggest the diverging impact that those modes of analysis have had on the discipline.¹⁸

At the same time, these two modes of analysis have also influenced crisis research; that is, there are those who either identify the conceptual elements of an international crisis in terms of the decisionmaking (or organizational) mode or in terms of the interaction (or systemic) mode. This somewhat artificial separation is evident when one surveys any of the recent writings on crises, and is particularly obvious when one examines review articles on the

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international crisis concept. For example, reviews by James Robinson, Oran Young, and Charles Hermann, among others, reflect this apparent dichotomy. Robinson rather briefly outlines the various procedural and substantive definitions of crisis and extensively reviews the "crisis as a decision situation" notion. He emphasized the role of the decisionmaking unit for defining a crisis situation.¹⁹ Oran Young, on the other hand, spends almost the entire effort in seeking to move toward a definition of international crises from the systematic point of view. He concentrates on the changes in the relations between states for identifying an international crisis situation.²⁰ Finally, Charles Hermann offers a more balanced view of the research on international crisis and focuses on the two major directions in such studies. Moreover, Hermann posits two general modes of conceptualizing international crises: crises as traits or characteristics and crises as turning points.²¹ The former mode usually concentrates on the decisionmaking process and the perceptual elements of the key decisionmakers while the latter concentrates on the interaction process and the actual behavioral outputs of competing nation-states.

Crisis as a Decisionmaking Phenomenon

For crisis-decisionmaking researchers, such as Hermann and Robinson, a crisis situation is defined in terms of the decisionmakers' "definition of the situation." As the decisionmakers' view of the international environment is altered by the behavior of another state or states, a crisis situation sets in and becomes an "occasion for decision."²² In essence, the perceptions of the decisionmakers are crucial for identifying an international crisis for these particular

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researchers. Similarly, Charles Hermann argues that an international crisis is "a situation that (1) threatens the high-priority goals of the decisionmaking unit; (2) restricts the amount of time available for response before the situation is transformed; and (3) surprises the members of the decisionmaking unit when it occurs."²³ In addition, he reiterates that his definition is formulated from the perspective of the decisionmakers who are experiencing the crisis: "that is, the situation threatens their goals, it surprises them, and it is they who are faced with short decision time."²⁴

At the same time, some of these researchers assert that a number of associated perceptual changes occur in the decision unit during a crisis situation. These changes deal mainly with a perceived decrease in the level of bureaucratic functioning²⁵ and a decrease in the ability of the individual decisionmakers to cope with the stressful situation.²⁶

Yet for these researchers, the most common element for identifying an international crisis situation is the increase, to some intolerable level, of perceived threat.²⁷ As this perception of threat or hostility increases, the decisionmakers feel more and more compelled to adopt suitable actions to alleviate such a condition. Numerous empirical findings support the assertion that hostile behavior is likely to be the result of these perceptions (and misperceptions) of threat.²⁸ As a result, a "conflict spiral" is likely to set in and possibly lead to the outbreak of war. Researchers associated with the Stanford Studies of International Conflict and Integration have demonstrated this common perceptual pattern in international crises and its effects on inter-nation behavior:

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If State A either correctly or incorrectly perceives itself threatened by State B, there is a high probability that A will respond with threat or hostile action. As State B begins to perceive this hostility directed toward itself, it is possible that B, too, will behave in a hostile (and defensive) fashion. This threatening behavior by B will convince A that its initial perceptions were correct, and A will be inclined to increase its hostile (and defensive) activity. Thereafter, the exchanges between the two parties will become increasingly negative, threatening and injurious.²⁹

While this perceptual conceptualization seems in many ways adequate and useful, a number of critical problems exist for specifying the onset of an international crisis. This conceptualization does not identify the level of perceived threat necessary for the onset of a crisis beyond suggesting that the threat must jeopardize core values. Nor does this specification identify the point at which a perceived threat becomes so severe that a commitment to some decisive action is likely to take place. In short, the linkage between the level of perceived threat and the likelihood of inter-nation behavior is not clear.

Also, this conceptualization does not go very far beyond the individual decisionmaking unit for identifying the onset of a crisis situation. That is, a "crisis" could conceivably not exist beyond the perceptions of the individual decisionmakers. As a result, a "crisis" may indeed exist within the bureaucracy, but it seems somewhat premature to immediately classify it as an "international crisis." Again, what seems lacking is some precise reference to the behavior between nations that accompanies these perceptual changes within the decisionmaking apparatus. In addition, the access to the perceptions of the decisionmakers in the bureaucracy is a severe limitation on this crisis definition.

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Crisis as an Interaction Phenomenon

In contrast to the crisis decisionmaking approach, the interaction theorists tend to concentrate solely on the unique interaction process between states for identifying the existence of an international crisis. To these researchers, an international crisis is defined as a situation in which a set of hostile strategic interactions occur between two or more states and marks some significant shift from their normal set of interactions. This conceptualization emphasizes the change in the behavioral patterns between nations with little or no regard for the perceptions of the decisionmakers within a particular nation. In this sense, then, this conceptualization belongs to the systemic level of analysis of international politics.

Charles McClelland and his associates have defined an international crisis as "a 'change of state' in the flow of international political action . . ."³⁰ or, alternately, as "when . . . a succession of extraordinary inputs begetting new outputs begetting new inputs, etc., between competing parties passes some point in volume and intensity, the whole phenomenon begins to be called an international crisis."³¹ Closely analogous to McClelland's conceptualization is the one advanced by Oran Young. His definition states that a crisis is a process involving a change in behavior over some time span. Here again this definition typifies this particular orientation:

An international crisis is a set of rapidly unfolding events which raises the impact of destabilizing forces in the general system or any of its subsystems substantially above "normal" (i.e. average) levels and increases the likelihood of violence occurring in the system.³²

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This conceptualization also has some critical problems for earmarking a crisis situation. The foremost difficulty occurs in identifying the thresholds in the behaviors that mark the beginning and end of a crisis situation. Essentially one must determine the "normal" relationship between states before this definition of an international crisis becomes applicable. However, because the "anchoring" of the "normal" behavioral relations between states is only beginning to be systematically researched,³³ this problem is extremely difficult to overcome at this time. In addition, even if the norm were specified, the pattern of interactions between any pair of nations usually does not consist of a "smooth" curve; consequently, the "normal" and "abnormal" behaviors would still be problematic. Therefore, a certain amount of arbitrary specification of interaction thresholds is a necessity for these researchers. Moreover, these scholars usually cannot defend such research decisions on theoretical grounds.³⁴

When considered in contrast to one another, each of these approaches to defining crises identify different indicators--one examines perceptual elements in the decisionmaking unit, the other examines the behavior change between nations. While they are implicitly related to one another (i.e., perceptual modification within the decision unit leads to behavioral change between states lead to perceptual modification) and reciprocal causation seems to occur, the task of explicitly relating them into a common definition of international crisis may not be entirely possible at this time.³⁵ Rather, both major definitional directions seems necessary but not sufficient conditions that accompany an international crisis situation.

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Abraham Kaplan discusses such a situation when he refers to the attribute space of a concept.³⁶ This attribute space means the vertical indicators or set of categories that are observational in the defining of a given concept. While definitions in classic logic require that necessary and sufficient conditions are strictly observed (i.e., all conditions met) for the specification of a term, it sometimes occurs that no one property (or fixed set of properties) seem to run through the whole class that the term signifies.³⁷ In this case, strict use of the term is not applicable but may be temporally applied in that all defining characteristics are not known or are not specified.³⁸ However, in such a situation, the defining conditions are treated as open set of indicators which are conditional and probabilistic for the occurrence of the phenomenon.³⁹ In this sense, the earlier definitions of an international crisis specify necessary (but not sufficient) conditions and shall be treated in this way in this study.

An additionally important point for identifying international crises is that neither set of conditions are relied on exclusively. If they are, potentially serious problems in further crisis research may arise. Specifically, a "crisis" for the decisionmaking theorists may begin earlier (or later) in time than a "crisis" for the interaction theorists merely because of the differences in their criteria. In addition, a more fundamental difficulty may arise. It is conceivable that each "school" may study phenomena that would not be identified as a "crisis" by the other. For example, a "crisis" may occur within a nation's decision structure without the concomitant behavioral manifestations required to mark a change in the interaction

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In sum, an international crisis situation is defined as a situation between two or more nations characterized by such perceptual conditions as high threat, surprise, and short decision time and by such behavioral conditions as a marked change in the frequency and intensity of behavior between the competing parties. However, it needs to be stated quite openly that the interaction conditions for a crisis situation are more easily assessed and more reliance will be placed upon these conditions. However, an attempt will also be made to assess the other conditions of international crises.

Selection of the International Crises for This Study

The criteria that were outlined to identify an international crisis situation will be applied to the Middle East subsystem with particular focus on the Arab-Israeli conflict. It is my intention to delimit two popularly identified crises--the Suez Crisis and the Six Day War Crisis--according to the "conditions" of international crises. While each of these situations intuitively satisfy the criteria that constitute an international crisis, I intend, in Chapter III of the study, to specify how these situations meet the "conditions" of international crises. This task will be done not only by applying the historical accounts of various Middle East scholars and the previous empirical research of students of international politics, but it will

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While such efforts will be undertaken, certain research design decisions still need to be made. In particular, I refer to identifying what nations are to be included in the analysis. Based upon prior accounts of each crisis, the principal actors in the Suez affairs were Egypt, Israel, Britain, and France⁴¹ while the principal actors in the Six Day War Crisis were Egypt, Israel, Syria, and Jordan.⁴² Moreover, I exclude the superpowers, the U. S. and the U. S. S. R., although they play a part in each crisis situation. However, the analysis of their exact role is beyond the scope of this study.

While some will quarrel with such decisions--the exact length of each crisis situation and the principal crisis actors--and some "slippage" is likely to occur, it might be argued that at least an effort at systematic specification of international crises does take place. As I said earlier, all of these concerns will be dealt with more fully in a separate chapter; therefore, let me now turn to the core of the study, the specification of the models that will be evaluated in these particular crisis settings.

Two Models of International Crisis Behavior

Some explanation needs to be developed for the changes in behavior by a nation during crisis situations. The predictors of a nation's crisis behavior in the models under investigation are only limited to the interaction process between the two nations. In this connection, the focus is on two explanatory concepts in international

politics: the past behavior of a state toward its opponent and the received behavior from its opponent. In a sense, each of these concepts represent a distinct approach to the study of international politics. That is, the former concept is used principally by the decisionmaking analysts while the latter concept is used chiefly by the international system analysts. While each of these concepts has produced a number of models of inter-nation behavior, I focus on two existing models of international behavior which employ each of these concepts.

In general, the purpose here is to distinguish which model is most applicable to crisis behavior or to see if some combined model is the best predictor of changes in crisis behavior. In a sense, then, an attempt is made to carry out a crucial experiment on the two models.⁴³ That is, an evaluation of the models should allow one to discriminate between the predictive power of the two alternative models of crisis behavior or, perhaps, point to some more general model of crisis performance.

The two models that I investigate are the event/interaction model developed by Charles McClelland⁴⁴ and the organizational process paradigm proposed by Graham Allison.⁴⁵ While these two models are not the only models from the international system approach or the foreign policy approach, they seem particularly prominent in the crisis literature and have been subjected to only minimal empirical evaluation. To my knowledge, only Raymond Tanter has done any systematic, empirical work on these two models. Tanter has analyzed alliance behavior in the pre-crisis, crisis, and post-crisis periods of the Berlin conflict of

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While Tanter's results for alliance behavior were somewhat disappointing, he notes a number of conceptual and methodological problems in the Berlin study that need careful attention. Aside from these problems, however, an important research question still remains as to whether either model or a combined model would best predict a nation's dyadic crisis behavior. In this light, while drawing on the original models by McClelland and Allison and noting the work by Tanter, I investigate the applicability of these models to Middle East crisis behavior.

Organizational Process Paradigm

In the Essence of Decision, Graham Allison outlines three different models of foreign policy decisionmaking and applies them in a descriptive way to various aspects of the Cuban Missile Crisis.⁴⁷ His second model, the organizational process paradigm, particularly interests us here because it offers at least a partial explanation for the crisis behavior between nations. In this model, interstate behavior is conceptualized less as deliberate choices by individual political decisionmakers and more as the decision outputs of large organizations following standard patterns of behavior.⁴⁸ This is not to suggest that political decisionmakers cannot substantially disturb the organization process but only that they cannot substantially control its behavior. Instead, these large organizations are coordinated through standard operating procedures (SOPs), or established

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rules of decisionmaking, which have been previously devised and are only applied to a given situation.⁴⁹

Such a decisionmaking operation usually results in organizational behavior that is little changed from one period to the next. In fact, the SOPs provide considerable inertia to maintain the same behavior that was previously enacted by the organization. As a result, this decision process has been depicted as incrementalist in nature.⁵⁰ This means that only small deviations from past performance occurs. Changes are only slight and marginal in nature. Moreover, only dramatic disturbances produce dramatic changes in organizational response.

The theoretical underpinnings for such a model are derived in part from the work of a number of organizational theorists and economists. The work of Herbert Simon is especially instructive. In his seminal book, Models of Man, Simon investigates how useful the characteristics of human problem-solving and rational choice are to the functioning of organizations. In particular, his examination of the rationality assumption in individual and organizational behavior is critical to understanding Allison's model.

While granting that the study of organizational process cannot exist without a theory of rational choice,⁵¹ Simon takes exception to the traditional "comprehensive rationality" assumption of economists. For example, it requires "(1) generation of all possible alternatives, (2) assessment of the probabilities of all consequences for all relevant goals, and (3) evaluation of each set of consequences for all relevant goals."⁵² Simon argues that such demands are unrealistic

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both to expect from individuals and individuals in organizations because practical empirical limits exist on human capability.⁵³ Moreover, such an assumption undercuts the very reason for studying organizational behavior:

. . . if there were no limits to human rationality administrative theory would be barren. It would consist of the single precept: Always select that alternative, among those available, which will lead to the most complete achievement of your goals. The need for an administrative theory resides in the fact that there are practical limits to human rationality, and that these limits are not static, but depend upon the organizational environment in which the individual's decision takes place.⁵⁴

Thus, some notion of rationality that takes account of these physical and psychological limits of man's capacity is needed. This, Simon contends, in his principle of bounded rationality:

The capability of the human mind for formulating and solving complex problems is very small compared with the size of the problems whose solution is required for objectively rational behavior in the real world--or even for a reasonable approximation to such objective rationality.⁵⁵

This principle requires the intendedly rational actor to construct a simplified model of the real situation in order to deal with it. Such a model employing bounded rationality introduces such theoretically interesting concepts as "satisficing," "search," "uncertainty avoidance," and "repertoires." These concepts serve to rather sharply accentuate bounded rationality from comprehensive rationality. Satisficing refers to selecting the first alternative that meets some minimum level of satisfaction rather than engaging in the assessment of all alternatives. Search follows from this notion in that the decisionmakers sequentially move to examine each alternative until satisficing occurs. Uncertainty avoidance implies the use of alternative whose outcomes are highly assured rather than estimating the

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In short, Simon argues that this bounded rationality assumption lies at the core of organization process and any theory of action by individuals in complex situations needs to incorporate such an assumption. Moreover, this notion has importantly influenced the theoretical and empirical work of a large number of students of organizational process including the work of Cyert and March, Wildavsky, Crecine, and, of course, Allison.

In this connection, Richard Cyert and James March have recently incorporated this bounded rationality assumption in their study of the business firm.⁵⁷ Unlike the traditional economic theories which explain the operation of the firm in terms of the perfectly rational, economic man in the competitive marketplace (essentially the comprehensive rationality assumption), Cyert and March explain the operation of the firm in terms of its internal operations under conditions of uncertainty and an imperfect marketplace. Three major categories frame their theory--organizational goals, organizational expectations, and organizational choice. These categories are related to one another by four major concepts--quasi-resolution of conflict, uncertainty avoidance, problemistic search, and organizational learning. From these relational concepts, a general model of the decision process of a firm is specified and then operationalized by means of a computer simulation.

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large retail department store by identifying its standard operating procedures.⁵⁸ Such a finding has general implications in that it provides an alternative explanation to the traditional theory of the firm, but, more importantly, for our purposes, it tends to support the contention that organizations make decisions according to the principle of bounded rationality.

While some may immediately argue that such a decision process may be applicable only to organizations in the private sector, students of governmental decisionmaking have found this not to be the case. Rather, this so-called incrementalist model of organizational behavior is widely recognized as a fundamental decisionmaking procedure.⁵⁹ Perhaps the most important theoretical work on governmental decision-making is Aaron Wildavsky's study of the budgeting process.⁶⁰ Wildavsky has empirically verified the existence of an incremental process--a process very similar to the work of Simon and Cyert and March. For example, he finds that the most important determinant of the size and content of a fiscal year's budget is the previous fiscal year's budget.⁶¹

Likewise, John Crecine in his study of municipal budgeting employs a decision model from the organizational perspective. He finds that a "political decision process is not very much different from other organizational behaviors."⁶² Crecine also reports that the internal operations of the organization are for the most part more critical than the external demands of the political system. In addition, other studies on governmental operations lead to similar conclusions about the applicability of the model to governmental settings.⁶³

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Using such literature as a theoretical backdrop, Allison argues for a similar incrementalist or bounded rationality decision model for foreign policymaking. That is, governmental activities are treated as organizational outputs from its various subunits (e.g., Department of State, Department of Treasury, Department of Defense, etc.) within the bureaucracy which are coordinated by standard operating procedures (SOPs). Such SOPs provide programs and repertoires for problem-directed search to arrive at "satisficing" solutions to particular problems.

In terms of the organizational outputs--the activities--the inference is clear. Once standard procedures are operating, there would be little change in the day to day outputs of the organizations on a given question. As Allison argues:

If a nation performs an action of certain type today, its organizational components must yesterday have been performing (or have had established routines for performing) an action only marginally different from today's action. At any specific point in time, t , a government consists of an established conglomerate of organizations, each with existing goals, programs and repertoires. The characteristics of a government's action in any instance follows from these established routines, and from the choice made by government leaders--on the basis of information and estimates by existing routines--among established programs.⁶⁴

In short, Allison states a fundamental proposition of this model:

"The best explanation of an organization's behavior at t is $t-1$. The best prediction of an organization's behavior at $t+1$ is t ."⁶⁵

The real key to assessing the explanatory power of this model is to uncover the organizational routines and repertoires of the organization that produced the outputs. This is a complex and problematic task not only from the point of access to such governmental organizations but also from the point of specifying the decision

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One can only emphasize again that the behavioral indicators are assumed to tap the underlying process that is operating within the organization. In this sense, such notions as standard procedures, organizational search, and organizational learning are not being tested; rather inferences are made to these processes based on the patterns in the behaviors that the organization emits.

Following this organizational model, a fundamental hypothesis emerges that can be empirically investigated. That is, the past behavior of a nation toward another nation predicts the first nation's future behavior toward that nation. In the crises under investigation here, for example, the past behavior of Israel toward Egypt is expected to predict to its future behavior toward Egypt, or the past behavior of Egypt toward Israel is expected to predict to its future behavior toward Israel. Likewise, similar statements could be made about each set of dyads in the crisis situations.

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as was discussed earlier, international crises are usually not construed as normal or routine times--times when the incremental model seems most operative. Rather crises are construed as non-routine times in which the decisionmakers' efficiency and organizational output tend to break down as stress increases. On the face of it, it would seem that the standard operating procedures of the organizational process model would tend to give way to other procedures as the crisis situation deepens.

However, Allison defends his model for these situations by discussing problem-oriented search:

Where situations cannot be construed as standard, organizations engage in search. The style of search and its stopping point are largely determined by existing routines. Organizational search for alternative courses of action is problem-oriented: it focuses on the atypical comfort that must be avoided. It is simpleminded: the neighborhood of the symptom is searched first, then the neighborhood of the current alternative.⁶⁶

Thus, while Allison asserts that some search is necessarily undertaken in these non-normal situations, he also implies the previous alternative are still given considerable weight.

In discussing this model, Raymond Tanter argues a similar point. While he states that during a conflict "the standard operating procedures tend to give way to search process which are more likely to respond particularly to the external environment,"⁶⁷ he continues by saying that the search process begins by examining the prior or existing alternatives because they are close at hand and offer ease for assessing consequences. In essence, then, the past behavior serves as a base line against which deviations are made.

Thus, from this organizational process perspective, there seems to be some threshold where this model would cease to operate fully and

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the nation would respond more directly to the external environment. In a sense, then, Allison's model would seem more applicable to certain parts of a crisis than to others. Moreover, following the reasoning given earlier, his model would be most operative in less intense periods of a crisis when organizational pressures are not as severe and the "noise" from the external environment is not as great.

Modifying the original hypotheses from this model, then, one would now argue that in the less intense phase of a crisis, the past behavior of a nation is more likely to predict to its future behavior than in the more intense phase of a crisis. The phases of a crisis may be non-obvious and thus will have to be determined in a somewhat subjective fashion. While a full discussion of these phases will be given below,⁶⁸ at this juncture, one can say that they will be operationalized by the kinds and severity of behavior across the entire crisis period.

The Event/Interaction Model

In contrast to the organizational process model which views a nation's behavior as a result of the internal decisionmaking apparatus within the state, the event/interaction model views a nation's behavior as a result of interaction patterns between states. In this case, the external environment of the nation is the critical variable. A nation's behavior is depicted more as a response to the behavior of another nation than as a decisional output of organizational routines. In a sense, this model could be described as an action-reaction or stimulus-response model of interstate behavior, but, as we shall see, a more general learning process seems to underlie this model.

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Charles McClelland first laid the theoretical framework for the event/interaction model in his article, "The Acute International Crisis."⁶⁹ In this essay, he essentially argues for a system interaction analysis of international crisis behavior. It is his basic contention that by dissecting the interaction pattern between nations, one may be able to identify the numerous sequences of related acts and that these sequences may be compared across a number of crisis situations. Put in a slightly different way, by separating and reconstructing the sequences of events into interaction chains, the forms and patterns of crisis behavior achieves an identifiable structure which falls into a number of patterns. Moreover, so-called "Richardson effects" between nations may be identified.

In addition, McClelland contends that as nations move from one crisis to another, definite "routine" patterns of interaction tend to develop between the competing states. McClelland argues that:

The interaction patterns ought to show evidence of bids countered by bids, claims countered by claims, stalemates, standoffs, postponements, and no-win, no-solution outcomes; barring upheavals in the system or environmental innovations, the general trend should be toward repetitions of such patterns of action but with a decreasing volume of interaction in succeeding crisis (i.e., less action in the mobilization and demobilization of the crisis).⁷⁰

McClelland has empirically examined a number of these propositions in his work on the Berlin and Quemoy Crises. For example, in the Berlin study he finds some "routinization" of behavior between the East and the West for the years 1948-1963.⁷¹ Moreover, there seems to be a general trend toward decreasing variety in the actions of both East and the West and the tendency to "couple their behavior more closely."⁷² In addition, McClelland reports that the volume and variety in the later Wall Crisis of 1961 were at a lower level than

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the Blockade Crisis of 1948.⁷³ In other words, at least partial support exists for his contention about the impact of succeeding international crises.

While McClelland may be able to identify "Richardson effects" and the "routinization" of behavior between nations, he does not directly address himself to the underlying assumptions that would explain why certain interaction patterns would hold between nations. Rather, he only explains the continuity of such patterns by referring to the international situation and structure.⁷⁴ Raymond Tanter, however, has extended McClelland's argument and has suggested an explanation for the sequences of event interaction patterns that may be observed. Basically, Tanter posits that a general learning model may account for the behavioral regularities between nations. Moreover, he refers to behavioral psychology and socialization theory to explain the possible similarity between interpersonal and interstate relations.

Tanter's position is that a parallel process operates between the socialization of individuals and the socialization of nations. A basic contention is: while the behavior of individuals often results from a learning process, so, too, the behavior among nations will reflect such a process. At the interpersonal level, learning, which is the core of the socialization process,⁷⁵ consists of training individuals to engage in behavior which is consistent with the social patterns and values of their culture. Such a process is facilitated by offering cues for acceptable forms of behavior and employing rewards and punishments for desirable and undesirable actions. In addition, imitation is also an important and powerful dimension to this learning process. This allows an individual a model of behavior

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Extending this argument to the international system, nations also learn to interact with other states based upon prior reinforcements for some behaviors rather than others. Also, nations are exposed to the imitation process by observing the behavior of other nations. In this way, then, if a learning process is, in fact, operating between nations, reciprocal interaction patterns (as McClelland contends) should exist between nations.⁷⁷

The plausibility of this learning theory argument to explain these patterns of interaction is partly supported by a number of students of international politics.⁷⁸ They argue that nations are most likely to recall learned behavior from the most intense phase of a conflict and that reciprocal interactions would be greatest at that point. For example, Oran Young has argued that such a mutually contingent interaction process will rapidly increase as the intensity of the conflict increases.⁷⁹ More specifically, Nazli Choucri and Robert North argue this same point in discussing their three models of international behavior.⁸⁰ Their "crisis model" in particular assumes that a nation's involvement in a conflict is a response to the behavior of its opponent.

The evaluation of this event/interaction model, with its underlying assumption about learning between nations, requires data on the prior reinforcement schedules between states as well as the present interaction patterns. The prior reinforcement schedules would then be expected to predict to the present pattern of interaction. Obtaining information on these reinforcement schedules is indeed problematic in

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that it requires considerable knowledge on a variety of dimensions of interstate relations including the long-range interaction patterns between various states. The identification of such reinforcement schedules is, unfortunately, beyond the range of this inquiry. However, as an alternative strategy for evaluating this model (and one which Tanter suggests), the knowledge of present interaction patterns may be used to infer prior reinforcement patterns between states.⁸¹ That is, if certain patterns emerge in the data, one can infer that certain patterns of behavior were previously learned by participating states.

While such a strategy is clearly less desirable than knowing the reinforcement schedules between states, it may, in fact, assist us in establishing such reinforcement schedules for further research on this model. In this sense, then, the effort here is a first-cut of a considerably more complex problem of understanding the interaction routines among nations. At the very least, however, it can shed some light on the viability of the McClelland formulation for dyadic crisis behavior.

From this strategy, then, a basic hypothesis emerges. The behavior received from another nation is argued to predict to a nation's future (or response) behavior. For the nations in this study, for example, one would expect Egypt to respond to the pattern of behavior received from Israel while Israel responds to the pattern of behavior received from Egypt. If these patterns were to hold, one could infer that an action--reaction process occurs between these states, but more importantly, that a learning model seems to underlie such behavioral regularities.⁸²

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This hypothesis has to be specified slightly to incorporate the notion of crisis phases. In contrast to the hypothesis on the less intense crisis phase where the organizational process model was not applicable, the hypothesis from this model will be most applicable to the more intense crisis phase. This follows from the argument that the level of interdependence between states is increasing rapidly and the learning behavior should be greatest during such period. Modifying the original hypothesis, it reads as follows: in the more intense phase of a crisis, the received behavior of a nation from its opponent is most likely to predict to its future (or response) behavior toward that nation.

Another important hypothesis from McClelland's formulation would also be expected to hold here. This hypothesis would further reflect whether the learning model is operating. Recall McClelland's contention that the "routinization" of behavior would increase as particular nations go through more crisis situations. If learning were occurring, one would expect the later crisis to be more routinized. In the cases under study here, one would expect that the "routinization" of behavior would increase from the Suez Crisis to the Six Day War Crisis. This hypothesis is capable of empirical investigation by noting whether the behavior between participants in the Six Day War Crisis more closely parallels one another than the behavior between the same participants in the Suez Crisis.

A Combined Model

At this point a note of caution and reflection is in order. Even if the hypothesized patterns are observed, and they tend to

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support either one (or both) of the models, this would not necessarily imply that either of these models is operating. First of all, considerably more collaborative evidence from a number of crisis situations would be needed. Secondly, perhaps more direct measures of the learning process between states and the standard operating process within a nation may need to be developed. Thirdly, it may be the case that these models are really not as incompatible with one another as they seem to be on first glance; rather, they may be part of a more comprehensive crisis model. This possibility is at least suggested by the fact that both models deal with learning.

In this connection, by examining a model which combines the particular dimension of each model, one may be able to suggest if the models seem to reflect some more comprehensive model. On the other hand, such a procedure would also help one to see if the models can really be separately identified from one another. For example, it may be the case that the models are indistinguishable from one another during certain periods of crisis behavior and that they have not been sufficiently specified to analyze them empirically.

At any rate, the examination of a combined model will also be done here. That is, both the past behavior of a nation and the received behavior will be used as predictors of future (or response) behavior of a nation. In the cases here, for example, both the past behavior of Egypt toward Israel and the received behavior of Egypt from Israel would combine to predict to the future (or response) behavior of Egypt toward Israel.

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In sum, the evaluation of these models should help us to decide which model (if either) is operating in the crisis situations and suggests ways that these models may need to be reconceptualized or reevaluated.

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FOONOTES--CHAPTER I

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⁷³Ibid.

⁷⁴McClelland, op. cit., 1961, pp. 194-204.

⁷⁵Kenneth Langton, Political Socialization (New York: Oxford University Press, 1969), pp. 9-10. Also see Neal E. Miller and John Dollard, Social Learning and Imitation (New Haven: Yale University Press, 1941).

⁷⁶Langton, op. cit., 1969, p. 10.

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⁷⁷Tanter, op. cit., 1971, pp. 8-9.

⁷⁸See, for example, Oran Young, op. cit., 1968, p. 19; Walter Corson, "Conflict and Cooperation in East-West Crises: Dynamics of Crisis Interaction" (unpublished Ph.D. thesis, Harvard University, 1970); William A. Gamson and Andra Modigliani, Untangling the Cold War (Boston: Little, Brown and Company, 1971), pp. 9-10; and Thomas C. Schelling, The Strategy of Conflict (Cambridge: Harvard University Press, 1960), pp. 15-16.

⁷⁹Young, op. cit., p. 19.

⁸⁰Nazli Choucri and Robert North, "Dynamics of International Conflict: Some Policy Implications of Population, Resources, and Technology," World Politics (Special Issue), in press.

⁸¹Ibid.

⁸²This approach does not evaluate the combined effect of Egypt and Syria's behavior, for example, on Israel's response. This task would clearly require a more elaborate model involving some relative ranking or weighting scheme of the impact of particular nations over others. Such a ranking scheme would need to be developed based upon the interaction "map" of a nation (i.e., the nations that it interacts with) and the ranking of these nations on some "importance" dimension. Such rankings could then, perhaps, be combined with the intensity and frequency of behavior and provide a more elaborate (and hopefully more accurate) predictor system for a nation's behavior.

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CHAPTER II

THE HISTORICAL BASES OF THE ARAB-ISRAELI CONFLICT

Introduction

In order to understand more fully the basis of the Middle East crises which I shall subsequently examine, some familiarity with the reasons for the firm commitment by both the Arabs and the Jews for Palestine is essential. This chapter attempts to provide this brief historical resume of the rivalries between these two peoples. Historical, cultural, and religious arguments will be advanced to explain the underlying conflict prior to, and after the establishment of Israel. While the discussion by necessity will be rather cursory, it will attempt to cover the important positions advanced by the two parties. Moreover, this chapter will also provide the background for the delimitation of the crises in the following chapter.

The Religious and Cultural Attachment to Palestine

The land known as Palestine¹ has been the focal point of numerous conquests and reconquests in ancient and modern times. Palestine has been under the hegemony of such diverse peoples as the Persians, the Romans, the Christians, the Muslims, the Ottoman Turks, and the British and the French. However, it can well be argued that

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traditional religious and cultural ties to this territory belong only to the Arabs and the Jews.² A brief look at the shifting control of this territory throughout history not only buttresses this argument, but more importantly, provides considerable insight into the reasons for the firm commitments of both Arab and Jewish peoples for this particular territory. At the same time, it provides an understanding of the continuing hostility between these peoples.

The Jewish Tradition

The Jewish claim to Palestine dates from Biblical times. The deposition of Palestine for the Jewish people was, it is argued, originally made to Abraham in the Old Testament: "And I will give unto thee, and to thy seed after thee, the land wherein thou art a stranger, all the land of Canaan, for an everlasting possession (Genesis 17:8)."³ Such a covenant is frequently cited as the foundation of Jewish attachment to Palestine.

Even with this Scriptural imperative, such a covenant was not soon to be fulfilled. In particular, the Jewish right to the land of Palestine and their occupation of this territory was seriously altered by the Roman conquest. From about 66 A.D. to 70 A.D., the Jewish people rebelled against the Roman occupations.⁴ As a result of this rebellion, which eventually resulted in the destruction of Jerusalem, a great number of Jews were killed and others were thrown into slavery. But many managed to escape in what is traditionally called the Diaspora, or Scattering, and eventually settled in every part of the then known world from Spain to China.

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Some small Jewish communities did remain in Palestine throughout many centuries, but it was not until the establishment of the state of Israel in 1948 that the Jewish people were ever again to control this territory. This great dispersion of the Jewish community did not lessen their desire to gain (or regain) the Jewish "homeland." As will be demonstrated shortly, the leaders of the Zionist movement in the late nineteenth century recalled this ancient religious imperative as they sought to reclaim their land.

The Arab Tradition

The basis of the Arab connection with Palestine began somewhat after the Jews. Yet, it too started as a religious attachment. In the seventh century, Semitic tribes, motivated by Mohammed's new religion, came from the Arabian Desert and conquered Jerusalem in 638 and Caesarea in 640.⁵ Palestine became part of the Muslim civilization which eventually spread from the frontiers from China to Northern Africa. A fundamental Muslim religious doctrine, however, provides for the continued sacredness of the Palestinian area. It is held that Mohammed had been transported miraculously to Jerusalem prior to the ascent to the Seventh Heaven.⁶ Later, the Dome of the Rock complex, along with the al-Aqsa Mosque, was built to commemorate Mohammed's pilgrimage. Thus, Jerusalem has been regarded as the third most holy city of the Islamic faith, after Mecca and Medina.

While such statements reflect the religious attachment to Palestine by the Arabs, they do not really reflect the strong cultural attachment to this region. A brief sketch of the historical picture in the Middle East may clarify this attachment. First of all, the

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development of a strong Muslim Empire over a thousand year period firmly embedded this attachment to the Palestine area. Secondly, despite considerable occupation by other powers after the sixteenth century, the Arabs were able to remain remarkably homogeneous in their cultural commitments.

Under the Umayyad family of caliphs, the religious forces of Islam were transformed into a viable Muslim state. These Muslim caliphs are the ones who, as political realists, often could not and did not meet the principles of government and law as formulated by the theologians from the holy city of Medina, but were able to establish the needed political and social institutions of the expanding empire.⁷ Similarly, under the Abbasid family of caliphs (ca. 750 to 1250), Islamic society prospered. These caliphs developed the cultural flowering of the Muslim world. The works of the Greco-Romans, the Iranians, and the Hindus were translated into Arabic and assimilated into Muslim culture.⁸ In addition, ancient theology, jurisprudence, philosophy, science, and the humanities were preserved in this Arab culture and language. Thus, it is often said that the Muslim culture reached its peak during these years of Abbasid rule with Baghdad, its intellectual and cultural capital.⁹

Slowly, the Islam empire began to decline. Rivalries developed among competing caliphs. The Seljuk Turks, hired as mercenary to preserve the empire, began to gain independent influence. The Crusaders from the Western world also invaded this area and controlled various regions over a span of two hundred years (1094-1294). In addition, the Mongols from the East and the Mamluks from the West

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(Northern Africa) began to make inroads in the region. Eventually, the former Muslim Empire was conquered by the Ottoman Turks.¹⁰

The impact of this Muslim civilization upon the area was clear: its most enduring results were cultural and social. This area of the eastern Mediterranean was to be forever identified with this Muslim or Arab heritage. Perhaps the noted Middle East historian William Yale most fully expresses this point and, ironically as well, identifies the main source of opposition to this Arab culture:

Since the Arab culture of this whole area in the seventh century it has been the Arab world of Asia irrespective of who ruled over it. The former civilizations were in part assimilated and in part superseded by the Arabic culture. Although important minorities remained Christian, Arabic culture became the language of all. Irrespective of their previous culture and of their religion and creed the people became Arabs. Fundamentally, this situation in no way changed until the great migration of Jews to Palestine in the twentieth century created a Jewish enclave alien in language and culture.¹¹

This argument regarding the establishment and continuance of an Arab cultural attachment for the Middle East is no less true even with the eventual domination of the region by the Ottoman Turks beginning in the 1500's and the Great Powers beginning in the 1800's. In fact, it can be cogently argued that the Ottoman rule was beneficial to the continuance of distinct cultural ties for this region by the Arabs. The basis for such a statement can be attributed to two main factors: (1) the governing principle of "indirect rule" by the Ottomans,¹² and (2) the convergence between the Ottoman and Muslim political and cultural institutions.

This first policy of indirect rule meant that the basic control was left in the hands of the pashas, or provincial governors, who in turn could allow the local families of the region semi-autonomy if

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they desired. The extent of local control depended to a considerable degree upon the assertiveness of the pashas and the local families. Moreover, considerable evidence supports a high degree of local autonomy.¹³

Secondly, the Ottomans were not so distant from the Muslims in religion or cultural outlook that they necessarily wanted to replace them. Quite to the contrary, the Ottomans clung very closely to the basic Islamic institutions in regard to religion, education, and law. Much of Ottoman law followed the jurisprudence established by the Muslim Arabs. In the educational area, too, Muslim traditions were elaborately followed and supported by the Sultans and the Ottomans.¹⁴ In effect, then, the Islamic impact was preserved because the Arabs were able to dominate the basic institutions of socialization within the Ottoman Empire.

With the decline of Ottoman control over its empire in the late eighteenth century, several European Powers began to make inroads into this Mediterranean area. At various times, Great Britain, France, Russia, Prussia, and Austria-Hungary possessed spheres of influence in this area. Great Britain and France, of course, were particularly prominent in gaining hegemony over what is modern-day Egypt, Jordan, Lebanon, Syria, and Israel. While these two nations left a great political and cultural legacy in the region, it can equally be argued that these very attempts to impose foreign values and beliefs on this area sparked to no small degree the rise of Arab nationalism in the late eighteenth and nineteenth centuries. Moreover, this opposition to the European Powers seems to underscore and provide a rationale for

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The Emergence of Arab and Jewish Nationalism

The Rise of Arab Nationalism

The first important effort on behalf of Arab nationalism was led by Mohammed Ali.¹⁵ Ali rose to prominence in the early 1880's in part as a result of the failure by Napoleon and the French to establish hegemony over the Middle East from 1798 to 1801. The French, in an attempt to maintain some influence in the region and not outrightly allow British control, covertly assisted the young nationalist Ali and his expansionist policies. Ali secured his rule over Egypt and autonomy from the Porte and began a program of modernization under French social and cultural influence. In addition, Ali also attempted to expand his influence and make himself an independent force in the region.

Angered over the lack of territory given him by the Sultan for his part in putting down the Greek revolt, Ali turned toward the conquest of Syria and Palestine. With the aid of his son, Ibrahim Pasha, Ali controlled the Middle East beyond Syria to within 150 miles of Istanbul by 1831. At this juncture, however, a bargain was struck with the Sultan which allowed Ali to retain Crete, Egypt, Syria, Adana, and Tursus under nominal Ottoman suzerainty if he would stop his expansionist policies.¹⁶

Despite this apparent halt to Ali's conquests, his actions frightened the British, who were now assisting the Sultan as well as increasing their own role in the region. Especially serious, the

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British claimed, were Ali's actions that suggested expansion into the British-controlled Persian Gulf and Southern Arabia. Thus, Britain's Lord Palmerston decided that action had to be taken to stop Ali. In July 1840, Palmerston reached an agreement with Russia, Austria, Prussia, and the Ottoman Empire by which Ali was presented with an ultimatum on expansion. Ali refused. Accordingly, the British and Ottoman forces blockaded and occupied Beirut and Akka. As a result, Ali (and his son Ibrahim Pasha) gave up their territory in the Middle East, although Ali was allowed to maintain control over Egypt until his death in 1849.

As a result of this Second Syrian War, Great Britain now became the virtual watchdog of the Ottoman Empire and possessed considerable control over the region. In fact, British influence continued to grow until it eventually occupied Egypt in 1882. The take-over mainly resulted from the inability of Ali's successors to stop the rising national debt and disastrous domestic economic policies.¹⁷

British rule in Egypt (which lasted some seventy years until 1952) did begin to solve its economic problems. Sydney Fisher briefly summarizes the results of Egyptian occupation:

Egyptian finances were straightened out; and the foreign debt, though remained large, became manageable. Irrigation was improved and considerable land subjected to perennial irrigation which greatly increased yields per acre. The Delta Barrage was reconstructed and the Aswan Dam built. As imports and exports doubled and trebled, national income arose appreciably. . . .

In technical and purely administrative services British occupation generally brought improvements. . . .¹⁸

Despite the success of the British in improving economic life, however, the increasing rigid and autocratic rule of the British governors was a source of discontent for large segments of the

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population. For many people, a great internal struggle occurred over the economic success that Western occupation had brought on the one hand, and the cultural ambivalence and change by these same forces on the other. One writer has nicely described these cross-pressures:

They (the residents) were daily torn between two worlds, that of the Muslim East and that of the Christian West. In times of stress they turned first to one then to the other. They maintained their spiritual and religious affiliations with the Muslim world of the Ottoman Empire, but they sought national advancement through the patronage of Western Christian powers.¹⁹

With these tensions, the rise of new spokesmen for Arab nationalism was a rather expected phenomenon. The new movement began rather naturally in Egypt than elsewhere in the Middle East because here was the more serious threat to European domination. However, other movements did gradually develop in other areas of the Palestine region, particular in the Sanjak of Lebanon.

One new Arab nationalist movement was led by Mustapha Kamil of Egypt. He worked endlessly to awaken national consciousness through the founding of schools, lectures, and the establishment of a newspaper, al-Liwa. In addition, his most important action was the creation of a National Party (Hisb al-Watani) of Egypt.²⁰ While his success was limited, his efforts inspired the growth of a number of other national parties prior to World War I in Egypt. Among these were the People's Party (Hizb al-Umma), the National Free Party, the Pro-Khedive Party of Nobles, the Party of Independent Egyptians, and the Party of Young Egyptians. All the parties shared the common cause of ending British rule and moving toward Egyptian sovereignty and independence.

While this nationalist fervor was perhaps greatest in Egypt, an area of direct foreign occupation, a number of Arab movements were

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developing in the rest of the Ottoman territories as well. The Ottoman Arab Fraternity arose in 1908 which had as its aim "to defend the Ottoman constitution, promote the welfare of Arabs and foster the observance of Arab customs."²¹ As this society was suppressed by the Turks, a number of secret Arab societies quickly arose. The "Literary Club" was the first secret forum for this growing Arab consciousness. Although it overtly disavowed political activities, "it was impossible to prevent Arabs . . . from discussing political philosophy as it pertained to the Arab situation."²² The Ottoman Decentralization party was established in 1912 with its aim to organize the Ottoman Empire on a more federal basis. It, too, had affiliates throughout the Middle East. The Al-Fatat society and the al-Abd (Covenant) were the strongest Arab forces in these early years of the twentieth century.²³ They rejected the idea of any integration within the Ottoman Empire of Turks and Arabs and, instead, demanded full Arab freedom and independence.

Concomitant with the growth of these nationalist groups, Hussein, a descendant of Mohammed, was appointed Sherif of Mecca (Custodian of the Holy Places of Islam) by the "Young Turk" rulers who had gained control of the Ottoman Empire. Hussein, however, was not content to assume this idle office but was to set out to gain political control and to thrust himself into a position of leadership in the Arab world for the next decades. In particular, he set out to establish contacts with these nationalist leaders and begin to coordinate their efforts. More importantly, perhaps, he began to communicate with the British over their position if an Arab revolt broke out against the Turks.

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The British position toward such action was negative as they continued to support their traditional ally, the Ottoman Turks. However, the situation changed rather drastically as Turkey entered World War I on the side of Germany. As a result, Hussein was able to extract from the British representative, Sir Henry McMahon, a commitment for Arab independence in the region if the Arab peoples were able to bring pressure to bear on Turkey.²⁴ The Arab revolt of 1916 did that very thing and was considered instrumental in protecting the British flank in the region.

Within a few months of agreeing to these Arab demands after the world war, British did two things which were to retard Arab independence and continue to fuel the flames of Arab nationalism. Firstly, Britain negotiated the Sykes-Picot Agreement which called for the partitioning the Arab world into British and French spheres of influence. Lebanon and Syria were to go to France; Iraq and Jordan to Britain, with Palestine under an international regime.²⁵ Only the Arabian Peninsula would apparently be left for the agreement negotiated with Hussein. This arrangement was nowhere near the arrangement Hussein thought he had negotiated.²⁶ Secondly, Britain issued the controversial Balfour Declaration in November 1917 regarding Palestine. This document (which will be discussed below) gave British support for a Jewish homeland in Palestine and further inflamed Arab nationalism.

In short, Arab nationalism was a potent force in the Middle East by the 1920's in spite (or perhaps because) of these recent setbacks. In addition, the emergence of a competing people for territory which they had long claimed only served to increase this

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The Rise of Jewish Nationalism

The Jewish interest in establishing a national homeland was kindled by traditional yearnings (since the Diaspora) for a united Jewish land, but more importantly by the suffering and persecution endured by the Jewish people in Europe from the early 1880's. The focal point for this homeland eventually became Palestine, a region commanding Jewish allegiance from earlier centuries of religious and cultural experiences. A brief account of the growth of Jewish nationalism, and the support it gathered, is instructive for understanding the severity of the later clashes with the Arabs over Palestine.

In 1897 Theodor Herzl formed the First Zionist Congress with the intent of re-establishing a Jewish national home. At this Congress, a resolution was passed favoring such a home in Palestine. Herzl attempted to persuade the Ottoman government to allow him to charter a Jewish settlement in the Holy Land, but this attempt was unsuccessful.²⁷ Through other channels--particularly the British--Herzl was able to obtain an autonomous territory in Uganda in British East Africa for the Jew. However, the Zionist Congress, dissatisfied with such a proposal, refused this offer by a majority that consisted mainly of Russian Zionists. For this latter group, the only true Jewish national home was Palestine.

With this refusal to accept Uganda, the Zionist movement was splintered, but the Eastern (Russian) Jews were persistent in pressing

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for a Palestinian homeland.²⁸ Toward the end of World War I when the continued British dominance in the Middle East seemed likely, the Zionist movement, led by Chaim Weizmann, was able to extract the Balfour declaration from the British. This declaration issued on November 2, 1917 became the ultimate foundation of Great Power support for Jewish settlement in Palestine. In part, it said:

His Majesty's Government views with favor the establishment in Palestine of a National Home for the Jewish people, and will use their best endeavors to facilitate the achievement of this object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of the existing non-Jewish communities in Palestine or the rights and political status enjoyed in any other country.²⁹

Armed with this declaration, Weizmann attempted to assuage any fears of Jewish domination in Palestine. In fact, Weizmann visited Prince Feisal in Palestine and reached a basis accord on the immigration into the area. In part, the accord stated the following:

In the establishment of the Constitution and Administration of Palestine, all such measures shall be adopted as will afford the fullest guarantees for carrying into effect the British Government's Declaration of November 2, 1917 (the Balfour Declaration).

All necessary measures shall be taken to encourage and stimulate immigration of Jews into Palestine on a large scale, and as quickly as possible to settle Jewish immigrants upon the land through closer settlement and intensive cultivation of the soil. In taking such measures the Arab peasant and tenant farmers shall be protected in their rights and shall be assisted in forward their economic development.³⁰

Unfortunately, the apparent intent of the declaration and the accord was to be a source of contention in succeeding decades in Palestine. Also, the apparent compromise that was reached was soon to be discarded by both sides.

Another international action offered further support for Jewish nationalism and for the establishment of a homeland in

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Palestine. At the Paris Peace Conference at the end of World War I, Great Britain was granted a League of Nations Mandate over Palestine. The mandate allowed, at the expense of the Arabs, that the Balfour Declaration be implemented. This action was adopted despite contrary recommendations of the Arabs to the King-Crane Commissions in 1919.³¹ Moreover, this action also led to the early demonstrations and clashes between Arabs and the Jews in Palestine and signaled the years of turmoil and struggle under the British Mandate.³²

Competing Nationalisms: The Arab-Jewish Struggle for Palestine, 1922-1948

From the beginning of the Mandate, Britain was plagued by the competing national fervor of the Arab and Jewish peoples. While the struggle between these two peoples focused on the fundamental issue of Arab and Jewish rights in Palestine, it also encompassed at least three other issues: (1) the number of Jewish immigrants allowed into Palestine; (2) the distribution of land holdings there; and (3) the general economic conditions of the Jews and the Arabs. These other issues, while separate, clearly fuel the political struggle, and they demonstrate that the conflict was socio-cultural and economic as well as political in nature. Moreover, the failure of the British (and the Arabs and the Jews) to deal with or resolve these issues ultimately led to United Nations partition of Palestine and the establishment of Israel in 1948.

The fundamental issue concerned Jewish and Arab goals and intentions in Palestine. Was Palestine to be merely a Jewish cultural center, or was it to be Jewish state? Or, conversely, was Palestine

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to be an Arab state with a Jewish minority? In addition, were the intentions of the Jews and the Arabs such that they could accommodate one another, or were the goals so diametrically opposed that no accommodation was possible?

In the early years of Jewish immigration, some accommodation was attempted with varying degrees of success.³³ However, by the time of the Mandate, Arab leaders were sufficiently convinced of Jewish intentions that they were reluctant to cooperate in any way. These leaders were certain that the Jews wanted to establish a position of strength through economic and political organization in order to eventually obtain majority status. As a result, the Arabs refused to cooperate in joint Arab-Jewish governing councils suggested by the British in the 1920's. (The Jews, of course, were quite willingly throughout this period to engage in accommodation to improve their bargaining position.) As long as the Jews were represented, the Arabs felt that legitimacy was granted the Jewish position in Palestine.³⁴ Moreover, this Arab non-cooperation was to increase over the years and become increasingly intransigent. For example, the Arabs rejected outright numerous plans by the British and the United Nations for compromising the Palestine problem. This action stemmed largely from their continued belief in the illegitimacy of Jewish rights in Palestine.

The number of Jewish immigrants to Palestine was a constant source of conflict between the Arabs and the Jews during this Mandate period. Along with the number of immigrants, the amount of land that these immigrants would control exacerbated the conflict. In essence,

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these two problems are closely related and can be discussed in the same context.

The immigration of Jewish settlers to Palestine increased rather steadily through the 1930's and then (after the rise of Hitler) rather sharply through 1946. The increase in immigrants obviously enhanced the Jewish socio-cultural homogeneity in Palestine and allowed them to reach a position of considerable influence in the area.

Such immigration frightened the Arabs. They feared the Jewish population would virtually engulf the country. As one Arab sheikh testified before a British commission: "There remains nothing for the Arabs in this country except to die or leave the country."³⁵ In addition, according to one Middle East historian, the Jewish immigration aroused considerable uneasiness among the Palestinian Arabs for more fundamental reasons:

The Palestinian Arabs who had tolerated (and despised) the local Jews were genuinely afraid of the aggressive new immigrants who seemed to belong to an altogether different breed. They resented them for the same reasons that substantial mass immigration has always and everywhere produced tension: peasants were afraid of change, shopkeepers and professional men feared competition, religious dignitaries, whether Christian or Muslim, were anything but friendly towards the Jews for traditional, doctrinal reasons.³⁶

While the increase in Jewish immigration deepened the gulf between the Arabs and Jews, it also moved the Arabs to cooperate more fully with one another. A Supreme Arab Committee (later known as the Arab Higher Committee) was established and included both Arab Christians and Muslims from the region. The Palestinian Arabs also began to obtain substantial outside assistance from the Arab nationalist movement. Finally, concerted Arab actions, such as the Arab uprisings

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Table 1.--Number of Jewish Immigrants to Palestine from 1919-1946.

1919	1,800
1922	8,700
1931	4,100
1936	66,500
1939	29,600
1942	4,200
1946	18,800

Source: Fred J. Khouri, The Arab-Israeli Dilemma (Syracuse, 1968), p. 377.

Table 2.--Population Distribution in Palestine from 1919-1946.

	Total				% Jews
	Arab Moslem	Arab Christian	Non-Jewish Pop.	Jews	
1919	515,000	62,500	577,500	65,300	10.2
1922	590,890	73,024	663,914	83,794	11.2
1931	759,952	90,607	850,559	175,006	17.1
1937	876,947	109,769	986,716	386,084	28.1
1939	848,933	114,624	963,557	424,373	30.6
1942	987,985	126,344	1,114,329	478,449	30.0
1946	1,143,336	145,060	1,288,396	608,225	32.1

Source: Calculated from The Statesman's Yearbook, 1920-1948 by this writer.

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of 1936, were undertaken to demonstrate their uneasiness with the British and the Jews over this immigration issue.

As the immigration increased, so also did the land purchases and land holdings of the Jews in Palestine. While accurate estimates of land holdings are difficult to obtain, even some possibly biased evidence gives support to the general trend. Other evidence, as well, suggest a similar conclusion regarding the increase in Jewish land holdings. For example, consider the stipulation placed on Jewish land purchases: ". . . according to the constitution of the Jewish National Fund, land once acquired could never be resold to Arabs, nor could Arabs be employed on such land."³⁷ Also some argued that the amount of land held by the Jews was less critical than the kind of land (i.e., the most fertile fields) held by them. Needless to say, such increases in Jewish land holdings increased the anger and contempt of the Arabs.

At the same time, the general economic condition of the Palestinian Arabs was also declining in relation to the Jewish immigrants. This fact, in effect, summarizes the results of increasing Jewish control of the land and resources of Palestine. While the exact economic condition of Jews versus Arabs is a point of considerable controversy among many analysts, one writer has stated the point of contention nicely:

If some Arabs suffered as a result of Jewish settlement the number of those who benefitted directly or indirectly was certainly greater. True, if Arab living standards improved, the Jewish settlers were still much better off, and the emergence of prosperous colonies must have caused considerably envy.³⁸

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Thus, while the overall Arab conditions increased, the latter part of the quote is the crucial point: the relative position of the Arabs vis-a-vis the Jews made for the economic conflict between the groups.³⁹ Therefore, while it is often pointed out that the Arab wages were twice or three times as high in Palestine as in Syria or Iraq, the relative Arab wages when compared with Jewish workers were considerably less.

While these issues inflamed the Arab-Jewish political struggle, numerous attempts by Britain to control the degree of immigration and land purchases were relatively unsuccessful. These efforts dated from the recommendations of the Shaw and Hope-Simpson Royal commissions in 1929 and 1930 to the controversial White Paper of 1939.⁴⁰ The White Paper was thought to be a workable compromise to the Palestine problem. It provided for political accommodation and also dealt with the economic and social issues between the Jews and the Arabs. Specifically, the White Paper called for the end of British rule in ten years and the establishment of an independent Palestine ruled by both Jews and Arabs. It also provided for the limiting of Jewish immigration at 75,000 over the next five years and severely restricted land purchases.

Neither side, however, was satisfied with the White Paper. The Arabs feared a breach of promise on the part of the British as had occurred so often in the past. Also, the recommendation called for granting legitimacy to the Jews in Palestine. The Jews, on the other hand, were even more outraged by the British plan. They feared that Palestine would become an Arab state with a suffering Jewish

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minority.⁴¹ In short, although immigration did drop for a time (see Table 1) the British plan lacked consensus on both sides, and the division between the parties was greater after the plan than before.

The British were not yet ready to give up their effort to find a satisfactory solution to the Palestinian question. After World War II, the British and the Americans cooperated on a plan for Palestine, the Morrison-Grady Plan.⁴² The Jews again rejected it outright while the Arabs were again non-committal. Finally, as a last resort, the British called the London Conference of 1946. Britain invited the Arab governments of the region, the Arab Higher Committee, and the Jewish Agency to participate. While the Arab nations accepted the invitation, the major competitors in Palestine were reluctant to attend. Initially then the conference was postponed until January 1947 to give each side time to assess its position. When the Arabs again failed to appear and the Jews met only informally with the British in January 1947, the British government offered one final proposal again involving a partition of the Palestinian territory. But both parties rejected it. Thus the British formally requested the Secretary General of the United Nations to handle the Palestine question in April 1947.

Upon receiving the request for UN action, the General Assembly established the United Nations Special Committee on Palestine (UNSCOP) to investigate the situation. The UNSCOP held four meetings in New York, thirty-four in Jerusalem, two in Beirut, and twelve in Geneva.⁴³ In addition, investigations were also held in Germany and Austria on the plight of the European Jews. During these hearings, the Jewish

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Agency testified, but the Arab Higher Committee was not willing to appear before UNSCOP.

When the UNSCOP reported back to the General Assembly, two major strategies for handling the Palestine question emerged. A majority of UNSCOP members proposed a plan of partition with an economic union to be formed between the partitioned states. Palestine was to be divided into an Arab state, a Jewish state, and an independent Jerusalem under UN Trusteeship. A minority plan for Palestine provided for a federal union consisting of autonomous Arab and Jewish states.

The Arabs reacted by calling the plans, "absurd, impracticable, and unjust."⁴⁴ They threatened to "fight to the last man" to defend their position of assuring that Palestine remained Arab. The Jews, on the other hand, seemed satisfied with the majority plan in that it did guarantee a separate Jewish state. When the General Assembly met in September 1947 and received the report of UNSCOP and the reaction of the Jews and the Arabs, they decided to further investigate the question of Palestine. An ad hoc committee was set up. The proposals that they came up with were remarkably similar to the ones advanced by UNSCOP. The partition proposal (the majority proposal by UNSCOP) was recommended by the ad hoc committee, and it was passed by the General Assembly on November 29, 1947 by a vote of 33-13 with 10 absentions.⁴⁵

According to the General Assembly resolution, the British mandate over Palestine would end, at the latest, by August 1, 1948, and the separate Arab and Jewish states would come into existence no later than October 1, 1948.⁴⁶ In reality, however, the British formally ended their mandate on May 14, 1948, and the Jewish Agency

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proclaimed the state of Israel on the same day. Within hours after the Jewish leaders proclaimed the state of Israel, military units from Jordan, Syria, Egypt, Lebanon, and Iraq began an open assault upon Israel. The Israeli forces retaliated successfully and after some heavy fighting began to take territory that was to be assigned to the Palestinian Arabs under the UN partition plan. By the end of 1948, Israel now controlled over 30 per cent more territory than had been assigned to the Jewish state by the UN partition plan.

From January to July 1949, the UN, principally through the work of Ralph Bunche, negotiated armistice agreements between Israel and the Arab states--Egypt, Lebanon, Jordan, and Syria.⁴⁷ Moreover, the Palestinian Arab state which was called for under the 1947 UN resolution regarding Palestine was never established. Instead Jordan's King Abdullah annexed the West Bank, including the Western sector of Jerusalem. Egypt assumed protectorate control over the Gaza Strip. Israel, as was stated earlier, absorbed the Negev, parts of Galilee, and the other sectors of the City of Jerusalem.

This, then, concludes the brief sketch of the historical setting from which the research is taken. Unfortunately, this does not end the fundamental differences that exist between the Arabs and the Jews. These conflicts continue to this very day. The focus of this research, then, is to examine empirically two recent high points in the conflict between these parties, namely the Suez and the Six Day War periods. Moreover, it is the intent to evaluate the usefulness of the two models of international crisis behavior (from Chapter I), and the implications of each, as partial explanations of the conflict process between the Arabs and the Israelis.

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To accomplish these tasks, I shall first examine empirically whether the Suez and Six Day War periods satisfy the criteria for international crises that were set down earlier and, if so, to delimit the parameters of the crises. Also I will, at the same time, say a brief word about the advantages and limitations of case studies for theory construction in international politics. In succeeding chapters, I shall proceed to the operationalization and evaluation of the models of crisis behavior. Finally, I shall conclude with a summary of the findings and the implications for conflict management in international politics.

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FOOTNOTES--CHAPTER II

¹The boundaries of Palestine remain somewhat vague, but I am roughly referring to the region extending from Gaza and Bir es Saba in the south to Acre, Nazareth, and Galilee in the North.

²It is, of course, true that the Christians have religious ties to Palestine, but they have never made the socio-cultural claims to the region like the Jews and the Arabs. Moreover, the sense of nationalism has been restricted to only these two groups of people.

³Harry B. Ellis, The Dilemma of Israel (Washington, D.C: American Enterprise Institute, 1970), p. 9.

⁴Ibid.

⁵Ibid.

⁶Ibid.

⁷Sydney Nettleton Fisher, The Middle East: A History (New York: Alfred A. Knopf, 1970), pp. 69-70, 77-81.

⁸Ibid., pp. 83-87.

⁹Ibid., p. 86.

¹⁰George E. Kirk, A Short History of the Middle East (New York: Frederick A. Praeger, 1964), pp. 50-56.

¹¹William Yale, The Near East: A Modern History (Ann Arbor: The University of Michigan Press, 1958), p. 188.

¹²This "indirect rule" is consistent with the millet system which was institutionalized in part to reduce religious strife within the empire. Good discussions of these systems may be found in the following: Albert H. Hourani, Syria and Lebanon: A Political Essay (London: Oxford University Press, 1946); Yale, op. cit.; Fisher, op. cit., and Kirk, op. cit.

¹³See, for example, Kirk, op. cit., pp. 59-63; Fisher, op. cit.; and Yale, op. cit.

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¹⁴Perhaps Fisher, op. cit., pp. 208-215 has the clearest and best discussion of these institutional arrangements.

¹⁵A number of Middle East scholars earmark the Ali emergence as the beginning of Arab nationalism. See, in part, Edward Atiyah, The Arabs (Baltimore: Penguin Books, 1955), pp. 73-78; Fisher, op. cit., pp. 279-293; Kirk, op. cit., pp. 98ff.

¹⁶Fisher, op. cit., pp. 282-283; Kirk, op. cit., pp. 78-81.

¹⁷Robert O. Collins and Robert Tignor, Egypt and the Sudan (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1967), p. 62; Kirk, op. cit., pp. 107-112.

¹⁸Fisher, op. cit., p. 291.

¹⁹Christina P. Harris, Nationalism and Revolution in Egypt: The Role of the Moslem Brotherhood (The Hague: Mouton and Company, 1964), p. 66.

²⁰Ibid., pp. 69-73.

²¹Fisher, op. cit., p. 353.

²²Ibid., p. 354.

²³Aliyah, op. cit., p. 88.

²⁴Ibid., p. 94.

²⁵Fisher, op. cit., p. 370.

²⁶Aliyah, op. cit., p. 94.

²⁷Fred J. Khouiri, The Arab-Israeli Dilemma (Syracuse: Syracuse University Press, 1968), pp. 3-4; Ellis, op. cit., pp. 12-14.

²⁸Ibid.

²⁹Ralph H. Magnus (ed.), Documents on the Middle East (Washington, D.C.: American Enterprise Institute, 1969), p. 27.

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³⁰Chaim Weizmann, Trial and Error (New York: Harper and Brothers, 1949), p. 247.

³¹Aliyah, op. cit., p. 104.

³²See Walter Laqueur, A History of Zionism (New York: Holt, Rinehart and Winston, 1972), pp. 211-221 for a discussion of these early clashes between the Arabs and the Jews.

³³Ibid., pp. 224-255.

³⁴Khouri, op. cit., pp. 17-19.

³⁵Quoted in Laqueur, op. cit., p. 245 from the Report of the Commission on the Palestine Disturbances of August 1929 (Shaw Report), London, 1930, p. 58.

³⁶Ibid., p. 233.

³⁷Ibid., p. 245.

³⁸Ibid., p. 247.

³⁹This concept of relative deprivation and its relationship to hostility and violence is discussed most completely in a recent work by Ted Gurr, Why Men Rebel (Princeton: Princeton University Press, 1970).

⁴⁰Khouri, op. cit., pp. 26-27.

⁴¹Ibid., p. 27.

⁴²Ibid., p. 36.

⁴³L. Larry Leonard, "The United Nations and Palestine," International Conciliation (October, 1949), no. 454, p. 631.

⁴⁴J. C. Hurewitz, The Struggle for Palestine (New York: W. W. Norton and Company, 1950), p. 299.

⁴⁵Voting statistics were obtained from Official Records of the Second Session of the General Assembly, United Nations: Lake Success, New York, 1947.

⁴⁶Magnus, op. cit. (The Partition of Palestine: Resolution of the United Nations General Assembly (excerpts), November 29, 1947), pp. 144-146.

⁴⁷Ellis, op. cit., p. 31.

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CHAPTER III

THE TWO INTERNATIONAL CRISES: SUEZ AND THE SIX DAY WAR

While the temporary armistices and the Tripartite Declaration on arms limitation in the Middle East did not produce peace, it did provide a brief interlude in the Arab-Israeli conflict. The next two encounters between these parties provide the focus of this research on international crises: the Suez Crisis of 1956-1957 and the Six Day War Crisis of 1966-1967. In this chapter, I shall specify the limits of these two popularly-identified Middle East crises. In order to do this task, I shall apply the two criteria of international crises from Chapter I to this particular setting. In this way, empirical evidence will be employed to identify the time span of each crisis. Finally, after the crises are specified, the chapter will conclude with a brief word about the advantages and limitations of using such case studies as the context for testing the crisis hypotheses.

The Suez Canal Crisis

Background to Suez

In 1952 Egypt gained full independence from Great Britain in a revolt led by a young colonel, Gamal Abdel Nasser. Nasser rather

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quickly began to solidify his control in the country, as well as to enhance Egypt's position in the region. For example, Nasser began to support the fedayeen raids against the Israeli territory and to tighten the Arab boycott and blockade of Israeli shipping in the Suez Canal and the Gulf of Aqaba. He denounced the Iraqis for joining the Baghdad Pact because the Pact represented continuing Western control in the Middle East. Nasser also moved to end the last vestiges of British influence and control in Egypt by negotiating the removal of British troops from their base at Suez.¹ Furthermore, he alienated the French by selling armaments to the Algerian rebels.

At the same time, Nasser was able to foster a better relationship with the Soviet Union and was able to negotiate a massive arms deal with the Czechoslovakian government in the fall of 1955.² While such actions enhanced his position with the Soviets, it further alienated the Western powers.

Internally, Nasser began reforms to ease the struggling domestic economy. Primary on his list was the New Aswan High Dam Project. The Dam would provide more effective flood control and increase agricultural productivity in the country. Obviously, such a project was extremely costly, and Nasser needed outside assistance. He appealed for American and British help. After initially indicating their willingness to help in this project, the United States and Great Britain balked in their commitment. Angered, in part by this turn-of-events, Nasser announced a drastic measure--the nationalization of the Suez Canal--and stated that the revenues from its operation would be used to finance the Dam.³

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This single act--the nationalization--is often cited as the onset of the international crisis between Egypt, Israel, France, and Great Britain.⁴ In fact, it is true that this action did lead to a whole series of activities between these parties. The result was the Sinai War of October-November 1956 and the intervention of the United Nations and the United Nations Emergency Forces (UNEF) to bring about a ceasefire and a restoration of the situation to one of status quo antebellum. The importance of the nationalization to the British and the French was due to the fact that they both owned portions of the Universal Suez Company and were heavily dependent upon the use of the Canal for their international shipping. In addition, however, Middle Eastern oil--a commodity vital to their existence--necessarily came through the Canal. To the Israelis, the nationalization of the Canal represented a bold signal of Egyptian intentions in the region and a severe threat to their basic security. Nasser, however, saw the nationalization of the Canal as a legitimate step fully within the context of national sovereignty and international law.⁵ In fact, he was able to develop a rather strong case for his position.

Suez: The Perceptual and Behavioral Criteria of Crisis

In other contexts, some researchers have simply chosen to use the period from the nationalization of the Suez Canal, through the Sinai War, and up to the eventual evacuation of all British, French, and Israeli forces from the Canal and Sinai areas in March, 1957 as the Suez Crisis.⁶ While this is intuitively satisfying and seems in accord with the historical record, nevertheless, I shall attempt to

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operationalize the limits of the crisis situation through some empirical evidence. As indicated in Chapter I, an international crisis is defined here by two dimensions, the perceptual conditions of high threat, surprise, and short decision time within the decision unit of a nation, and the behavioral condition of marked changes in the frequency and intensity of actions between parties. Moreover, by ascertaining whether these conditions are met in the Suez situation (and later the Six Day War situation), one is considerably more certain that an international crisis really existed and therefore warrants examination with the models of crisis behavior.

The Perceptual Dimension

One criterion that was outlined to identify an international crisis was the perceptual evidence from the view of the decisionmakers of a nation. As indicated earlier, obtaining this kind of evidence is extremely difficult in that the researcher is usually not privy to the thinking of the decisionmakers on any regular or systematic basis. However, in the case of a number of important leaders in the Middle East, a number of autobiographies, biographies, speeches, and diaries are available which allow some access to the perceptions of the leaders at this particular time.⁷ In the main, such evidence is probably highly impressionistic, but it does capture the feelings and perceptions of the decisionmakers. Moreover, the leaders' sense of threat, sense of urgency, and sense of surprise portrayed by these statements is what is important for defining the crisis situation, not necessarily what the more dispassionate observer may discern. Thus, I examine the views of the British, French, and Israelis around the time of the Egyptian

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nationalization of the Suez Canal in order to discern the importance of this action and to pinpoint the onset of a crisis situation among the various dyads at this perceptual or decisionmaking level.

The British View

While British relations with Egypt had been deteriorating since independence, the nationalization marked a watershed for British-Egyptian relations. Nasser's action this time was too severe and too threatening to go unheeded. The statements of the British leaders clearly bring this feeling out.

The strongest expressed perception of threat and surprise over the nationalization was made by Anthony Eden, Prime Minister of Great Britain. Notified of Nasser's action while attending a state dinner for Nuri al-Said of Iraq, Eden informed the guests of Nasser's action. The guests responded by saying that "here was an event which changed all perspectives."⁸ Moreover, while Eden and Dulles, according to one source,⁹ had considered this response to the cancellation of the loan for the Aswan High Dam, Nasser's actual behavior considerably shocked Eden. Thus, Eden abruptly left the state dinner accompanied by Foreign Secretary Selwyn Lloyd and Lord Home to preside over an emergency Cabinet meeting. Also invited to the session were the French Ambassador, Mr. Chauvel, and United States Charge d'Affaires, Mr. Foster. Eden told the group that the "economic life of Western Europe was threatened with disruption by the Egyptian seizure of the canal. Here was an issue of the first importance, in which an international agreement was at stake."¹⁰ In a telegram to the United States a short time later, he stated considerably more emphatically

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his sense of threat over Nasser's action. He said that he could not allow Nasser "to have his thumb on our windpipe."¹¹

The next day the British Government had more fully evaluated the situation and decided what must be done. Moreover, the following passage not only reflects the danger, or threat, in the situation at hand but also demonstrates the exigencies of time and the demand for vigorous action--even to the point of military action. As Eden relates:

The Government determined that our essential interests in this area must be safeguarded, if necessary by military action, and that the needful preparation must be made. Failure to keep the canal international could inevitably lead to the loss one by one of all our interests and assets in the Middle East, and even if Her Majesty's Government had to act alone they could not stop short of using force to protect their position.¹²

Additional evidence for Eden's view of the gravity of the situation is reflected in a private letter which he wrote to President Eisenhower on the day after the nationalization of the Canal:

This morning I have reviewed the whole position with my Cabinet colleagues and Chiefs of Staff. We are all agreed that we cannot afford to allow Nasser to seize control of the canal in this way, in defiance of international agreements. If we take a firm stand over this now we shall have the support of all the maritime powers. If we do not, our influence and yours throughout the Middle East will, we are all convinced, be finally destroyed.

The immediate threat is to the oil supplies to Western Europe, a great part of which flows through the canal . . .¹³

A flurry of activity took place within the confines of the decisionmaking apparatus. For example, Eden ordered the Chief of Staff to prepare a military plan for the seizure of the Canal as soon as possible. He also arranged for meetings with other nations to seek their help in this matter. In particular, Eden set up a tripartite meeting with France and the United States and informed the Commonwealth nations as well. In fact, by Monday July 30th talks were underway

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between Prime Minister Eden, Secretary of State Dulles, and Foreign Minister Pineau of France, and more talks were planned.

The British view of the situation caused by the Suez nationalization was not isolated to the Prime Minister and his Cabinet. The Opposition Leader, Hugh Gaitskell, expressed a similar sentiment. Gaitskell declared that: "On this side of the House we deeply deplore this high-handed and totally unjustifiable step by the Egyptian Government."¹⁴ Thus, in the initial stage of the crisis, support of action existed across the aisles of the Parliamentary chamber.

Clearly, then, the British government were surprised by this nationalization and saw it as a severe threat to their security. In addition, the emergency meetings among themselves and with their allies in close proximity of the nationalization further satisfies the crisis criteria. That is, they saw a threat that must be dealt with immediately, and the decisionmaking machinery went in to operation.

Furthermore, Leon Epstein in his penetrating study of British Politics in the Suez Crisis¹⁵ indicates that the issue of the Canal was so important that it tended to dominate the British political scene from this period in July of 1956 until the spring of 1957. Thus, while considerable debate went on in the Parliament and in British decisionmaking circles about the exact policies to follow, little debate went on about the urgency or the saliency of the issue surrounding the nationalization of the Suez Canal. On this question, the call for action seemed almost unanimous--"something had to be done."

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The French View

Similar to Britain, French-Egyptian relations were deteriorating especially over the alleged support of the Algerian rebels by the Nasser regime. Yet no event in recent French-Egyptian relations produced the intensity of threat or anger among the French leaders as did the nationalization of the Canal. Firstly, the head office of the Suez Canal Company was in Paris, and the French had played such an instrumental role in the development of the Canal. Secondly, the French saw Nasser's action increasing the tension in Arab-Israeli relations, especially because France was becoming more deeply involved in clandestine military assistance to Israel. Finally, the French were threatened over the loss of oil to Western Europe and the reaction of the Algerian rebels if Nasser was successful in his seizure.

Consider the reaction of Prime Minister Guy Mollet and Foreign Minister Christian Pineau. Mollet perceived the seizure as a very severe threat to the French position in the Middle East, and he relied upon an analogy to Hitler to convey his feelings.¹⁶ The nationalization would also cause more unrest in Algeria. Allowing Nasser to pursue such policies would only encourage the rebels in Algeria. Pineau was less concerned with the Hitler analogy, but he was distraught over the possibility that Europe would be cut off from the Middle Eastern oil. Likewise, Pineau expressed doubts over the continuance of French Algeria if this action was left unanswered.¹⁷

Reflecting on this period some years later, the comments of Foreign Minister Pineau are particularly instructive of his view of Nasser's action and the impact of Nasser's action on French interests:

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[T]he nationalization of the Canal was for Nasser a great success, and among the Algerian people the success of Nasser was a success of the Arab people in general. For us it was very dangerous if we did nothing.¹⁸

Similarly:

For us, nationalization of Canal was very dangerous. First, because Nasser said we do not want Israel Navy to pass through the Canal, and we thought at this period if Nasser does not want, it will be the same for the French Navy, for the English Navy. That is very dangerous because at this period we had . . . some very big interests in the Far East. (sic)¹⁹

Furthermore, the surprise and urgency with which the French viewed the situation is reflected in the rapid series of meetings with the British. As I suggested earlier, within two days, joint consultations were taking place to plan appropriate actions. Also, an immediate note of protest was delivered to Egypt (The note was so strongly worded that the Egyptian ambassador refused to accept it.), and Egyptian assets in France were frozen. Finally, the French Defense Chiefs were ordered to prepare plans for military invasion.

In short, it seem evident that French reaction within the decisionmaking apparatus satisfy the crisis criteria. For France, Nasser's action was perceived as highly threatening and called for vigorous actions. Moreover, they immediately set out to decide upon that response.

The Israeli View

For the Israelis, the nationalization of the Suez Canal did not represent the singular kind of threat to their security that it did for the French and the British. No Israeli leader seemed to perceive the seizure of the Canal as anywhere near as foreboding as the French or the British. The act of nationalization did, however,

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present the Israelis the opportunity it felt it needed to counter Egypt's growing military strength. For Israel, the perception of severe threat from Egypt really occurred with the Czechoslovakian-Egyptian arms deal in September 1955. Particularly prominent in emphasizing this threat (rather than the act of nationalization) were David Ben-Gurion, Prime Minister of Israel, and Moise Dayan, Chief of Staff of the Israeli forces.

Dayan stated early on in his Diary of the Sinai Campaign the imposing threat of the arms deal:

The decisive intimation to Israel of approaching Egyptian attack was the arms deal concluded between Czechoslovakia and Egypt in September 1955. By this transaction, Egypt received a large quantity of modern weapons, and the Israeli Government considered this a preparatory step by the Egyptian ruler towards the fulfillment of his ambitions against her. She also judged that the very possession by the Arabs of arms superior in quality and volume to those available to Israel would spur them to exploit this military advantage and hasten their attack.²⁰

Likewise, David Ben-Gurion makes a similar, strong statement about the severe threat of the arms deal:

[T]he Czech deal, which we had every reason to suppose was based on policy laid down in Moscow, gave Egypt, a country threatening aggression, an overwhelming military superiority over an Israel called upon to defend herself. It confronted us with a danger as had not menaced Israel since the end of the War of Independence.²¹

After the arms deal, changes occurred in the leadership of Israel in favor of decisionmakers who were more militant in the kind of policies that they advocated.²² The pursuance of these policies, however, is an empirical question and constitutes the second dimension of the crisis criteria. However, if Israel did not change its behavior at this point of perceptual change, it could well be argued that the nationalization of the Canal served as the crisis beginning in that, at that juncture, the Israelis not only perceived the gravity

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of the situation, but also could (with the assistance of others) actually do something about it. This speculation, however, is somewhat premature. For it is possible, that the arms deals also marked behavioral change consistent with the perceptual change.

In short, then, let me state that the perceptual change among the Israeli decisionmakers occurred with the arms deal. Now whether behavioral change also occurred must await the examination of the interactions, the behavioral criterion of international crisis.

The Behavioral Dimension

The second criterion for delimiting an international crisis situation is the behavioral dimension. Here the behavioral dimension can be operationalized by examining the behavior patterns between the various dyads of involved nations around the time of the seizure of the Canal. If one can identify a marked change in the frequency and/or intensity of events during a specified period, one can be more secure in calling this the international crisis period. To carry out this test, I have chosen to examine the frequency and intensity of behavior between the dyads on a weekly basis from 1955 through 1957. This length of time, while arbitrary, should be adequate to witness any abrupt change around the nationalization act. I have calculated the frequency of behavior by counting the number of international events directed between the dyads and have calculated the intensity of these same events by scaling each for the amount of violence contained or implied by the use of the Thirteen Point scale. (The procedures for the collection and the scaling of the international events data are outlined in considerable detail in Chapter IV.) Moreover, I would

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expect to find that the highest frequency and highest intensity of international behavior occurred during the period popularly called the Suez Crisis.

If one first visually inspects these data for the French, British, and Egyptian dyads calculated by weeks (Tables 3-6), the differences in the number of acts and the intensity of those acts in the crisis period (late July 1956 through March 1957) and the non-crisis period (January 1955 to July 1956 and April 1957 to December 1957) are considerable. For these particular dyads, little behavior occurred except in the crisis period. This fact, in itself, lends some face validity to our dichotomous classification.

If the raw data are summarized into crisis/noncrisis periods for total and mean number of events and mean intensity of events, the differences become clearer than even the visual inspection allows (see Tables 9 and 10). For the Egyptian-British behavior in the 111 weeks of the noncrisis period, only 113 events occurred: 56 Egyptian-initiated actions and 57 British-initiated actions. For the crisis period, a total of 324 events occurred in only 33 weeks: 195 Egyptian-initiated and 129 British-initiated. For the Egyptian-French interactions, the results are even more distinct for the crisis/noncrisis periods. In the noncrisis period, only 36 actions occurred between the dyad with 26 initiated by France and only 10 by Egypt. In the crisis period, however, in less than one-third of the time (i.e., 33 weeks), 196 events occurred. This time Egypt initiated 120 actions while France initiated 76. Moreover, when one breaks down these data further into the mean number of events per week (as I have done in Table 9), similar differential findings result between the two periods.

Table 3.--Directed Behavior in Crisis/Noncrisis Periods: Great Britain to Egypt, 1955-57.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1955		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	1	6.0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	8.0
April		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
June		
1-7	0	0
8-15	1	6.0
16-23	1	4.0
24-31	0	0
July		
1-7	1	8.0
8-15	0	0
16-23	1	8.0
24-31	1	3.0
August		
1-7	0	0
8-15	1	6.0
16-23	0	0
24-31	3	5.33

Table 3.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	8.0
October		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
November		
1-7	0	0
8-15	1	4.0
16-23	0	0
24-31	0	0
December		
1-7	0	0
8-15	0	0
16-23	1	6.0
24-31	0	0
January 1956		
1-7	2	3.5
8-15	2	8.0
16-23	0	0
24-31	1	6.0
February		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	6.0
March		
1-7	1	6.0
8-15	2	8.0
16-23	1	8.0
24-31	1	8.0
April		
1-7	0	0
8-15	1	4.0
16-23	1	6.0
24-31	0	0
May		
1-7	2	6.0
8-15	0	0
16-23	0	0
24-31	0	0

Table 3.--Continued.

Time Period		Number of Acts/Week	Mean Intensity of Acts/Week
June			
	1-7	0	0
	8-15	1	4.0
	16-23	1	4.0
	24-31	0	0
July			
	1-7	1	6.0
	8-15	0	0
	16-23	1	8.0
April 1957			
	1-7	0	0
	8-15	1	4.0
	16-23	2	5.0
	24-31	0	0
May			
	1-7	0	0
	8-15	2	7.33
	16-23	3	6.0
	24-31	1	6.0
June			
	1-7	1	4.0
	8-15	0	0
	16-23	3	6.67
	24-31	1	4.0
July			
	1-7	0	0
	8-15	0	0
	16-23	0	0
	24-31	0	0
August			
	1-7	0	0
	8-15	0	0
	16-23	0	0
	24-31	0	0
September			
	1-7	0	0
	8-15	0	0
	16-23	0	0
	24-31	0	0
October			
	1-7	0	0
	8-15	0	0
	16-23	0	0
	24-31	0	0

Table 3.--C

Time Period

November

1-

8-

16-

24-

December

1-

8-

16-

24-

July 1956

24-

August

1

2

September

October

November

December

January

Table 3.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
November		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
December		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Crisis Period		
July 1956		
24-31	7	7.71
August		
1-7	4	8.0
8-15	6	8.17
16-23	3	6.0
24-31	5	6.6
September		
1-7	1	8.0
8-15	3	8.0
16-23	2	6.0
24-31	2	8.0
October		
1-7	1	8.0
8-15	3	6.67
16-23	2	7.0
24-31	2	10.0
November		
1-7	12	8.83
8-15	5	8.4
16-23	15	6.93
24-31	13	6.92
December		
1-7	13	6.77
8-15	2	8.0
16-23	6	6.17
24-31	2	7.0
January		
1-7	4	7.5
8-15	2	6.0
16-23	2	6.0
24-31	3	6.0

Table 3.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
February		
1-7	2	6.0
8-15	2	7.0
16-23	2	7.0
24-31	1	6.0
March		
1-7	0	0
8-15	1	8.0
16-23	0	0
24-31	1	6.0

Table 4.--Dis
Gra

Time Period

January 1955

1-7

8-15

16-23

24-31

February

1-7

8-15

16-23

24-31

March

1-7

8-15

16-23

24-31

April

1-7

8-15

16-23

24-31

May

1-7

8-15

16-23

24-31

June

1-7

8-15

16-23

24-31

July

1-7

8-15

16-23

24-31

August

1-7

8-15

16-23

24-31

Table 4.--Directed Behavior in Crisis/Noncrisis Periods: Egypt to Great Britain, 1955-1957.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1955		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	1	6.0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
April		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
June		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
July		
1-7	1	10.0
8-15	0	0
16-23	0	0
24-31	1	6.0
August		
1-7	0	0
8-15	1	6.0
16-23	1	4.0
24-31	1	4.0

Table 4.--Co

Time Period

September

1-7

8-15

16-23

24-31

October

1-7

8-15

16-23

24-31

November

1-7

8-15

16-23

24-31

December

1-7

8-15

16-23

24-31

January 195

1-7

8-15

16-23

24-31

February

1-7

8-15

16-23

24-31

March

1-7

8-15

16-23

24-31

April

1-7

8-15

16-23

24-31

May

1-7

8-15

16-23

24-31

Table 4.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	0	0
8-15	1	4.0
16-23	0	0
24-31	0	0
October		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	4.0
November		
1-7	0	0
8-15	2	5.0
16-23	0	0
24-31	0	0
December		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
January 1956		
1-7	0	0
8-15	1	8.0
16-23	0	0
24-31	0	0
February		
1-7	1	8.0
8-15	0	0
16-23	0	0
24-31	0	0
March		
1-7	2	7.0
8-15	0	0
16-23	0	0
24-31	3	7.33
April		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	0	0
May		
1-7	1	8.0
8-15	1	8.0
16-23	1	6.0
24-31	2	7.0

Table 4.--

Time Per

June

1

8

16

24

July

April 19

May

June

July

August

September

October

Table 4.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
June		
1-7	2	6.0
8-15	1	8.0
16-23	3	6.67
24-31	2	6.0
July		
1-7	0	0
8-15	1	6.0
16-23	0	0
April 1957		
1-7	1	8.0
8-15	3	6.67
16-23	1	8.0
24-31	0	0
May		
1-7	0	0
8-15	7	7.14
16-23	3	7.33
24-31	2	6.0
June		
1-7	3	7.33
8-15	0	0
16-23	2	7.0
24-31	0	0
July		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
August		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
October		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Table 4.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
November		
1-7	1	6.0
8-15	0	0
16-23	0	0
24-31	0	0
December		
1-7	0	0
8-15	1	6.0
16-23	0	0
24-31	0	0

Crisis Period

July 1956		
24-31	14	7.14
August		
1-7	8	7.5
8-15	12	7.5
16-23	6	7.0
24-31	12	7.33
September		
1-7	3	6.67
8-15	7	7.71
16-23	6	7.33
24-31	2	8.0
October		
1-7	4	6.5
8-15	6	7.0
16-23	4	6.5
24-31	3	6.67
November		
1-7	19	8.21
8-15	9	8.0
16-23	11	7.27
24-31	10	8.0
December		
1-7	3	7.33
8-15	8	9.38
16-23	7	8.0
24-31	5	6.8
January		
1-7	6	7.0
8-15	4	7.0
16-23	1	8.0
24-31	1	8.0

Table 4.

Time Pe

February

1

2

March

1

2

Table 4.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
February		
1-7	2	8.0
8-15	2	6.0
16-23	3	7.33
24-31	6	7.33
March		
1-7	3	6.0
8-15	3	5.33
16-23	2	8.0
24-31	3	8.0

Table 5.--D
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Time Period

January 19

1-

8-

16-

24-

February

1-

8-

16-

24-

March

1

8

16

24

April

1

8

16

24

May

1

2

June

1

2

July

August

Table 5.--Directed Behavior in Crisis/Noncrisis Periods: Egypt to France, 1955-57.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1955		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
April		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
June		
1-7	1	3.0
8-15	0	0
16-23	0	0
24-31	0	0
July		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
August		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Table 5.--Co

Time Period

September

1-7

8-15

16-23

24-31

October

1-7

8-15

16-23

24-31

November 19

1-7

8-15

16-23

24-31

December

1-7

8-15

16-23

24-31

January 1

1-7

8-15

16-23

24-31

February

1-7

8-15

16-23

24-31

March

1-7

8-15

16-23

24-31

April

1-7

8-15

16-23

24-31

May

1-7

8-15

16-23

24-31

Table 5.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
October		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
November 1956		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	4.0
December		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	0	0
January 1956		
1-7	0	0
8-15	0	0
16-23	1	6.0
24-31	0	0
February		
1-7	0	0
8-15	1	6.0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
April		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Table 5.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
October		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
November 1956		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	4.0
December		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	0	0
January 1956		
1-7	0	0
8-15	0	0
16-23	1	6.0
24-31	0	0
February		
1-7	0	0
8-15	1	6.0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
April		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Table 5.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
June		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	1	8.0
July		
1-7	0	0
8-15	0	0
16-23	0	0
April 1957		
1-7	0	0
8-15	1	8.0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
June		
1-7	1	8.0
8-15	0	0
16-23	0	0
24-31	0	0
July		
1-7	0	0
8-15	1	3.0
16-23	0	0
24-31	0	0
August		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
October		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Table 5.--Cd

Time Period

November

1-7

8-15

16-23

24-31

December

1-7

8-15

16-23

24-31

July 1956

24-

August

1-

8-

16-

24-

September

1-

8-

16-

2-

October

1-

2-

November

December

Table 5.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
November		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
December		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Crisis Period

July 1956		
24-31	8	7.5
August		
1-7	5	7.0
8-15	4	6.5
16-23	3	7.33
24-31	5	6.4
September		
1-7	2	7.0
8-15	3	7.33
16-23	3	8.0
24-31	1	8.0
October		
1-7	1	8.0
8-15	6	6.33
16-23	3	6.67
24-31	3	8.0
November		
1-7	19	8.16
8-15	4	8.25
16-23	14	7.93
24-31	9	7.33
December		
1-7	3	8.0
8-15	2	8.0
16-23	6	6.83
24-31	2	8.0

Table 5.--C

Time Period

January

1-7

8-15

16-23

24-31

February

1-7

8-15

16-23

24-31

March

1-7

8-15

16-23

24-31

Table 5.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
January		
1-7	3	6.0
8-15	4	4.0
16-23	0	0
24-31	0	0
February		
1-7	1	8.0
8-15	0	0
16-23	0	0
24-31	1	8.0
March		
1-7	2	5.0
8-15	2	5.0
16-23	1	8.0
24-31	3	7.33

Table 6.-

Time Per

January 1

1

8

16

24

February

1

8

16

24

March

1

8

16

24

April

1

8

16

24

May

1

8

16

24

June

1

8

16

24

July

1

8

16

24

August

Table 6.--Directed Behavior in Crisis/Noncrisis Periods: France to Egypt, 1955-1957.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1955		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	8.0
April		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
June		
1-7	1	3.0
8-15	0	0
16-23	0	0
24-31	0	0
July		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
August		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Table 6.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	0	0
8-15	2	6.0
16-23	0	0
24-31	0	0
October		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	0	0
November		
1-7	0	0
8-15	1	6.0
16-23	0	0
24-31	0	0
December		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
January 1956		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	3	8.0
16-23	0	0
24-31	0	0
April		
1-7	1	8.0
8-15	0	0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	8.0

Table 6.--

Time Period

June

1-7

8-15

16-23

24-30

July

1-7

8-15

16-23

April 1957

1-7

8-15

16-23

24-30

May

1-7

8-15

16-23

24-30

June

1-7

8-15

16-23

24-30

July

1-7

8-15

16-23

24-30

August

1-7

8-15

September

1-7

8-15

October

1-7

8-15

Table 6.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
June		
1-7	1	6.0
8-15	0	0
16-23	0	0
24-31	0	0
July		
1-7	1	6.0
8-15	0	0
16-23	0	0
April 1957		
1-7	0	0
8-15	1	8.0
16-23	0	0
24-31	1	8.0
May		
1-7	0	0
8-15	4	7.0
16-23	1	6.0
24-31	0	0
June		
1-7	0	0
8-15	2	5.0
16-23	1	4.0
24-31	0	0
July		
1-7	0	0
8-15	1	4.0
16-23	0	0
24-31	0	0
August		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
October		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Table 6.--C

Time Period

November

1-7

8-15

16-23

24-30

December

1-7

8-15

16-23

24-31

July 1956

24

August

1

8

15

22

September

October

November

December

January

Table 6.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
November		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
December		
1-7	0	0
8-15	1	6.0
16-23	0	0
24-31	1	3.0

Crisis Period

July 1956		
24-31	6	7.67
August		
1-7	3	8.0
8-15	3	6.67
16-23	1	6.0
24-31	1	9.0
September		
1-7	4	8.0
8-15	4	7.0
16-23	3	6.67
24-31	2	8.0
October		
1-7	0	0
8-15	3	5.33
16-23	3	7.33
24-31	2	10.00
November		
1-7	9	9.11
8-15	2	5.0
16-23	3	6.67
24-31	5	6.60
December		
1-7	5	6.0
8-15	2	7.0
16-23	4	5.5
24-31	0	0
January		
1-7	1	6.0
8-15	0	0
16-23	0	0
24-31	2	5.0

Table 6.--C

Time Period

February

1-7

8-14

16-23

24-30

March

1-7

8-14

16-23

24-30

Table 6.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
February		
1-7	1	6.0
8-15	1	8.0
16-23	2	6.0
24-31	1	8.0
March		
1-7	0	0
8-15	1	6.0
16-23	0	0
24-31	1	8.0

Table 7.--

Time Period

January 1954

1-7

8-14

16-22

24-30

February

1-7

8-14

16-22

24-30

March

1-7

8-14

16-22

24-30

April

1-7

8-14

16-22

24-30

May

1-7

8-14

16-22

24-30

June

1-7

8-14

16-22

24-30

July

1-7

8-14

16-22

24-30

August

Table 7.--Directed Behavior in Crisis/Noncrisis Periods: Egypt to Israel, 1955-1957.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1955		
1-7	1	6.5
8-15	0	0
16-23	0	0
24-31	1	8.0
February		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	0	0
March		
1-7	1	8.0
8-15	0	0
16-23	2	7.0
24-31	1	8.0
April		
1-7	3	9.0
8-15	0	0
16-23	1	8.0
24-31	1	11.00
May		
1-7	0	0
8-15	0	0
16-23	1	11.0
24-31	1	11.0
June		
1-7	2	7.0
8-15	3	6.0
16-23	1	8.0
24-31	2	5.0
July		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
August		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	4	9.0

Table 7.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	2	7.5
8-15	1	8.0
16-23	1	4.0
April 1957		
1-7	4	7.5
8-15	6	7.67
16-23	1	8.0
24-31	1	8.0
May		
1-7	1	8.0
8-15	0	0
16-23	2	7.0
24-31	1	8.0
June		
1-7	2	7.5
8-15	1	8.0
16-23	1	8.0
24-31	0	0
July		
1-7	1	8.0
8-15	1	6.0
16-23	3	6.67
24-31	0	0
August		
1-7	2	6.0
8-15	1	4.0
16-23	3	5.33
24-31	0	0
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	8.0
October		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	1	6.0
November		
1-7	1	8.0
8-15	0	0
16-23	1	8.0
24-31	0	0

Table 7.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
December		
1-7	1	6.0
8-15	0	0
16-23	0	0
24-31	0	0
Crisis Period		
September		
24-31	0	0
October		
1-7	2	6.0
8-15	0	0
16-23	1	11.0
24-31	3	9.67
November		
1-7	3	8.33
8-15	1	8.0
16-23	1	8.0
24-31	0	0
December		
1-7	0	0
8-15	1	8.0
16-23	0	0
24-31	0	0
January 1956		
1-7	2	11.0
8-15	2	8.5
16-23	0	0
24-31	1	6.0
February		
1-7	2	9.5
8-15	2	11.0
16-23	1	6.0
24-31	4	7.75
March		
1-7	3	10.0
8-15	2	8.0
16-23	2	8.0
24-31	3	9.0
April		
1-7	5	9.4
8-15	7	9.14
16-23	3	6.67
24-31	1	11.0

Table 7.--Continued.

Time Period		Number of Acts/Week	Mean Intensity of Acts/Week
May			
	1-7	3	7.67
	8-15	7	7.14
	16-23	3	7.33
	24-31	1	7.4
June			
	1-7	4	8.0
	8-15	0	0
	16-23	2	8.0
	24-31	2	8.0
July			
	1-7	1	8.0
	8-15	2	8.0
	16-23	3	6.67
	24-31	4	8.25
August			
	1-7	2	8.5
	8-15	2	9.0
	16-23	1	11.0
	24-31	3	10.0
September			
	1-7	3	6.0
	8-15	4	7.25
	16-23	1	8.0
	24-31	1	8.0
October			
	1-7	3	6.0
	8-15	4	7.25
	16-23	1	8.0
	24-31	1	8.0
November			
	1-7	14	7.79
	8-15	2	7.0
	16-23	9	7.56
	24-31	8	7.0
December			
	1-7	1	6.0
	8-15	4	7.5
	16-23	2	7.0
	24-31	3	6.67
January			
	1-7	1	4.0
	8-15	3	8.0
	16-23	3	6.0
	24-31	4	5.5

Table 7.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
February		
1-7	1	8.0
8-15	2	8.0
16-23	5	7.6
24-31	5	7.0
March		
1-7	5	6.8
8-15	5	6.8
16-23	6	7.5
24-31	5	7.2

Table 8.--Directed Behavior in Crisis/Noncrisis Periods: Israel to Egypt, 1955-1957.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1955		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	1	6.0
24-31	3	9.0
March		
1-7	1	8.0
8-15	0	0
16-23	2	8.0
24-31	2	7.0
April		
1-7	2	8.0
8-15	1	8.0
16-23	2	8.0
24-31	1	11.0
May		
1-7	0	0
8-15	0	0
16-23	3	9.0
24-31	3	11.0
June		
1-7	1	8.0
8-15	1	6.0
16-23	1	6.0
24-31	2	6.0
July		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
August		
1-7	0	0
8-15	0	0
16-23	2	9.5
24-31	4	9.5

Table 8.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	4	6.75
8-15	1	6.0
16-23	1	8.0
April 1957		
1-7	2	6.0
8-15	3	7.33
16-23	1	4.0
24-31	2	8.0
May		
1-7	1	8.0
8-15	3	6.67
16-23	2	6.0
24-31	2	8.0
June		
1-7	3	10.0
8-15	2	8.5
16-23	3	6.67
24-31	2	8.5
July		
1-7	1	8.0
8-15	1	8.0
16-23	0	0
24-31	1	8.0
August		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	0	0
September		
1-7	0	0
8-15	1	11.0
16-23	0	0
24-31	0	0
October		
1-7	1	8.0
8-15	2	7.0
16-23	3	8.0
24-31	1	6.0
November		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	6.0

Table 8.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
December		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
Crisis Period		
September		
24-31	1	8.0
October		
1-7	1	4.0
8-15	2	7.0
16-23	0	0
24-31	6	7.83
November		
1-7	5	7.40
8-15	3	6.33
16-23	1	8.0
24-31	0	0
December		
1-7	0	0
8-15	1	8.0
16-23	0	0
24-31	0	0
January 1956		
1-7	2	8.5
8-15	3	7.33
16-23	2	6.0
24-31	0	0
February		
1-7	2	11.0
8-15	2	8.5
16-23	2	11.0
24-31	2	9.5
March		
1-7	6	8.67
8-15	3	8.33
16-23	1	11.0
24-31	4	9.5
April		
1-7	7	9.29
8-15	15	7.73
16-23	5	7.40
24-31	2	9.5

Table 8.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
May		
1-7	2	8.0
8-15	5	7.40
16-23	4	5.5
24-31	2	5.5
June		
1-7	2	7.0
8-15	3	8.67
16-23	4	8.25
24-31	2	8.0
July		
1-7	2	7.0
8-15	1	8.00
16-23	5	7.80
24-31	4	9.5
August		
1-7	1	8.0
8-15	2	7.0
16-23	3	9.0
24-31	4	9.0
September		
1-7	3	7.33
8-15	2	9.5
16-23	3	8.0
24-31	0	0
October		
1-7	0	0
8-15	3	9.0
16-23	3	9.0
24-31	11	9.36
November		
1-7	30	9.0
8-15	9	6.0
16-23	18	6.22
24-31	13	7.46
December		
1-7	7	6.0
8-15	5	6.8
16-23	11	6.73
24-31	8	7.0
January 1957		
1-7	1	8.0
8-15	6	6.0
16-23	10	5.6
24-31	20	6.4

Table 8.--Continued

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
February		
1-7	6	7.16
8-15	9	6.89
16-23	11	6.73
24-31	4	7.0
March		
1-7	11	6.18
8-15	11	6.73
16-23	5	8.0
24-31	1	8.0

Table 9.--Total and Mean Number of Events in Periods of Crisis and Noncrisis for Dyads of Egypt, Israel, Great Britain, and France, 1955-1957.

<u>Egypt to Great Britain</u>		<u>Great Britain to Egypt</u>	
Crisis	195	Crisis	129
(N = 33 weeks)	(4.49)*	(N = 33 weeks)	(3.91)
Noncrisis	56	Noncrisis	57
(N = 111 weeks)	(.50)	(N = 111 weeks)	(.51)
<u>Egypt to France</u>		<u>France to Egypt</u>	
Crisis	120	Crisis	76
(N = 33 weeks)	(3.64)	(N = 33 weeks)	(2.30)
Noncrisis	10	Noncrisis	26
(N = 111 weeks)	(.09)	(N = 111 weeks)	(.23)
<u>Egypt to Israel</u>		<u>Israel to Egypt</u>	
Crisis	199	Crisis	328
(N = 73 weeks)	(2.73)	(N = 73 weeks)	(4.49)
Noncrisis	65	Noncrisis	77
(N = 71 weeks)	(.92)	(N = 71 weeks)	(1.08)

*Indicates the mean number of events per week.

Table 10.--Mean Intensity of Events* in Periods of Crisis and Noncrisis for Dyads of Egypt, Israel, Great Britain, and France 1955-1957.

<u>Egypt to Great Britain</u>		<u>Great Britain to Egypt</u>	
Crisis (N = 33 weeks)	7.34	Crisis (N = 33 weeks)	6.75
Noncrisis (N = 111 weeks)	1.97	Noncrisis (N = 111 weeks)	1.86
<u>Egypt to France</u>		<u>France to Egypt</u>	
Crisis (N = 33 weeks)	6.30	Crisis (N = 111 weeks)	5.90
Noncrisis (N = 111 Weeks)	.56	Noncrisis (N = 111 Weeks)	1.06
<u>Egypt to Israel</u>		<u>Israel to Egypt</u>	
Crisis (N = 73 weeks)	7.00	Crisis (N = 73 weeks)	6.90
Noncrisis (N = 71 weeks)	4.28	Noncrisis (N = 71 weeks)	4.57

*All events were scaled with the Thirteen Point Scale. For a discussion of the scale and scaling procedures, see Chapter IV.

In sum, on this dimension, the number or frequency of events in crisis periods are markedly different from the noncrisis periods for all the dyads.

An examination of the crisis/noncrisis periods for mean intensity of events shows a similar result. For the noncrisis period, the mean intensity of Egyptian behaviors toward Great Britain was 1.97 on the Thirteen Point scale while 7.34 for the crisis period. For the same dyad with British-initiated behaviors, the noncrisis period resulted in a 1.86 mean intensity level while the crisis period produced a 6.75 level. The Egypt to France and the France to Egypt dyads also show differential intensities for the crisis and noncrisis periods. For the former dyad, the mean intensity is a mere .56 for the noncrisis time span and 6.30 for the crisis one. For the latter dyad, the mean intensities for the noncrisis and crisis periods are 1.06 and 5.90, respectively. As one can see, the intensity of events for these dyads in the crisis time frame average from three times as hostile (e.g., Britain to Egypt) to as much as eleven times as hostile (e.g., Egypt to France) when compared with the noncrisis time frame. Thus, on this intensity dimension as well, differential results for the two periods occur. See Table 10.

It should be immediately pointed out, of course, that the mean intensity across the periods is dependent upon the occurrence of behavior (events) between the parties. That is, the lack of behavior (and therefore the lack of intensity of behavior) severely deflated the mean intensity level. But, of course, this is the very point. No behavior reflecting no intensity tells us something about the

relations between the nations. Moreover, the converse likewise is true, and it also says something about the relations between the nations.

To verify statistically the extreme differences for the crisis and noncrisis periods, a difference of means test (a t-test) was performed on the mean frequency and mean intensity of crisis versus noncrisis periods. The results are highly significant and in line with our expectations. See Tables 12 and 13. In sum, it is safe to conclude that the kind of behavior in the crisis versus the noncrisis period is markedly different for the French-Egyptian, Egyptian-French, British-Egyptian, and Egyptian-British dyads. Also, this change in behavior is consistent with the change in perceptions on the part of the decisionmakers of these nations.

For the Egypt-Israel dyad, the examination of different periods was necessary. Owing to the fact that, at the perceptual level, the decisionmakers of Israel did not perceive the nationalization as severely as did the other nations involved, but rather saw the Egyptian arms deal as critical, I examined whether the time span from September 1955 through March 1957 was more likely the crisis period and whether the other months from January 1955 through December 1957 were more likely the noncrisis period. A visual inspection of the data in terms of the frequency and intensity of events supports this classification. See Tables 7 and 8.

As a further check on this division of the crisis/noncrisis periods for the Egypt-Israel dyad, I compared the mean number of events and the mean intensity of events with the nationalization as the beginning of the crisis period (July 1956 to March 1957) and the rest of the months as the noncrisis period. The results support the

Table 11.--Comparisons of Alternative Crisis/Noncrisis Divisions for the Egypt-Israel Dyad, 1955-1957.

	Mean No. of Events By Week	Ratio of Crisis/ Noncrisis	Ratio of Crisis/ Noncrisis from Tables 9&10
<u>Egypt to Israel</u>			
Crisis (N = 33 weeks) (July 1956-March 1957)	3.58	2.71	2.96
Noncrisis (N = 111 weeks) (Jan 1955-July 1956 and April-December 1957)	1.32		
<u>Israel to Egypt</u>			
Crisis (N = 33 weeks)	6.21	3.34	4.16
Noncrisis (N = 111 weeks)	1.86		
	<u>Mean Intensity of Events By Week</u>		
<u>Egypt to Israel</u>			
Crisis (N = 33 weeks)	7.40	1.44	1.63
Noncrisis (N = 111 weeks)	5.14		
<u>Israel to Egypt</u>			
Crisis (N = 33 weeks)	7.05	1.31	1.50
Noncrisis (N = 111 weeks)	5.37		

Table 12.--T-test Results of Crisis vs. Noncrisis Period Adjusted for Unequal Sample Sizes and Heterogeneous Variances: Number of Acts/Week, 1955-57^a

Significance Level				
<u>Great Britain to Egypt</u>				
Crisis Period N=33	$s_1^2 = 14.87$		$t = 4.98$	
Noncrisis Period N=111	$s_2^2 = 1.69$	$F = 8.79$	$t' = 2.75$	.01
<u>Egypt to Great Britain</u>				
Crisis Period N=33	$s_1^2 = 15.69$		$t = 7.76$	
Noncrisis Period N=111	$s_2^2 = 1.03$	$F = 15.30$	$t' = 2.75$	.01
<u>France to Egypt</u>				
Crisis Period N=33	$s_1^2 = 3.85$		$t = 5.97$	
Noncrisis Period N=111	$s_2^2 = .378$	$F = 10.19$	$t' = 2.75$	.01
<u>Egypt to France</u>				
Crisis Period N=33	$s_1^2 = 12.66$		$t = 5.72$	
Noncrisis Period N=111	$s_2^2 = .082$	$F = 154.37$	$t' = 2.75$	.01
<u>Israel to Egypt</u>				
Crisis Period N=73 ^b	$s_1^2 = 23.59$		$t = 5.78$	
Noncrisis Period N=71 ^b	$s_2^2 = 1.29$	$F = 18.31$	$t' = 3.23$	.01
<u>Egypt to Israel</u>				
Crisis Period N=73 ^b	$s_1^2 = 5.19$		$t = 6.07$	
Noncrisis Period N=71 ^b	$s_2^2 = 1.29$	$F = 4.02$	$t' = 2.99$	.01

^aThe test for heterogeneous variances was carried out by an F-test of the variances of each sample. They were found in all cases not to be estimates of the same population variance. Therefore, given unequal variances and unequal samples, instead of using a single estimate s^2 to find the standard error of the difference between the two means, separate estimates, s_1^2 and s_2^2 are used, according to the following formula:

$$s_{x1-x2} = \sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}} \quad \text{A t-test was employed with this estimate.}$$

To determine whether the resulting t value is significant under these conditions, one must first find the critical values of t_1 and t_2 . In our case, the values are $t_1 = 2.75$ for 32 d.f. and $t_2 = 2.62$ for 110 d.f. at the .01 level of significance. One then computes t' :

$$t' = \frac{t_1 \frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}$$

The value of t' is the critical value in terms of which the t will be evaluated. If the t exceeds t' , the null hypothesis regarding no differences between samples will be rejected. Thus one can conclude that the two samples have significant differences in variances and in means. For a complete discussion of this test, see Allen L. Edwards, Experimental Design in Psychological Research (New York: Holt, Rinehart and Winston, Inc., 1968), pp. 101-103.

^bThe critical values for $t_1(N=73)$ and $t_2(N=72)$ are 3.23 and 3.23 (approximately) for each. This value is at the .01 level of significance in the calculation of the appropriate statistic.

Table 13.--T-test Results of Crisis vs. Noncrisis Period Adjusted for Unequal Sample Sizes and Heterogeneous Variances: Mean Intensity of Acts/Week, 1955-57.^a

				Sign. Level
<u>Great Britain to Egypt</u>				
<u>Crisis Period</u>				
N=33	$s_1^2 = 3.89$		$t = -11.13$	
Noncrisis Period		$F = 2.14$		
N=111	$s_2^2 = 8.32$		$t' = 2.70$	.01
<u>Egypt to Great Britain</u>				
<u>Crisis Period</u>				
N=33	$s_1^2 = .60$		$t = -8.54$	
Noncrisis Period		$F = 70.06$		
N=111	$s_2^2 = 41.86$		$t' = 2.63$	.01
<u>Egypt to France</u>				
<u>Crisis Period</u>				
N=33	$s_1^2 = 6.47$		$t = 12.03$	
Noncrisis Period		$F = 1.83$		
N=111	$s_2^2 = 3.53$		$t' = 2.73$	.01
<u>France to Egypt^b</u>				
<u>Crisis Period</u>				
N=33	$s_1^2 = 7.55$			
Noncrisis Period			$t = 9.62$	.01
N=111	$s_2^2 = 5.97$			
<u>Egypt to Israel</u>				
<u>Crisis Period</u>				
N=73	$s_1^2 = 7.79$		$t = 4.81$	
Noncrisis Period		$F = 1.92$		
N=71	$s_2^2 = 14.92$		$t' = 3.23$	.01
<u>Israel to Egypt</u>				
<u>Crisis Period</u>				
N=73	$s_1^2 = 7.54$		$t = -4.08$	
Noncrisis Period		$F = 2.09$		
N=71	$s_2^2 = 15.75$		$t' = 3.23$	.01

^aSee note under Table 12.

^bFor the France to Egypt dyad, the variances were not significantly different from one another, but the means were significantly different as reported by the appropriate t-test. See William C. Hays, Statistics for Psychologists (New York: Holt, Rinehart and Winston, 1963), pp. 319-321.

earlier division of the crisis/noncrisis periods. That is, the gap (i.e., the larger ratio) between the crisis and noncrisis events (in terms of mean number and mean intensity) is higher with the arms deal as the beginning of the crisis phase than with the nationalization as the beginning. This fact can be verified by comparing the ratios between crisis/noncrisis using each beginning point separately. The results are portrayed in Table 11. Thus, this finding provides considerably more confidence for using the original crisis/noncrisis demarcation.

Examining the summarized results in Tables 9 and 10 for the Egypt-Israel dyad (with the arms deal as the beginning of the crisis period), the disparity between the crisis and noncrisis periods are evident. In the noncrisis period, a total of 142 events occurred with 77 initiated by Israel and 65 initiated by Egypt. In the crisis period, on the other hand, a total of 527 events occurred with 328 by Israel and 199 by Egypt. Similarly, with mean intensity in crisis/noncrisis periods, differences (while not as distinct as for the other dyads) do emerge. The Egypt to Israel dyad produced a mean intensity of 7.00 for the crisis period contrasted with a 4.28 mean level for the noncrisis period. For the Israeli-directed behavior to Egypt, the crisis mean was 6.90 compared with a 4.57 level for the noncrisis period. In other words, on the "average," the intensity of events was at least 1.5 times as hostile in the crisis as in the noncrisis periods for both Egyptian-initiated or Israeli-initiated actions.

As a means of assessing the extent of the differences statistically, again a difference of means (a t-test) for the number of events and intensity of events was performed for these dyads. The

results are also portrayed in Tables 12 and 13. Thus, for Egypt and Israel, according to our results, the international crisis situation really set in with the arms deal and lasted through the nationalization of the Canal, the Sinai War, and the eventual removal of all foreign troops. In short, the international crisis began in September 1955 and lasted through March 1957.

The Six Day War Crisis

The most recent high point of the conflict between the Arabs and the Israelis was the Six Day War from June 5, 1967 to June 11, 1967. This war also produced a crisis situation between these parties. What I am interested in for this study is delimiting the range of the crisis period of the participants for further analysis. While scholars have differed considerably on the beginning and end of this international crisis situation, I shall attempt to delimit the crisis by applying the behavioral and perceptual criteria as in the Suez situation.

Background to the Six Day War Crisis

In many ways, the Six Day War resulted from conditions that were existent at the time of the Sinai War of 1956 after the Suez situation set in: blockade of Israeli vessels in the Gulf of Aqaba; increased terrorism by the fedayeen; and increased military capabilities by the Arabs.²³ Unlike the Suez situation, however, the beginning or end of the crisis situation that accompanied the war cannot be easily traced to a single event or series of events, like the nationalization of the Canal in July 1956. Rather, the crisis seemingly emerged from a series of interactions between various Arab states and Israel over a

period of time. For example, most Middle East experts agree that the border terrorist problems between Syria and Israel is a major linkage point to the war and an apt point of departure. Syrian-Israeli relations were deteriorating from early 1966 owing to the change in governments in Syria and the increased terrorist raids. In addition, the situation was exacerbated by the Israeli attack on the Jordanian village of es-Samu in November 1966.²⁴ In turn, of course, this action seemingly increased Jordanian concern about Israel and brought them into the conflict situation.

Regarding the entrance of Egypt into the crisis situation, researchers express much disagreement. Some argue that the April 1967 encounter between the Syrian and the Israelis in the Golon Heights and the continued reports of Israeli military buildup on the Syrian border moved the Egyptians into involvement. Other scholars, of course, point to Nasser's demand for the withdrawal of UN forces from Egyptian territory around the Gulf of Aqaba and/or the announcement of the blockade of the Straits of Tiran from Israeli shipping or non-Israeli shipping carrying strategic goods to Israel.²⁵

Beyond the citing of these various actions as the departure point, little debate occurs over whether a crisis situation existed after these actions. All agree that it did. For both the Arabs and the Israelis began to undertake increasing hostile actions toward one another. For example, Nasser moved to solidify Arab unity by uniting all Arab forces under a single commander-in-chief. Also plans were made for war with Israel or at least for an attack from Israel. The Israeli decisionmakers, on the other hand, also moved toward more and more a military solution to the problem in their cabinet debates and

cabinet appointees. In particular, the appointment of Moshe Dayan as Defense Minister finalized the direction of Israeli intentions toward the Arabs. In fact, his military attack plan was formally accepted by the Israeli cabinet on June 2, 1967. The plan was implemented on June 5, 1967 with the Arab airfields and the fighting between the parties began on all fronts. While the fighting seemingly ended by June 11, did this action necessarily end the crisis situation between the parties (i.e., did the violent behavior between the parties cease?), or did, the situation continue for a considerable length of time through the rest of 1967?

The task, therefore, for this part of the study shall be to examine these suggested beginning and end points of the crisis situation for each dyad according to the perceptual and behavioral criteria outlined earlier. If one can detect convergence on particular period through the use of these two criteria, one will be better able to state that this was the crisis period for the dyads and have greater confidence in the subsequent analysis of this period with the crisis models. In short, as with the Suez situation, the reliance on such systematic evidence will be more convincing than relying solely on the examination of an ad hoc period identified as the Six Day War Crisis.

The Perceptual and Behavioral Criteria of the Six Day War Crisis

The Perceptual Dimension.--The perceptual criterion will be examined by relying upon the statements or speeches of the key decisionmakers of the dyads under consideration in an attempt to assess their sense of threat, sense of surprise, and sense of urgency.

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The basic source will be the Foreign Broadcast Information Service Daily Reports compiled by the United States Government. This source is a day-by-day monitoring of radio and newspaper report of activities throughout the world. Moreover, it is particularly sensitive to statements by governmental leaders for all nations, and it has a separate section that deals exclusively with the Middle East. In this sense, it should serve our purpose well for trying to get at the perceptual elements of international crisis.

An additional problem, however, needs to be recognized and dealt with in examining the perceptual elements of international crisis. The Middle East is a region characterized by constant high level of negative affect and barrages of hostile propaganda between the Arabs and the Israelis. Therefore, it was decided to examine the Daily Reports only for statements by recognized leaders or identified spokesmen of the governments under investigation. In addition, of course, the statements must deal with reflections of threats, surprise, or time constraints on decisionmaking. Moreover, the examination of the Daily Reports began with the September 1, 1966 because it was thought this departure point would cover any of the beginning points of the crisis as suggested by previous analysts.

Syrian-Israeli View

For the Syrians and the Israelis, the es-Samu raid of November 1966 is often earmarked as the onset of the crisis situation that eventually led to the Six Day War. If one looks at the statements and speeches of the leaders, support certainly does exist for this position. It seems, however, that at the perceptual level the

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sense of immediate threat goes back a bit earlier than the es-Samu incident. The Israeli sense of threat from the Syrians goes back to late September and early October 1966 while the Syrians' sense of immediate threat from Israel set in during early October. Moreover, this perceptual hostility is primarily related to continuing terrorist attacks and border intrusions by both parties.

The first statement of Israeli threat occurs as early as September 18, 1966. At that time, Levi Eshkol, Prime Minister and Defense Minister of Israel, announced that there was evidence that the Syrian Government was adopting and training sabotage squads for operation against Israel.²⁶ More importantly, in early October Eshkol emphasized this threat very explicitly and pointed to the necessity for action:

Acts of murder and sabotage will receive an appropriate reaction. The manner and means of reply will be determined by us. Not long ago Syria recognized our ability to properly defend the lives of our citizens and our sovereign rights. . . . In the meantime we sincerely advise Syria to carefully consider its actions and to turn from its ways.²⁷

This statement identifies Syria as the nation severely threatening Israel. Throughout this particular period, in fact, no reference is made by the Israeli leaders to other Arab nations; rather all their attention seemed focused on Syria. This statement also reflects the sense of urgency of the matter at hand and suggests that action will be taken.

Furthermore, other evidence supports this contention. The Israeli government immediately moved to stop the reduction in the time of military service by the citizens previously enacted. The decision-makers also reportedly ordered additional forces moved up to the

Syrian border. In addition, Prime Minister Eshkol summoned the ambassadors of the United States, Soviet Union, France, and Great Britain to convey to them the seriousness of the situation at hand.²⁸

Syria, on the other hand, denied the Israeli accusations that they were training the fedayeen and instead stated that the charges were a "curtain to hide the real intention, which is to overthrow the present regime in Syria" ²⁹ After an Israeli attack on border villages in early October, moreover, the Syrian's sense of threat increased precipitously. The Chief of Staff of the Syrian General Staff, Major General Ahmad Suwaydani expressed the fear felt by the Syrians:

We are prepared to defend our people and dignity. . . . On the occasion of these threats, we shall recruit and arm. . . . Imperialism and Zionism shall see that in this region they confront a defensive line in all parts of the Arab homeland. . . .³⁰

In addition, the Syrian noted with alarm the reported Israeli border buildup. Again, they claimed that such action reflected Israeli intentions to their territory.

Syria took other actions against the Israeli threat in addition to the recruitment of more men. An official Syrian government announced that the Syrian Arab Republic had informed all diplomatic missions in Damascus of the suspected and overt Israeli attempts to use the activities of the Palestinian fedayeen as an excuse for organizing large-scale aggression against Syria. The Syrian note also drew upon an analogy to the situation back in 1956. At that time, the Syrians said, Israel protested the actions of the Arab fedayeen in the Gaza sector in order to justify its planned aggression against Egypt

and its role in the Suez campaign. Similarly now, the note went on, the activities of the Palestinian forces are used "as an excuse for the aggression it [Israel] is now planning against Syria."³¹

In succeeding weeks, the verbal accusation increased and again reflected the increased perceptual tensions on the part of the Israelis and Syrians toward one another. Moreover, when the es-Samu incident finally does occur in November 1966, it gives considerable credence to their mutual view of the other.

In sum, the perceptual elements do seem to be met about early October 1966, and continue to appear within each nation up to and beyond the outbreak of the Six Day War. Thus, on this dimension, it is safe to say that the crisis criteria is met; however, I shall also examine the interactions patterns to support the contention that the behavior between the nations changed in frequency and/or intensity from this point.

Jordanian-Israeli View

The beginning of the international crisis situation between Jordan and Israel in 1966-1967 is also linked to the Israeli raid on the Jordanian village of es-Samu on November 13, 1966. The reasons for the Israeli attack on this particular village vary. They range from the Israeli position that the terrorists were using this particular village as a base of operations, to the charge that the raids were a warning to Syria indirectly of the possible consequences of continuing their own raids into Israel, or, finally, that the raids occurred in response to the recently signed UAR-Syrian defense pact.³² Whatever

the precise reason, the response of the Jordanian decisionmakers was quick and intense.

King Hussein immediately responded in the following way:

We know they will do everything to destroy us because we have been and will continue to be an obstacle in their way and in the way of attempts to liquidate the Palestine question and to deprive us as completely of any right we have in our homeland.³³

Also,

There is a feeling in Jordan that Israel is seeking war and expansion. If this is what Israel wants, we are capable of dealing with it. We are prepared to face Israel anywhere . . .³⁴

Prime Minister Wasfi et-Talli also identifies the foreboding situation through an analogy to the 1956 Suez Crisis. Et-Talli's statement expresses the sense of threat from Israel and identifies how the attack should not have surprised them through the same analogy:

Brothers, I want to remind you of what occurred in 1956. Brothers, it is necessary for us to evaluate the enemy's mentality as it really is. Underestimating the enemy does us no service. I wish to remind you of 1956. All indications showed that the attack [from Israel] was directed at Jordan. At the last moment the offensive was unleashed in Sinai. The reasons: The Egyptian Army had received new arms, as we are receiving new arms now. The Egyptian Army was reorganizing itself and growing stronger every day. At that time the Egyptian Army was becoming stronger daily. Here we were at a standstill, owing to our material and armament condition. The enemy calculated.³⁵

Put another way, et-Talli is saying that Jordan was attacked at es-Samu because it was rearming and the enemy saw this action. More importantly, because of the calculating on the part of Israel, Jordan must not be surprised by such action and must now see Israel as a constant source of threat. The Prime Minister goes on to say that while the attack surprised them they could still not response

adequately because of insufficient air cover from other Arab states. However, in the future, he vowed, Jordan would be prepared.

A number of measures are taken immediately by Jordan to prepare for any eventuality. Such action demonstrate the urgency of the situation. First of all, King Hussein ordered mandatory recruitment of all citizens:

In view of the fact that weapons are available and the situation is delicate, therefore, it is mandatory that you and the officials [to et-Talli] make all necessary arrangements to recruit immediately every person fit for army service. Anyone who wants to serve his country thus need only to report to the competent authorities to join the army . . .³⁶

In line with this order, the Jordanian Government enacted a compulsory national service act which required all able men between 18 and 40 to serve in the army. Jordan thus immediately increased the size of its army. In addition, the border areas of Jordan were strengthened.

At the international level, Jordan took the issue of the attack to the United Nations. It requested consultation with the Unified Arab Command in Cairo to coordinate future strategies. Finally, as well, King Hussein accepted the offer from King Faisal of Saudi Arabia to place 20,000 troops at his disposal.

In general, Jordan prepared itself domestically for a confrontation and in so doing exhibited the domestic crisis conditions. In this sense, then, the evidence does support the contention that the crisis set in at the perceptual level with the es-Samu incident. However, looking ahead just a bit, the behavioral dimension does not support this incident as the one that moved the nations eventually to the Six Day War. While Jordan did proceed to act against Israel briefly in late November and early December 1966, these actions did

not last long beyond this point. Thus, while it would appear that the es-Samu raid brought a brief crisis, it is not the one directly linked to the Six Day War. Rather, it seems that Jordan was brought into the Six Day War Crisis much later and at about the same time as Egypt in early May 1967. This view will be discussed in more detail when examining the behavioral dimension and will also be incorporated into the examination of the perceptual view of Egypt presently.

The Egyptian View

While the United Arab Republic (Egypt) did not have compatible goals with the Israelis, it stayed remarkably above direct involvement in the activities that were going on between the other Arab states and Israel in late 1966 and early 1967. As indicated earlier, some argue that Egypt was brought into the crisis situation in early April 1967 after the Israeli-Syrian exchanges in the Golon Heights and the Israeli shooting down of Syrian planes on the outskirts of Damascus. Others, of course, argue that the requests for removal of UN forces from the Sinai and thus the direct confrontation between the parties was the incident that brought Egypt into a crisis situation with Israel. Still others state that the blockade of the Gulf of Aqaba was the incident that brought about the crisis situation between Israel and the UAR.

If one examines the statements by the Egyptian decisionmakers, little support exists for the April beginning. In fact, after the incidents over Damascus and in the Golon Heights, very little in the way of UAR concern is reported. The only hint of any concern among the Egyptian elite is a statement on April 11 which said that the National Assembly's Arab Affairs and Foreign Relations Committee would

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discuss three important questions including the recent Israeli attack on Syria.³⁷ Also Egypt was officially informed by the Syrian Government about the details of the early April incidents through separate meetings between military and diplomatic personnel of both nations. Other than these meetings, however, Egypt did not seem alarmed and did not seem to move toward any urgent decisions. Thus, while it would appear that the April activities focused UAR attention on the Syrian-Israeli struggle, the UAR did not demonstrate any particular urgency about the situation. In this sense, then, the crisis conditions are not met at the April juncture.

Instead, it is really not until early May that Egypt begins to indicate the threatening situation between Israel and itself and begins to exhibit the domestic conditions of international crisis. The threat occurs again, however, as a result of incidents between Syria and Israel. In particular, Israel's Levi Eshkol announced on May 12 that "in view of the fourteen incidents of the past months alone, we have to adopt measures no less drastic than those of April 7."³⁸ Eshkol stated that he intended "to make Israeli defense forces powerful enough to deter aggression, to repel it, and to strike a decisive blow within the enemy territory."³⁹ Finally, too, the reports of massive Israeli troop concentrations enhanced and reinforced any fear over imminent attack against Syria.

Such threats against Syria, a country to which Egypt was directly tied by a defense pact as well as cultural and regional loyalties, did produce a sense of threat in Egypt. Domestically, the UAR began to take a series of steps to indicate that actions against Israel were likely and that a crisis situation was present. First of

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all, a state of emergency was declared for the UAR armed forces in view of the deteriorating Syrian-Israeli situation. Secondly, various emergency meetings were held by Field Marshall Amir and General Fawzi with the UAR air force and army command to plan strategy. Thirdly, Nasser notified other Arab nations and other nations friendly to Egypt, particularly the Soviet Union, India, and Yugoslavia, about the situation between Egypt, Syria, and Israel.⁴⁰ Nasser also had a number of reported meetings with his advisors and with the Syrian Deputy Premier and Foreign Minister Dr. Ibrahim Makhus to discuss the border situation. Similarly, UAR Foreign Minister Riyad held additional meetings with the Soviet, Syrian, and Iraqi ambassadors in Cairo. In short, the number and the frequency of meetings with both domestic advisors and foreign ambassadors strongly suggest that the situation is threatening and demanded imminent decisionmaking.

Finally, and most dramatically, however, was the action of UAR Armed Forces Chief of Staff General Fawzi. Fawzi wrote the following letter to the UN Emergency Force Commander Major General Rikhye:

I wish to inform you that I have issued instructions to all UAR armed forces to be ready to act against Israel immediately after any aggression on its part against any Arab state. In implementation of these instructions, our forces have gathered in Sinai on our eastern borders. To secure the safety of the UN Emergency Force stationed along the armistice lines on our borders, I request you to issue your orders for the immediate withdrawal of these forces. I have issued the relevant instructions in this regard to the commander of the eastern military district, who advised me about the implementation of my request.⁴¹

This request was eventually granted on May 18, after the Egyptians had used the proper channels of communications to request such action. In addition, this action also placed the UAR and Israel in direct confrontation with one another and only heightened the tensions between

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the two nations. Moreover, all these various actions that the UAR adopted were done in a very short time span--all were accomplished by May 18.

On the perceptual level, then, the crisis situation for the Egyptian decisionmakers set in about the middle of May for Egypt toward Israel. The later announcement of the blockade of the Gulf of Aqaba (May 23) likewise was only one of many actions that Egypt would adopt concerning the threatening situation and only increased the existing tensions between the parties. It, however, seems not the starting point of the crisis for Egypt, but only a signal of its intention to do something about a crisis situation that had set in earlier.

Similarly, the Egyptian request for the removal of United Nations Emergency Forces moved Israel to perceive a crisis situation with Egypt as well as with Syria. Almost immediately, the Israeli Cabinet met to discuss the security situation and stated that contacts with various governments had taken place over the Egyptian action. Prime Minister Eshkol asked for a restoration of the border to one of the status quo and said that the removal of UN forces, and their replacement with Egyptian forces, increased tension in the area.⁴² He ordered that reserve forces be called up to deal with the situation and to prepare for any eventuality that may arise from Egypt.

Finally, Jordan was also brought back into a crisis situation with Israel over the Syrian-Israeli confrontation and the emerging Egyptian-Israeli one. While Jordan had altered its forces after the April encounters between Syria and Israel, it had taken little other domestic actions to indicate a crisis situation was present. In fact, no other indication of the seriousness of the situation is hinted until

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May 17 when the Jordanian Royal Court held an important meeting to discuss the situation with Israel and its Arab neighbors. As a result of this meeting, Premier Sad Jumah announced that Jordan was following the situation and "that Jordan will stand alongside its Arab sisters against the common danger in accordance with the dictates of national unity."⁴³ Jordan also stated that it supported the Egyptian request for the withdrawal of UN forces and would favor the closure of the Aqaba Gulf to Israel by the Egyptian forces that moved into Sinai. Moreover, consultation increased with Egypt within a short time span and eventually a common defense pact was signed. Thus, at the perceptual level for Jordan, as well, the crisis condition set in during early May.

In sum, what started as a crisis situation escalating between Syria and Israel developed by mid-May 1967 into a crisis between Syria, Egypt, and Jordan against their common enemy, Israel. Moreover, considerable evidence at the decisionmakers level support the various points of the onset of crisis for each dyad. However, whether the perceptual existence of the crisis conditions also resulted in the behavioral manifestations of changed interaction patterns is a separate question to which I shall now turn.

The Behavioral Dimension.--As with Suez, the second criterion of international crisis, the behavioral dimension, is operationalized by examining the directed behavior between the various dyads on a weekly basis. The time span is two years, 1966-1967. Again this period is somewhat arbitrary but should adequately encompass the period that I am

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Syrian-Israeli Interactions

The frequency and intensity of behavior between the dyads of Syria, Egypt, Jordan, and Israel are portrayed in Tables 14-19 on a weekly basis for 1966 and 1967.⁴⁴ Examining first the Syrian-Israeli dyad (Tables 14 and 15), one can see that only a few sporadic events occurred in early and mid-1966, most notably in late July, August, and early September. These events are of relatively hostile intensity but are infrequent. By early October 1966, however, the frequency of action increased and continued at a relatively high level through July 1967. The intensity of the activities varies, but they are all in the high intensity range. In August 1967, the interactions decreased drastically to little or no interaction through December. When any interaction does occur in this latter period, it is mainly of the protest or accusation variety. Moreover, the pattern for these parts of the years is similar for either the Syria to Israel or the Israel to Syria behavior.

It would seem then that the October through July period was the crisis period in terms of the frequency and intensity of events between the nations. Not surprisingly, of course, this period encompasses the suggested perceptual onset of the crisis in each of

Table 14.--Directed Behavior in Crisis/Noncrisis Periods: Syria to Israel, 1966-1967.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1966		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	1	11.0
16-23	1	11.0
24-31	0	0
March		
1-7	1	8.0
8-15	1	4.0
16-23	0	0
24-31	0	0
April		
1-7	1	8.0
8-15	0	0
16-23	0	0
24-31	3	10.3
May		
1-7	2	9.5
8-15	2	8.0
16-23	1	8.0
24-31	0	0
June		
1-7	2	9.5
8-15	1	8.0
16-23	0	0
24-31	0	0
July		
1-7	0	0
8-15	2	10.0
16-23	3	8.0
24-31	3	7.33
August		
1-7	0	0
8-15	2	7.5
16-23	3	8.0
24-31	2	8.0

Table 14.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	2	9.0
8-15	2	9.0
16-23	0	8.0
24-31	0	0
October		
1-7	1	8.0
August 1967		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	2	8.0
October		
1-7	1	8.0
8-15	1	8.0
16-23	0	0
24-31	0	0
November		
1-7	1	11.0
8-15	0	0
16-23	1	8.0
24-31	0	0
December		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	8.0

Crisis Period

October 1966		
8-15	5	8.0
16-23	5	8.4
24-31	2	10.0
November		
1-7	3	10.67
8-15	4	10.25
16-23	1	8.0
24-31	0	0

Table

Time

December

January

February

March

April

May

June

July

Table 14.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
December		
1-7	3	8.33
8-15	0	0
16-23	1	8.0
24-31	2	10.0
January 1967		
1-7	6	11.0
8-15	10	10.0
16-23	3	6.67
24-31	4	6.50
February		
1-7	2	7.0
8-15	2	10.0
16-23	1	8.0
24-31	1	8.0
March		
1-7	0	0
8-15	1	8.0
16-23	0	0
24-31	0	0
April		
1-7	5	10.40
8-15	5	9.8
16-23	3	8.0
24-31	0	0
May		
1-7	0	0
8-15	4	9.0
16-23	3	8.33
24-31	1	8.0
June		
1-7	6	10.33
8-15	10	7.40
16-23	2	10.5
24-31	1	8.0
July		
1-7	1	8.0
8-15	1	8.0
16-23	3	6.67
24-31	1	6.0

Table

Time

January

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March

April

May

June

July

August

Table 15.--Directed Behavior in Crisis/Noncrisis Periods: Israel to Syria, 1966-1967.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1966		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	1	8.0
8-15	3	7.67
16-23	1	11.0
24-31	0	0
March		
1-7	0	0
8-15	1	4.0
16-23	0	0
24-31	0	0
April		
1-7	1	10.0
8-15	0	0
16-23	0	0
24-31	1	10.0
May		
1-7	1	11.0
8-15	0	0
16-23	1	8.0
24-31	0	0
June		
1-7	1	11.0
8-15	0	0
16-23	0	0
24-31	0	0
July		
1-7	0	0
8-15	2	9.5
16-23	1	6.0
24-31	1	8.0
August		
1-7	0	0
8-15	3	7.67
16-23	2	8.0
24-31	2	8.0

Table 15.--Co

Time Period

September

1-7

8-15

16-23

24-31

October

1-7

August 1967

1-7

8-15

16-23

24-31

September

1-7

8-15

16-23

24-31

October

1-7

8-15

16-23

24-31

November

1-7

8-15

16-23

24-31

December

1-7

8-15

16-23

24-31

October 1966

8-15

16-23

24-31

November

1-7

8-15

16-23

24-31

Table 15.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	1	8.0
8-15	2	9.0
16-23	0	0
24-31	0	0
October		
1-7	0	0
August 1967		
1-7	0	0
8-15	1	8.0
16-23	0	0
24-31	0	0
September		
1-7	2	7.0
8-15	1	8.0
16-23	0	0
24-31	2	8.0
October		
1-7	1	8.0
8-15	1	6.0
16-23	1	8.0
24-31	2	8.0
November		
1-7	1	10.0
8-15	0	0
16-23	0	0
24-31	1	4.0
December		
1-7	0	0
8-15	1	6.0
16-23	0	0
24-31	0	0

Crisis Period

October 1966		
8-15	4	8.0
16-23	5	8.2
24-31	1	8.0
November		
1-7	2	9.5
8-15	4	9.5
16-23	2	8.0
24-31	0	0

Table 15.--Co

Time Period

December

1-7
8-15
16-23
24-31

January 1967

1-7
8-15
16-23
24-31

February

1-7
8-15
16-23
24-31

March

1-7
8-15
16-23
24-31

April

1-7
8-15
16-23
24-31

May

1-7
8-15
16-23
24-31

June

1-7
8-15
16-23
24-31

July

1-7
8-15
16-23
24-31

Table 15.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
December		
1-7	3	9.0
8-15	1	6.0
16-23	0	0
24-31	2	9.0
January 1967		
1-7	6	10.0
8-15	4	10.3
16-23	4	7.0
24-31	3	5.37
February		
1-7	1	6.0
8-15	3	9.33
16-23	2	8.0
24-31	0	0
March		
1-7	1	8.0
8-15	2	8.0
16-23	0	0
24-31	1	8.0
April		
1-7	4	9.5
8-15	3	8.33
16-23	2	9.0
24-31	1	8.0
May		
1-7	1	10.0
8-15	2	8.0
16-23	4	8.0
24-31	2	9.0
June		
1-7	12	8.92
8-15	6	8.0
16-23	4	8.0
24-31	1	8.0
July		
1-7	1	8.0
8-15	0	0
16-23	2	6.0
24-31	0	0

Table 16.--D

I

Time Period

January 1966

1-7

8-1

16-2

24-3

February

1-7

8-1

16-2

24-3

March

1-7

8-1

16-2

24-3

April

1-7

8-1

16-2

24-3

May

1-7

8-1

16-2

24-3

June

1-7

8-1

16-2

24-3

July

1-7

8-1

16-2

24-3

August

1-7

8-1

16-2

24-3

Table 16.--Directed Behavior in Crisis/Noncrisis Periods: Jordan to Israel, 1966-1967.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1966		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	2	11.0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
April		
1-7	0	0
8-15	0	0
16-23	2	11.0
24-31	0	0
May		
1-7	2	8.0
8-15	2	11.0
16-23	1	8.0
24-31	1	8.0
June		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
July		
1-7	0	0
8-15	2	9.0
16-23	0	0
24-31	1	8.0
August		
1-7	1	8.0
8-15	0	0
16-23	0	0
24-31	1	8.0

Table 16.--C

Time Period

September

1-7

8-15

16-23

24-30

October 1966

1-7

8-15

16-23

24-30

November

1-7

8-15

16-23

24-30

December

1-7

8-15

16-23

24-30

January

1-7

8-15

16-23

24-30

February

1-7

8-15

16-23

24-30

March

1-7

8-15

16-23

24-30

April

1-7

8-15

16-23

24-30

May

1-7

8-15

16-23

24-30

November

1-7

8-15

16-23

24-30

Table 16.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	10.0
October 1966		
1-7	1	8.0
8-15	7	8.86
16-23	1	10.0
24-31	1	10.0
November		
1-7	0	0
8-15	3	9.67
16-23	4	8.0
24-31	10	8.7
December		
1-7	5	7.6
8-15	0	0
16-23	0	0
24-31	2	6.0
January		
1-7	0	0
8-15	1	8.0
16-23	3	8.33
24-31	0	0
February		
1-7	2	8.0
8-15	2	8.0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	1	8.0
16-23	1	11.0
24-31	0	0
April		
1-7	1	9.0
8-15	1	11.0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
November		
24-31	0	0

Table 16.--Cd

Time Period

December

1-7
8-15
16-23
24-31

May 1967

16-23
24-31

June

1-7
8-15
16-23
24-31

July

1-7
8-15
16-23
24-31

August

1-7
8-15
16-23
24-31

September

1-7
8-15
16-23
24-31

October

1-7
8-15
16-23
24-31

November

1-7
8-15
16-23

Table 16.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
December		
1-7	1	8.0
8-15	0	0
16-23	1	10.0
24-31	1	8.0
Crisis Period		
May 1967		
16-23	2	8.5
24-31	4	8.25
June		
1-7	6	9.67
8-15	6	6.67
16-23	4	7.5
24-31	8	6.75
July		
1-7	3	6.67
8-15	3	8.0
16-23	1	4.0
24-31	0	0
August		
1-7	4	8.25
8-15	4	7.0
16-23	0	0
24-31	0	0
September		
1-7	3	10.0
8-15	0	0
16-23	1	6.0
24-31	1	8.0
October		
1-7	2	7.0
8-15	1	11.0
16-23	0	0
24-31	1	6.0
November		
1-7	5	7.8
8-15	1	11.0
16-23	7	9.0

Table 17.--1

Time Period

January 1966

1-7

8-1

16-2

24-3

February

1-7

8-1

16-2

24-3

March

1-7

8-1

16-2

24-3

April

1-7

8-1

16-2

24-3

May

1-7

8-1

16-2

24-3

June

1-7

8-1

16-2

24-3

July

1-7

8-1

16-2

24-3

August

1-7

8-1

16-2

24-3

Table 17.--Directed Behavior in Crisis/Noncrisis Periods: Israel to Jordan, 1966-1967.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1966		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	1	11.0
8-15	1	11.0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
April		
1-7	0	0
8-15	0	0
16-23	1	11.0
24-31	3	9.0
May		
1-7	2	9.5
8-15	2	11.0
16-23	0	0
24-31	1	11.0
June		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
July		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
August		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Table 17.--

Time Period

September

1-7

8-1

16-2

24-3

October 1966

1-7

8-1

16-2

24-3

November

1-7

8-1

16-2

24-3

December

1-7

8-1

16-2

24-3

January

1-7

8-1

16-2

24-3

February

1-7

8-1

16-2

24-3

March

1-7

8-1

16-2

24-3

April

1-7

8-1

16-2

24-3

May

1-7

8-1

November

24-3

Table 17.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	8.0
October 1966		
1-7	0	0
8-15	4	8.75
16-23	2	9.5
24-31	1	10.0
November		
1-7	0	0
8-15	3	10.0
16-23	5	7.0
24-31	1	11.0
December		
1-7	1	6.0
8-15	1	6.0
16-23	0	0
24-31	0	0
January		
1-7	0	0
8-15	1	11.0
16-23	3	9.33
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	3	10.33
24-31	0	0
April		
1-7	0	0
8-15	1	10.0
16-23	0	0
24-31	0	0
May		
1-7	0	0
8-15	0	0
November		
24-31	0	0

Table 17

Time Pe

December

May 196

June

July

August

Septemb

October

Novembe

Table 17.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
December		
1-7	0	0
8-15	2	7.0
16-23	1	10.0
24-31	0	0
Crisis Period		
May 1967		
16-23	2	7.67
24-31	3	8.67
June		
1-7	10	9.0
8-15	3	8.0
16-23	2	8.0
24-31	5	7.0
July		
1-7	1	4.0
8-15	0	0
16-23	1	8.0
24-31	1	8.0
August		
1-7	4	9.25
8-15	2	8.0
16-23	3	8.0
24-31	2	6.0
September		
1-7	4	9.0
8-15	2	7.0
16-23	1	8.0
24-31	1	6.0
October		
1-7	1	6.0
8-15	2	9.5
16-23	1	8.0
24-31	2	8.0
November		
1-7	4	8.25
8-15	2	10.5
16-23	2	10.5

Table 18.-

Time Period

January 196

1-

8-

16-

24-

February

1-

8-

16-

24-

March

1-

8-

16-

24-

April

1-

8-

16-

24-

May

1-

8-

16-

24-

June

1-

8-

16-

24-

July

1-

8-

16-

24-

August

1-

8-

16-

24-

1-

8-

16-

24-

Table 18.--Directed Behavior in Crisis/Noncrisis Periods: Egypt to Israel, 1966-1967.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1966		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	2	8.0
24-31	0	0
March		
1-7	1	8.0
8-15	0	0
16-23	0	0
24-31	1	4.0
April		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	0	0
May		
1-7	0	0
8-15	1	8.0
16-23	2	8.0
24-31	0	0
June		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
July		
1-7	0	0
8-15	0	0
16-23	4	7.0
24-31	1	4.0
August		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	8.0

Table

Time

Septem

Octobe

Novem

Decem

Janua

Febru

March

Apri

May

Table 18.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
October 1966		
1-7	1	8.0
8-15	0	0
16-23	1	8.0
24-31	0	0
November		
1-7	0	0
8-15	2	8.0
16-23	1	8.0
24-31	1	11.0
December		
1-7	1	6.0
8-15	0	0
16-23	0	0
24-31	0	0
January 1967		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
April		
1-7	0	0
8-15	0	0
16-23	2	8.0
24-31	0	0
May		
1-7	0	0

Table 18.-

Time Period

November

1-

8-

16-

24-

December

1-

8-

16-

24-

May 1967

8-

16-

24-

June

1-

8-

16-

24-

July

1-

8-

16-

24-

August

1-

8-

16-

24-

September

1-

8-

16-

24-

October

1-

8-

16-

24-

Table 18.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
November		
1-7	0	0
8-15	1	4.0
16-23	0	0
24-31	0	0
December		
1-7	1	8.0
8-15	2	6.0
16-23	0	0
24-31	0	0

Crisis Period

May 1967		
8-15	2	9.0
16-23	9	8.89
24-31	14	8.43
June		
1-7	11	10.09
8-15	7	8.29
16-23	3	7.33
24-31	1	6.0
July		
1-7	5	10.40
8-15	6	8.83
16-23	6	8.17
24-31	1	8.0
August		
1-7	3	4.0
8-15	0	0
16-23	1	8.0
24-31	2	5.0
September		
1-7	3	9.0
8-15	2	9.5
16-23	2	11.0
24-31	3	7.33
October		
1-7	1	8.0
8-15	2	8.0
16-23	5	9.0
24-31	2	8.0

Table 19.

Time Per

January 19

1

8

16

24

February

1

8

16

24

March

1

8

16

24

April

1

8

16

24

May

1

2

June

1

2

July

1

2

August

1

2

1

2

Table 19.--Directed Behavior in Crisis/Noncrisis Periods: Israel to Egypt, 1966-1967.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
Noncrisis Period		
January 1966		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
March		
1-7	1	6.0
8-15	0	0
16-23	0	0
24-31	1	4.0
April		
1-7	0	0
8-15	0	0
16-23	1	8.0
24-31	0	0
May		
1-7	0	0
8-15	0	0
16-23	2	8.0
24-31	0	0
June		
1-7	0	0
8-15	0	0
16-23	2	8.0
24-31	0	0
July		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
August		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0

Table 19.

Time Period

September

1

8

16

24

October 19

1

8

16

24

November

1

8

16

24

December

1

8

16

24

January 1

1

2

February

1

2

March

1

2

April

1

2

May

1

2

Table 19.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
September		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
October 1966		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
November		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	11.0
December		
1-7	0	0
8-15	1	8.0
16-23	0	0
24-31	1	8.0
January 1967		
1-7	0	0
8-15	0	0
16-23	1	4.0
24-31	0	0
February		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
March		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	0	0
April		
1-7	1	11.0
8-15	0	0
16-23	0	0
24-31	0	0
May		
1-7	0	0

Table 19.--Continued.

Time Period	Number of Acts/Week	Mean Intensity of Acts/Week
November		
1-7	0	0
8-15	0	0
16-23	0	0
24-31	1	4.0
December		
1-7	1	8.0
8-15	2	7.0
16-23	0	0
24-31	0	0

Crisis Period

May 1967		
8-15	4	8.0
16-23	6	8.17
24-31	6	8.67
June		
1-7	13	9.15
8-15	7	6.57
16-23	4	7.0
24-31	3	8.0
July		
1-7	6	11.0
8-15	12	9.17
16-23	3	8.0
24-31	1	4.0
August		
1-7	4	5.0
8-15	1	8.0
16-23	0	0
24-31	2	7.5
September		
1-7	5	7.5
8-15	6	7.17
16-23	4	9.5
24-31	0	0
October		
1-7	1	4.0
8-15	2	8.5
16-23	4	9.0
24-31	4	9.0

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these nations in early October, continues through the Six Day War and slightly beyond until the end of July 1967.

If the raw data for the two year period are summarized along the crisis/noncrisis period with the crisis period from October 8, 1966 through July 31, 1967 and the noncrisis period from January 1966 through October 1966 and August 1967 through December 1967, the differences between the periods become very clear. The total number of events for the crisis period was 198 with 102 initiated by Syria and 96 initiated by Israel. For the noncrisis period, only 84 events occurred over the 57 weeks with 45 by Syria and 39 by Israel. See Table 20. While these differences are substantial, computing the means for the periods produce even sharper differences. About 2.5 events per week occur in the crisis period as opposed to about .75 events on the "average" in the noncrisis period. Turning to the mean intensity in the crisis/noncrisis periods, the differences are also marked. For the crisis period, the mean intensity was 7.06 (employing the thirteen point scale) for Syria to Israel compared to 4.02 in the noncrisis period. A similar pattern holds for Israel to Syria behavior. The mean intensity for the crisis period was 6.97 and only 3.96 for the noncrisis period. Such differences suggest that on the "average," the events were approximately 1.75 more hostile in the crisis than in the noncrisis period.⁴⁵ See Tables 21.

Finally, the extent of the differences for the two periods can be verified statistically by a difference of means test (a t-test) for mean frequency and mean intensity of events. The results are significant and in line with our expectations. See Tables 22 and 23. In short, it seems safe to conclude that the October 1966 to July 1967

Table 20.

Syria to

Crisis
(N=39 weeks)

Noncrisis
(N=57 weeks)

Jordan to

Crisis
(N=25 weeks)

Noncrisis
(N=71 weeks)

Egypt to

Crisis
(N=23 weeks)

Noncrisis
(N=72 weeks)

*

Table 20.--Total and Mean Number of Events in Periods of Crisis and Noncrisis for Dyads of Syria, Jordan, Egypt, and Israel, 1966-1967.

<u>Syria to Israel</u>		<u>Israel to Syria</u>	
Crisis (N=39 weeks)	102 (2.62) *	Crisis (N=39 weeks)	96 (2.46)
Noncrisis (N=57 weeks)	45 (.78)	Noncrisis (N=57 weeks)	39 (.68)
<u>Jordan to Israel</u>		<u>Israel to Jordan</u>	
Crisis (N=25 weeks)	67 (2.68)	Crisis (N=25 weeks)	61 (2.44)
Noncrisis (N=71 weeks)	65 (.92)	Noncrisis (N=71 weeks)	41 (.57)
<u>Egypt to Israel</u>		<u>Israel to Egypt</u>	
Crisis (N=23 weeks)	91 (3.96)	Crisis (N=23 weeks)	98 (4.26)
Noncrisis (N=72 weeks)	27 (.37)	Noncrisis (N=73 weeks)	16 (.22)

*Indicates the mean number of events per week.

Table 21.--Mean Intensity of Events* in Periods of Crisis and Noncrisis for Dyads of Syria, Jordan, Egypt, and Israel, 1966-1967.

<u>Syria to Israel</u>		<u>Israel to Syria</u>	
Crisis (N=39 weeks)	7.06	Crisis (N=39 weeks)	6.97
Noncrisis (N=57 weeks)	4.02	Noncrisis (N=57 weeks)	3.96
<u>Jordan to Israel</u>		<u>Israel to Jordan</u>	
Crisis (N=25 weeks)	6.28	Crisis (N=25 weeks)	7.61
Noncrisis (N=71 weeks)	3.90	Noncrisis (N=71 weeks)	2.92
<u>Egypt to Israel</u>		<u>Israel to Egypt</u>	
Crisis (N=23 weeks)	7.84	Crisis (N=23 weeks)	7.10
Noncrisis (N=73 weeks)	1.89	Noncrisis (N=73 weeks)	1.30

*All events were scaled with the Thirteen Point Scale. For a discussion of the scale and the scaling procedures, see Chapter IV.

Table 22.

Syria to
Crisis Per
N=39

Noncrisis
N=57

Israel to
Crisis Per
N=39

Noncrisis
N=57

Jordan to
Crisis Per
N=25

Noncrisis
N=71

Israel to
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Table 22.--T-Test Results of Crisis vs. Noncrisis Period Adjusted for Unequal Sample Sizes and Heterogeneous Variances: Number of Acts/Week, 1966-1967.^a

				Sign. Level
<u>Syria to Israel</u>				
<u>Crisis Period</u>				
N=39	$s_1^2 = 5.892$	F = 6.281	t = 4.461	.01
Noncrisis Period				
N=57	$s_2^2 = .938$		t' = 2.745	
<u>Israel to Syria</u>				
<u>Crisis Period</u>				
N=39	$s_1^2 = .672$	F = 7.5409	t = 4.721	.01
Noncrisis Period				
N=57	$s_1^2 = 5.069$		t' = 2.746	
<u>Jordan to Israel</u>				
<u>Crisis Period</u>				
N=25	$s_1^2 = 5.418$	F = 1.948	t = 5.211	.01
Noncrisis Period				
N=71	$s_1^2 = 2.782$		t = 2.774	
<u>Israel to Jordan^b</u>				
<u>Crisis Period</u>				
N=25	$s_1^2 = 3.766$	F = 1.219 (N.S.)	t = 4.386	.01
Noncrisis Period				
N=71	$s_1^2 = 3.089$			
<u>Egypt to Israel</u>				
<u>Crisis Period</u>				
N=23	$s_1^2 = 11.868$	F = 22.205	t = 4.958	.01
Noncrisis Period				
N=71	$s_1^2 = .534$		t' = 2.816	
<u>Israel to Egypt</u>				
<u>Crisis Period</u>				
N=23	$s_1^2 = 10.366$	F = 40.919	t = 5.997	.01
Noncrisis Period				
N=71	$s_2^2 = .253$		t' = 2.818	

^aSee note under Table 12 for description of exact tests employed. Adjustments, of course, had to be made for appropriate degrees of freedom in calculating the particular statistic.

^bIn this dyad, the variances were not statistically different from one another; therefore, a t-test adjusted for sample size differences was employed. See note under Table 13.

Table 23.

Syria to
Crisis
N=31

Noncrisis
N=57

Israel to
Crisis
N=39

Noncrisis
N=57

Jordan to
Crisis
N=25

Noncrisis
N=71

Israel to
Crisis
N=25

Noncrisis
N=71

Egypt to
Crisis
N=23

Noncrisis
N=73

Israel to
Crisis
N=73

Noncrisis
N=73

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Table 23.--T-Test Results of Crisis vs. Noncrisis Period Adjusted for Unequal Sample Sizes and Heterogeneous Variances: Mean Intensity of Acts/Week, 1966-1967.^a

				Sign. Level
<u>Syria to Israel^b</u>				
Crisis				
N=31	$s_1^2 = 12.404$	F = 1.523 (N.S.)	t = 3.588	.01
Noncrisis				
N=57	$s_2^2 = 18.886$			
<u>Israel to Syria</u>				
Crisis				
N=39	$s_1^2 = 9.989$	F = 1.78	t = 3.995	.01
Noncrisis				
N=57	$s_2^2 = 17.792$		t' = 2.723	
<u>Jordan to Israel^b</u>				
Crisis				
N=25	$s_1^2 = 12.152$	F = 1.679 (N.S.)	t = 2.369	.01
Noncrisis				
N=71	$s_2^2 = 20.407$			
<u>Israel to Jordan</u>				
Crisis				
N=25	$s_1^2 = 4.368$	F = 4.537	t = 6.967	.01
Noncrisis				
N=71	$s_2^2 = 19.816$		t' = 2.707	
<u>Egypt to Israel</u>				
Crisis				
N=23	$s_1^2 = 5.193$	F = 2.103	t = 9.706	.01
Noncrisis				
N=73	$s_2^2 = 10.920$		t' = 4.923	
<u>Israel to Egypt</u>				
Crisis				
N=73	$s_1^2 = 7.523$	F = 1.157 (N.S.)	t = 8.277	.01
Noncrisis				
N=73	$s_2^2 = 8.704$			

^aSee note under Table 12 for description of exact tests employed. Adjustments, of course, had to be made for appropriate degrees of freedom in calculating the particular statistic.

^bFor these dyads, variances were not statistically different from one another; therefore, a t-test adjusted for sample size differences was employed. See note under Table 13.

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is a period considerably different in behavior between Syria and Israel then the rest of the time span. Thus, this period will be the time span for further analysis with the crisis models.

Jordanian-Israeli Interactions

For the Jordan-Israel dyad, the examination of the interaction patterns becomes even more crucial. As was indicated, the es-Samu raid of November 1966 was sometimes cited as the onset of the crisis period. When examining the events between the dyads for 1966-1967, some interesting findings emerge. In the first three quarters of 1966, very few interactions occur between the parties. In October, November, and part of December, however, the frequency and intensity of interactions increase on a weekly basis. This is precisely around the time of es-Samu incident. Yet early in 1967 the number of interactions decrease rather quickly in January and February and continue to fall off in March, April, and into early May. At this juncture, however, around the middle of May, the frequency and intensity increases for each nation toward the other. This condition continues at a fairly regular pace through the latter part of November and then falls off rather quickly in December 1967.

What this profile seems to suggest is that around the es-Samu incident a crisis situation emerged on the interaction dimension but that it was short-lived. Moreover, it is not directly linked to the dynamic process that led to the outbreak of the June War of 1967. Rather the crisis for Jordan and Israel as related to the June War begins in the middle of May (about the time of renewed Syrian-Israeli encounters and the Egyptian request for the withdrawal of United

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Nations forces from Sinai). The crisis condition on this particular dimension continues for a considerable time into late November until about the time of the passage of the 242 Resolution in the United Nations Security Council which was to provide the framework for settling the conflict in the Middle East in a peaceful way.

The crisis period around the occurrence of the Six Day War, therefore, lasted from the middle of May 1967 through the latter part of November 1967. On the face of it, the difference in the mean frequency of the events and the mean intensity of these same events is considerably different from the rest of the time frame under investigation. See Tables 16 and 17. If, however, the crisis/noncrisis dichotomy is again employed, the differences become even more apparent. Considering the crisis period (the week of May 16 through the week of November 23, 1967), the total number of events for this dyad is 128 with 67 initiated by Jordan and 61 initiated by Israel. For the noncrisis period, a period consisting of the rest of the weeks in this two year time frame, the total number of events is 106 with 65 by Jordan and 41 by Israel.⁴⁶ While the totals for crisis and noncrisis are somewhat different, they are not markedly so. One should remember that the length of the time spans are critical here. For the crisis period, the mean number of events per week is about 2.5 while for the noncrisis period the mean number of events is less than 1.0. See Table 20. Similarly, on the mean intensity dimension, the crisis/noncrisis differences are considerable. See Table 21. For the crisis period, the mean level is 6.28 for Jordan to Israel and 7.61 for Israel to Jordan while for the noncrisis period, Jordan to Israel

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averages 3.90 and for Israel to Jordan averages 2.92. Again, one can see a considerable difference in mean intensity.

Finally, the extent of the differences for the period are verified statistically by a difference of means test (a t-test) for mean frequency and mean intensity of events. See Tables 22 and 23. The results are highly significant and in line with our expectations. Again, it seems safe in utilizing the middle of May through the latter part of November as the appropriate crisis period for the Six Day War and shall be the focal point of further analysis.

Egyptian-Israeli Interactions

Examining the Egypt-Israel dyad on the behavioral dimension, one finds only a few events occurring in the entire year of 1966. See Tables 18 and 19. Of the relatively few events that do occur, Egypt seems to initiate more toward Israel than Israel toward Egypt. However, the total events (29) is so few that not much activity is taking place. This situation of very low interaction continues through the early months of 1967. In fact, it is really not until early May that any activities occur between the nations. From that time and until late October 1967, however, a considerable number of events take place between the two nations. By November and through December, though, virtually no activity occurs and what does occur is at a rather low intensity.

On this visual inspection alone, it seems safe to state that the crisis period around the Six Day War occurred from early May through October 1967 for Egypt and Israel. Nor surprisingly, of course, the beginning is in line with the perceptual change that was

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noted with the decisionmaking apparatus of each nation at that particular time. If one uses the dichotomization of the two year period of 1966 and 1967 into crisis and noncrisis periods, the differences on the interaction dimension are again considerable. For the crisis period of some 23 weeks, the total number of events that Egypt and Israel enacted toward each other was 189 with 91 initiated by Egypt and 98 initiated by Israel. In the noncrisis period of 73 weeks, the total events were 43 with 27 by Egypt and 16 by Israel. Again the differences in mean number of events are striking. In the crisis period, the mean number was 3.96 for Egypt to Israel and 4.26 for Israel to Egypt. In the noncrisis period, the mean frequency was .37 for Egypt to Israel and .22 for Israel to Egypt. Similarly, on the mean intensity dimension in the crisis/noncrisis breakdown, the mean intensity of Egyptian behavior toward Israel was 7.84 for the crisis period and only 1.89 for the noncrisis period. For the Israeli behaviors toward Egypt, the mean intensity was 7.10 and 1.30 for the crisis and noncrisis periods, respectively. All of these results are portrayed in Tables 20 and 21.

Finally, as with the other dyads, a t-test was performed to verify the differences in mean frequency and mean intensity of events between these nations. The results are highly significant and are portrayed in Tables 22 and 23. In sum, it seems apparent that this period which I labeled "crisis" merits such a label in its considerable difference from the rest of the occurrences in this time frame and shall be the focus of further analysis shortly.

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Summary of Crises

The demarcation of the crisis for each period and for the participants can now be summarized. In the Suez situation, the crisis for Britain, France, and Egypt extended from late July 1956 through March 1957. For Israel and Egypt, the crisis situation is somewhat longer dating from September 1955 through March 1957. For the Six Day War situation, the crisis period differ for the dyads. For Israel and Syria, the crisis extends from early October 1966 through July 1967. For Jordan and Israel, the crisis lasted from the middle of May 1967 through late November 1967. For Egypt and Israel, the crisis period is from the middle of May through late October 1967. Thus, the analysis will be performed for these dyads in these periods in Chapter V. Prior to this analysis, however, I will explain the data and the method of analysis in Chapter IV.

Caveats on the Case Study Approach: Internal and External Validity

Before proceeding with the empirical examination of the hypotheses regarding crisis behavior in the Middle East cases, a brief word is necessary about the advantages and limitations of the case study approach in efforts to build social science theory. The building of social science theory is dependent upon the development of logical, deductive arguments from which testable hypotheses about social reality are derived. In turn, the scientific enterprise requires the testing of those hypotheses in a rigorous, systematic way. Assuming testable hypotheses about crisis behavior, the question is whether the case study is a useful context for testing hypotheses from a theoretical framework.

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What I am really asking is whether the theoretical statements can be evaluated in a case study setting: that is, does a case study provide a sufficient test of the hypotheses? The answer to this question hinges to a considerable extent upon the degree of internal and external validity that the case study provides.⁴⁷ Internal validity refers to the degree of certainty one has in stating that the hypothesized independent variables are the ones which produced the results in the dependent variable. In other words, a research design with high internal validity controls extraneous variables or confounding effects which might contaminate the results in the dependent variable and thus confuse the impact of the hypothesized independent variables. External validity, on the other hand, refers to the generalizability of the findings in a particular study. That is, a research design with high external validity has the capacity to move beyond the particular instance to make a general statement about the operation of the phenomenon in the larger social reality with a relatively high degree of certainty. While external validity on the face of it seems more crucial for the accumulation of knowledge and theory building, without internal validity science cannot hope to advance or even occur.

The case study approach usually obtains rather high marks on internal validity. Such high marks result from the fact that the case study is limited in scope. With a case study, one is working with one instance of a phenomenon at a particular point in time. This condition immediately reduces the number of possible extraneous variables. Thus, the researcher can give close attention to adequate operationalization and measurement of the variables under investigation. For example, in

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the following chapter, considerable discussion is given the collection and measurement of the data in order to obtain relatively high internal validity in this area.

Despite the "closedness" of the case study design, however, some efforts are nevertheless necessary to control either (1) intervening and unspecified variables, or (2) confounding effects of the interaction among designated independent variables. On the first point, for example (again referring to the upcoming research design), I give considerable attention to the problem of autocorrelation in the data (i.e., the time factor in the data). Such autocorrelation, while extraneous to the study, could considerably confuse the findings. I must, therefore, introduce controls for this problem. Similarly, even with controls on variables outside the purview of the investigation, the problem of internal validity is not resolved. For example, the interaction effect of the independent variables may produce the results in the dependent variable. Thus, controls are also necessary to circumvent this problem. In this regard, in my design, the problem of multicollinearity is possible, and it must be investigated and controlled. While these examples illustrate the controls that are necessary even in a case study, they should also suggest that the extent of the necessary controls are reduced when contrasted to, say, a longitudinal or cross-national design.

It is important to point out that the problems concerning internal validity are being reduced across all study designs because of the increasingly sophisticated use of probability statistics. Such statistics "sort out" the effects of intervening and confounding

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variables.⁴⁸ Nevertheless, it is equally important to note that the case study, from the very start, is likely to do better on internal validity than other study designs because of the restrictive nature of the study itself. In sum, case studies do well on internal validity and, on this dimension therefore, are useful for assessing theoretical hypotheses.

On the question of external validity, the case study does not do as well as it did on internal validity. In fact, the external validity question has probably been the focal point of criticism for the case study method. Arend Lijphart has succinctly stated its fundamental limitation: "A single case can constitute neither the basis for a valid generalization or the grounds for disproving an established generalization."⁴⁹ Thus, the scientific worth of the case study is usually questioned.

Despite this charge, the case study does serve a vital part in the testing of hypotheses and in building social science theory. If the case study tests hypotheses from a theoretical perspective (as I assume), the case can increase our knowledge about the phenomenon in that setting. If the hypotheses are confirmed, their strength as explanations of reality are enhanced while if the hypotheses are disconfirmed, their strength as explanations is weakened. However, the theoretical hypotheses as general explanation are only strengthened or weakened to a degree by this particular case precisely because they are examined only in the one case (that is, generalizing from one case is too risky).

While the findings of the case must be regarded as tentative for general theory building, the case does serve another important

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role in the scientific process. By continuing to test theoretical hypotheses over succeeding number of cases, the worth of the explanations are constantly examined. Through such a procedure the case study approach becomes explicitly linked to the comparative method (the greater the number of cases of a phenomenon, the greater the reliability in the findings that result), and the comparative method in turn is the context from which all social science theory is derived.⁵⁰ In this sense, then, the case study approach becomes a highly useful instrument and integral step in social science theory building.

In sum, the case study approach does well on internal validity and less well on external validity. However, at the early stages of the testing of theoretical hypotheses, it is perhaps more beneficial to obtain high internal validity at the expense of external validity. Moreover, as I said above, the worth of the findings in a particular study can always be evaluated by investigating more cases. Thus, it is from this rather modest perspective that I examine Middle East crises as "cases of" the larger international crisis phenomenon, not only to test important theoretical hypotheses within this setting but also to advance social science theory.

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FOOTNOTES--CHAPTER III

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²Ibid.

³Gamal Abdel Nasser, "Nationalization of the Suez Canal: Decree of the Egyptian Government, July 26, 1956," in Ralph H. Magnus (ed.), Documents on the Middle East (Washington, D.C.: American Enterprise Institute, 1969), pp. 167-169.

⁴See, for example, Edward E. Azar, "The Dimensionality of Violent Conflict: A Quantitative Analysis" (a paper presented at the Peace Research Society (International) Cambridge, Massachusetts, June, 1970; mimeo); and Randolph M. Siversen, "Inter-Nation Conflict, Dyadic and Mediated: Egypt, Israel, and the United Nations, 1956-57" (unpublished doctoral dissertation, Stanford University, 1969).

⁵Fayez A. Sayegh, Notes on the Suez Canal Controversy (New York: Arab Information Center, November, 1956).

⁶The references are identified in footnote four.

⁷Of course, one must be aware of the rather vexatious problem of "selective memory" when employing these sources of data. That is, the decisionmakers may recall that portion of reality that puts them in a particularly good light.

⁸Anthony Eden, Full Circle (Boston: Houghton, Mifflin Company, 1960), p. 472.

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¹⁰Eden, op. cit., p. 473 (emphasis added).

¹¹Ibid., p. 474.

¹²Ibid., pp. 474-475.

¹³Ibid., p. 476.

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¹⁴Hugh Gaitskell, "Answers by the Prime Minister, Sir Anthony Eden, to Questions in the House of Commons, 27 July 1956," in James Eayrs (ed.), The Commonwealth and Suez (London: Oxford University Press, 1964), p. 25. For a more complete statement of Gaitskell's position, see also "Extracts House of Commons," pp. 33-37 in the same volume.

¹⁵Leon Epstein, British Politics in the Suez Crisis (Urbana: University of Illinois, 1964).

¹⁶Peter Calvocoressi, Suez Ten Years After (New York: Pantheon Books, 1967), p. 35. (This book is a collection of interviews with leading decisionmakers involved in Suez.)

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¹⁸Ibid., p. 62.

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²⁰Moshe Dayan, The Diary of the Sinai Campaign (New York: Harper and Row, 1965), p. 4.

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²²Ibid., pp. 446-454. cf. Earl Berger, The Covenant and the Sword (London: Routledge and Kegan Paul, Ltd., 1965), pp. 203-216.

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²⁴For evidence supporting this argument, see Robert Burrowes and Douglas Muzzio, "The Road to the Six Day War: Aspects of an Enumerative History of Four Arab States and Israel, 1965-1967," The Journal of Conflict Resolution, XVI, No. 2 (June, 1972), 211-226.

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Israel and World Politics: The Roots of the Third Arab-Israeli War (New York: The Viking Press, 1968); and Lincoln P. Bloomfield and Amelia C. Leiss, Controlling Small Wars: A Strategy for the 1970's (New York: Alfred A. Knopf, 1969), chapter 9.

²⁶U.S. Foreign Broadcast Information Service, "Israel," September 18, 1966, p. H-1.

²⁷U.S. Foreign Broadcast Information Service, "Israel," October 11, 1966, p. H-1.

²⁸Ibid.

²⁹U.S. Foreign Broadcast Information Service, "Syria," September 21, 1966, p. G-1.

³⁰U.S. Foreign Broadcast Information Service, "Syria," October 13, 1966, p. G-1.

³¹U.S. Foreign Broadcast Information Service, "Syria," October 14, 1966, p. G-1.

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³³U.S. Foreign Broadcast Information Service, "Jordan," November 14, 1966, p. D-1.

³⁴U.S. Foreign Broadcast Information Service, "Jordan," November 30, 1966, p. D-2.

³⁵U.S. Foreign Broadcast Information Service, "Jordan," November 22, 1966, p. D-8.

³⁶U.S. Foreign Broadcast Information Service, "Jordan," November 21, 1966, p. D-2.

³⁷U.S. Foreign Broadcast Information Service, "United Arab Republic," April 11, 1967, p. B-1.

³⁸Yost, op. cit., 1968, pp. 306-307.

³⁹U.S. Foreign Broadcast Information Service, "Israel," May 13, 1967, p. H-1.

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⁴⁰These various activities are documented in the U.S. Foreign Broadcast Information Service under the United Arab Republic heading for May 16, 17, and 18, 1967.

⁴¹U.S. Foreign Broadcast Information Service, "United Arab Republic," May 17, 1967, p. B-1.

⁴²U.S. Foreign Broadcast Information Service, "Israel," May 21, 1967, p. H-1.

⁴³U.S. Foreign Broadcast Information Service, "Jordan," May 18, 1967, p. D-1.

⁴⁴While Tables 14-19 are arranged along the crisis/noncrisis dichotomy in line with the subsequent discussion, they do cover the entire two year period and can easily be inspected chronologically.

⁴⁵The same caveat about the occurrences and non-occurrences of events discussed on p. 110 holds here as well.

⁴⁶The noncrisis period includes the increase in frequency and intensity of behavior around the es-Samu incident. If this period were removed, event greater differences between the crisis period around the Six Day War and the rest of the two year time span would have occurred.

⁴⁷Donald T. Campbell and Julian C. Stanley in their Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally and Company, 1966), provide the best discussion of the problems of internal and external validity. See, in particular, pp. 5-6.

⁴⁸Arend Lijphart makes this point well especially with his reference to the use of the partial correlation. See his "Comparative Politics and the Comparative Method," The American Political Science Review, LV (September, 1971), p. 684.

⁴⁹Ibid., p. 691. cf. "Case studies never 'prove' anything. Their purpose is to illustrate generalization what are established otherwise, or to direct attention to such generalizations." Harry Eckstein, Pressure Group Politics (Stanford, Calif.: Stanford University Press, 1960), p. 15. See also the remarks on case studies by Bernard E. Brown and Martin Landau in James B. Christoph and Bernard E. Brown (eds.), Cases in Comparative Politics, 2nd ed. (Boston: Little Brown, 1966), pp. 3-32.

⁵⁰This point is made well by Lijphart, op. cit., p. 691.

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CHAPTER IV

THE DATA AND METHODOLOGY FOR EVALUATING THE CRISIS MODELS

The goals of this chapter are to operationalize the concepts of the crisis models and to outline the techniques for evaluating each model. To accomplish these goals, considerable discussion must first be given to the type of data that will operationalize the concepts into variables. In this connection, the first part discusses the collection and scaling of international events data in general and for this study in particular. In the second part, the discussion turns to the precise operationalization of the concepts by these data and to the analysis technique that is employed.

International Events Data

From the discussion of the dyadic crisis models, the three basic concepts of concern are the past behavior of a state, the behavior received from the opposing state, and the response behavior of a state. As one can see, each of these concepts deals exclusively with the behavior within a state or between states over some time period. To operationalize such concepts into meaningful variables for empirical testing, it is essential that one has a technique for

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monitoring such inter-nation behavior. In this connection, international events data are particularly suited for such a task. These data utilize the single international event, or behavior, as the basic unit of analysis in inter-nation processes. Moreover, such a unit of analysis allows the researcher considerable flexibility to aggregate to whatever level (e.g., single event, events per day, events per week, etc.) that is appropriate for his research interest. For this reason, international events data possess considerable promise as an empirical base in examining a wide variety of theoretical formulations in international politics.

Although the use of behavior (i.e., international events) in the study of international relations has existed for some time, the increase in the collection and use of such data is a relatively recent phenomenon. In the early and middle 1960's the number of scholars engaged in the systematic examination of behavior between and within states was a relative handful. Best known of these early efforts was the work by Rummel, Tanter, and the Feierabends, among others.¹ Today, however, scholars with a wide variety of research orientations have employed this type of data in their analyses.² In fact, the events data "movement" has grown so rapidly that it is now increasingly recognized as an important innovation in the quantitative study of international politics.

World Event/Interaction Survey (WEIS)

Throughout these rapid changes in the events data field, Charles McClelland and his associates at the University of Southern California clearly stand out as the pioneers in the development and

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use of this interaction data. In particular, McClelland's World Event Interaction Survey (WEIS) is the best-known research project. This project is essentially a research program on international system characteristics and processes with two primary goals. Firstly, WEIS seeks to develop a data gathering program which will adequately monitor the performance and behavior of states as they interact with other states.³ Secondly, WEIS seeks to use such data "to describe, trace, compare, explain, and predict . . . a particular range of international behavior . . ."⁴ In other words, these data will act as indicators "of behavioral regularities, of trends, and of changes in the direction or patterns of activity in the complex of interactions."⁵ Such data will greatly facilitate the development of empirical theory in the study of inter-state relations.

While the studies on the second goal of WEIS are beginning to emerge by many scholars using the WEIS data, the data collection procedure is well-developed and provides much of the methodological orientation for many data bases including the one that I use. Thus, it seems appropriate to outline briefly this orientation in order to demonstrate the similarity and dissimilarity between this data base and the one used here.

McClelland and his associates use the event/interaction as their basic unit of analysis. Event/interactions are defined as "single action items of a nonroutine, extraordinary, or newsworthy character that in some clear sense are directed across a national boundary and have, in most instances, a specific foreign target."⁶ Such event/interactions are collected by applying this definition to daily newspapers, newmagazines, end-of-the-year chronologies,

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government documents, etc.⁷ However, it is fair to say that for the most part heavy reliance has been placed on a single source in this collection procedure. That source is the New York Times (daily and index). While the New York Times has been found to be a rather comprehensive source,⁸ the whole question of sources is problematic and shall be discussed in greater detail below.

To collect the data from the sources, a number of intermediate steps were required to make the definition more operational and to facilitate the people seeking to code the event/interactions. First of all, a large and comprehensive code was developed for the initiator of the action (i.e., the actor) and the recipient of the action (i.e., the target). This code consists of three-digit numbers for all international actors in the world, ranging from such states as Swaziland and Western Samoa to regional and international organizations as NATO and the UN. In addition, codes were developed to identify the arena where the event/interactions occurred. This code usually identified the region of the world where the conflict was occurring or the particular conflict that the behavior is a part of. For example, codes exist for the Arab-Israeli conflict, Nigeria-Biafra situation, and a number of other general behavior regions in the world.⁹

At the heart of the WEIS classification system is the designation of the different types of "activities" implied in the event/interaction. Sixty-three activity types are posited, but twenty-two cue words really organize these sixty-three types. The key words range from yield, propose, reject, to seize and force.¹⁰ With each event/interaction coded in this manner, this scheme is argued to provide a wide number of uses for analyzing the volume and

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type of activity between states over time or at any point in time. However, this scheme is essentially a nominal scaling technique which some scholars consider problematic for analysis purposes. An alternative to this coding scheme by McClelland is the use of scaling techniques developed by a number of students of international politics. Moreover, this scaling rather than coding technique marks an important difference between McClelland's data and the data employed in this study.

The WEIS collection has proceeded rather well and is the largest data set currently available. At present, data on all actors in the international system since 1966 have been collected and stored. Moreover, a great portion of this data set is on file with the Inter-University Consortium for Political Research at the University of Michigan. In addition, McClelland has supplemented his data by the collection of event/interactions on various conflict situations (e.g., Taiwan, Berlin, Sino-Indian, etc.) in an effort to fill in the time cuts which may be of particular interest to students of international politics.

While McClelland's data set is admittedly large, in another sense it can also be described as relatively restrictive. That is, it covers only a short time span. This fact somewhat handicaps scholars interested in longitudinal studies of international process. However, this limitation seems merely a function of the length of time of this project. Nonetheless, McClelland's pioneering efforts have inspired a great number of collection efforts in the field of events data. Many scholars have now proceeded to fill various gaps in the available data by collecting events on the international subsystems that are of

particular research interest. Examples are Robert Burrowes (Middle East), Patrick McGowan (Africa), Charles Hermann, Steven Salmore, and Maurice East (CREON), Russell Leng and J. David Singer ("Behavioral Correlates of War"), and Edward Azar (Middle East).

Conflict and Peace Data Bank

Of these recent data collection projects, the Conflict and Peace Data Bank developed by Edward Azar is particularly noteworthy. In many ways, it is the most highly developed of any of the new data banks at this time. Azar's collection efforts originated at Michigan State University in 1969 and now continue at the University of North Carolina. Currently, the bank consists of over 80,000 events on forty international actors drawn from the Middle East subsystem and spanning the years 1945 to 1970.¹¹ In addition, the data collection continues to expand to gather international events prior to 1945 and to update continuously to the present time.

All data for this bank are drawn from publicly available sources and are coded in a manner in which one machine-readable card identifies a single international event. Each event is scaled along a violence dimension by the use of the marker cards from the Thirteen Point Interval Scale.¹² This scale value is then punched and stored on the single data card for future analysis work.

Because the data bank focuses primarily on the area of interest here, the Middle East, and because I participated in the collection, storing, and scaling of these data,¹³ all international events for this research come from the Conflict and Peace Data Bank. However, before I can employ these data, I must outline the initial difficulties

encountered in "making" international events for this bank. Four methodological difficulties occurred:

1. the definition of an international event;
2. the sources for international events;
3. the coding procedure for collecting the data from these sources;
4. the scaling procedure for ordering the intensity of the data.

In the following section, then, I briefly describe each problem and explain the solution that was adopted. In this way, I hope to demonstrate how these solutions improved the reliability of these data for the operationalization of the concepts of the crisis models.¹⁴

Definition of an International Event

In its broadest sense, an international event can be thought of as any overt behavior of international political actors toward each other and/or their environment. However, such a definition leads to a number of difficulties in distinguishing one event from another and in identifying what components are necessary to make an "event" an event. In an attempt to move toward conceptual and operational clarity, Azar and his associates proposed the following definition of an international event:

Any overt input and/or output by an international actor of the type "who does what to whom and when" which may have ramifications for the behavior of an international actor or actors and which is recorded at least once in any publicly available source.¹⁵

In general, this definition closely parallels the definition advanced by Charles McClelland for an event/interaction. However, it is different in one important way. McClelland makes the distinction between "events" and "transactions" and does not collect the latter from his data sources. For McClelland, transactions are those "items of action that have at some point become so numerous, so commonplace,

and so normal to their situation that they are accounted for conventionally in an aggregated form."¹⁶ Azar does not make such a distinction; rather, he contends that changes in the volume and capacity of these routinized events could become "newsworthy" and therefore may be reported and recorded from the data sources. For example, changes in military capabilities, substantial economic growth, and such other items, it is argued, affect the behavior of other states and therefore should be considered as important international activities rather than only as aggregate totals.

Operationally, this definition suggests various components that make an "event" an event. On the face of it, four components of an international event are present: an actor, a target, some activity, and a particular time element. In addition, a fifth component of an international event is indirectly implied by the definition. That is, a component that specifies the conditions and circumstances accompanying each event. This component is called the issue-area. Let me specify more clearly the meaning of each of these components.

- Actor: That political entity which initiates an activity (i.e., who does or says--). An actor can be a nation (or its spokesman), a regional organization, or an international organization.
- Target: That political entity to which an activity is directed (i.e., to whom something is done or said). A target can be a nation-state (or its spokesman), a regional organization, or an international organization.
- Activity: Those actions which are precipitated by clearly identified actors and/or directed toward clearly identified targets.
- Issue-Area: A complimentary category which defines the parameters of the event by elaborating the intensity, the arena, the intermediate participants, and/or topic of the event.

Time: The calendar day on which the source reports the event.¹⁷

Thus, if the international event is to be identified, each of these components must be present at a given time in the data source. According to this rule, then, a discrete event exists only when at least one of the components is different from one event to another. Moreover, with these identifiable components, less confusion results over what constitutes an international event.

The Problem of Data Sources

To operationalize an international event, this conceptualization requires publicly available data and some coding (or collection) routines for transforming these events into machine-readable form. The first problem, the data sources, is logically prior to the data collection and is, in many ways, the most fundamental issue for events data researchers. While the rationale for the use of only publicly available sources has been argued elsewhere,¹⁸ the choice of which publicly available sources is a considerably more compelling question.

Unlike other types of data for examining international behavior (e.g., attribute and transactional data) which are relatively stable from source to source,¹⁹ international events data are usually marked by the lack of systematic stability from one source to the next. For example, several different interpretations of the behavior between two nations may result solely on the basis of differences in data sources. Due to a variety of factors, such as the number of reporters in the field, editorial policies of the sources, differential utilization of news wire services, and the space allotted to international affairs, some events may be reported in some sources and not in others.

As a result, systematic bias may be unintentionally introduced into the research from the data sources chosen. In this light, it becomes imperative for the events data researcher to be prepared to justify his selection of particular source or sources for the collection of his international events data.

To decide on which sources to use (as well as to justify them), the researcher needs sound theoretical and empirical arguments. On the theoretical level, a researcher can justify the choice of certain sources by the kinds of questions that he is interested in investigating and the appropriateness of those sources for monitoring particular kinds of behavior. Perhaps an illustration would be helpful here. If a researcher is interested in a particular kind of behavior in some region of the world (e.g., military coups in Africa, border violations in the Middle East), sources from that part of the world which closely monitor those behaviors would be most appropriate. In this case, the African Recorder, Middle East Journal, and Jerusalem Post and other regional organs might be immediately suggested as useful data sources. In other words, sources that are bound to the region of the world would be particularly appealing. On the other hand, if the researcher is interested in analyzing the whole spectrum of behavior between states (e.g., the cooperation--conflictual continuum between dyads of nations), the researcher would select sources that are most likely to monitor all kinds of behaviors on a global scale. In this case, such sources as the New York Times, London Times, Asian Recorder, and Times of India, among others, immediately come to mind. In this sense, these data sources are likely to be more comprehensive in the reporting of all actions between states.

While good theoretical arguments are necessary for choosing particular sources, just as powerful and compelling arguments for the selection of some sources over other can be made on empirical grounds. If, as I assume, the researcher is interested in obtaining the most economic amount of data with the highest payoff, he will concentrate his collection efforts on the sources that are most productive.²⁰ In order to do this, the researcher must identify which of his theoretically selected sources are most "comprehensive" in international event reporting by means of systematic comparison. Such "comprehensiveness" can be thought of not only by the volume or frequency of events reported but also in terms of the types of content of events reported by a source. That is, some sources may not be powerful in the absolute number of events that they report, but they might report particularly important types of events for a problem under investigation. Of course, the converse of this statement would also hold. Although empirical comparison of sources is a tedious and time-consuming task, it seems the first and foremost step for the international events data researcher to recognize both the advantages and limitations of particular data sources.²¹

With these caveats in mind, the researchers on the Azar project initially selected eight sources that they thought particularly relevant to the Middle East research area. Comparisons were then done among the sources to identify which sources were most "comprehensive" in their reporting. As states above, such "comprehensive" refers both to the volume or frequency of the events reported and to the type or content of the events reported.²²

A number of reasons guided the initial selection of sources. The first and most important reason was the sources were likely to report interactions between many states, including the Middle East region. Secondly, all of the sources were publicly available and required no special access by the researchers. Thirdly, all sources were in English. This condition facilitates the direct coding of the data in that it does not confront the researchers with the numerous translation problems that other researchers sometimes encountered.²³ However, because the sources were in English does not necessarily mean that they represent an American or even Western bias. In fact, the sources selected represent various views of the world. For example, there were four American, two British, one Russian, and one Swiss source. Finally, the sources were selected because they had been used by previous students of international politics as data sources and offered a means to check on the reliability of such sources.

The sources of the data collection were:

- a. New York Times Index
- b. Middle East Journal
- c. New Times: A Weekly Journal of World Affairs
- d. Swiss Review
- e. Deadline Data
- f. World Almanac and Book of Facts
- g. Keesings' Contemporary Archives
- h. Annual Register of World Events

While a detailed account of the comparison experiment is reported elsewhere,²⁴ a brief review of our procedure and general findings is appropriate at this juncture. First of all, all events in

which Egypt and Israel were actors were coded from the eight sources for the years 1955 through 1958. These nations were chosen because they appeared to be the most active in the Middle East actors during these years. This period encompassed the Suez Crisis and the Egyptian-Syrian unification which produced a wide range of inter-nation behavior by these actors.

Before comparing the event coverage among the various sources for the 6152 events that were initially gathered, duplicated events were removed. At the same time, the information on the number of unique sources that reported each duplicated event was retained. As a result, the sources yielded 5176 discrete events with 2905 discrete events for Egypt and 2271 discrete events for Israel. With this information, the sources could now be compared for the frequency with which events were reported in each source as well as the overlap between sources.

Next, all discrete events were scaled with the Thirteen Point Interval Scale (explained below) developed by Azar and his associates. This procedure allowed us to compare the source by the types of events that they tended to report. Thus, we could identify whether particular sources tended to report more conflictual events rather than cooperative events or vice versa.

The results indicate that the New York Times Index and the Middle East Journal report the great majority of events in our eight source sample (see Table 24). In fact, together, these sources report 89.4 per cent of all events over this time span while the other six sources report only 10.6 per cent of all events that were not reported by either of these two sources. The New York Times Index reported

Table 24.--Event Frequencies by Source 1955-1958 (Egypt and Israel).

	Events Reported by <u>NYT Index</u>	Events Reported by <u>MEJ</u>	Events Not Reported by <u>NYT Index</u> or <u>MEJ</u>
1955	608 69.5%	225 25.7%	93 10.6%
1956	1534 74.4%	491 23.8%	207 10.0%
1957	707 64.0%	419 37.9%	118 10.7%
1958	773 68.1%	372 32.8%	131 11.5%
Total	3622 70.0%	1507 29.1%	549 10.6%

Note: The sum of the row percentages will be equal to or greater than 100% since the events reported by the New York Times Index and Middle East Journal include duplicate reporting.

the great bulk of the events (70.3%) while the Middle East Journal reported 29.1 per cent of all events. However, the overlap between these two sources was quite low, only 9.7 per cent. This would lead one to conclude that each source tended to report different events, and both sources are needed for a fuller picture of the behavior between these actors.

When we examine the events from these two principal sources by scale value to test whether any relationship existed between reporting source and type of event, some definite differences exist between the New York Times Index and the Middle East Journal (see Table 25). In general, the New York Times Index tended to report proportionally more standard inter-nation communications--e.g., visits by key decision-makers, requests for international meetings, issuance of joint

Table 25.--Event Frequencies by Scale Values of Violence for Sources
Egypt and Israel, 1955-1958.

	Scale Values			
	1-5	6	7-9	10-13
<u>New York Times Index</u>	441 12.2%	1608 44.4%	1403 38.8%	169 4.7%
<u>Middle East Journal</u>	313 20.8%	538 35.7%	582 38.6%	74 4.9%

communiques, etc.--while the Middle East Journal tended to report proportionally more low interactions--e.g., merger of nation-states, establishment of regional organizations, aid extensions, cooperative agreements, etc. Thus, it seems that each source tended to add events that the other source might miss and that both sources should be used together.

These findings are not incompatible with other studies on the coverage of the New York Times or with other findings on data sources for the Middle East. McClelland and Hoggard find evidence to support the usefulness of the New York Times in at least three separate studies.²⁵ Likewise, Gamson and Modigliani offer compelling evidence that this sole source, the New York Times, is an excellent data base. They report that the New York Times reports as much as 97 per cent of all events when compared with six other data sources, the Chicago Daily Tribune, Christian Science Monitor, London Times, Manchester Guardian, New York Herald Tribune, and Pravda and Izvestia (in combination).²⁶ Table 26 presents these comparisons. In addition, they find high correspondence exists between the New York Times, the Times

Table 26.--Completeness of Seven Daily Newspapers.

	Total Events	Included Events	Percentage
<u>New York Times</u>	36	35	97
<u>New York Herald Tribune</u>	36	33	92
<u>Chicago Daily Tribune</u>	36	29	81
<u>Manchester Guardian</u>	19	15	79
<u>London Times</u>	19	14	74
<u>Christian Science Monitor</u>	36	25	69
<u>Pravda-Izvestia</u>	36	18	50

^aNot coded for April, 1958.

Source: William A. Gamson and Andre Modigliani, Untangling the Cold War (Boston: Little, Brown and Company, 1971), p. 155.

of India (Bombay), and the Manchester Guardian in the reporting of certain types of events, either refractory or conciliatory acts (see Table 27). Thus Gamson and Modigliani feel comfortable in contending that "it seems overwhelmingly clear that the prominence that an article receives in the New York Times is more than a reflection of the personal judgment of the editor of the day. In fact, it reflects with considerable accuracy the prominence that such a story gets in newspapers around the world."²⁷

One final study that bears on our findings is the source comparison by Robert Burrowes.¹⁸ In comparing nine data sources on four Middle Eastern nations, he finds that a French source, Cahiers de l'Orient Contemporain, is by far the most productive data source in terms of event frequency. However, he also finds that the best sources

Table 27.--Correlations Among Monthly Scores of Three Newspapers for Soviet and Western Conciliatory and Refractory Actions^a (N = 12 Months).

	New York Times	Times of India	Manchester Guardian
Refractory Scores Western Action			
Soviet Action			
New York Times		.89	.80
Times of India	.73		.78
Manchester Guardian	.43	.68	
Conciliatory Scores Western Action			
Soviet Action			
New York Times		.90	.85
Times of India	.78		.95
Manchester Guardian	.80	.89	

^aFigures in this table are product moment correlations. Those above the diagonals pertain to Western action; those below the diagonals pertain to Soviet action.

Source: William A. Gamson and Andre Modigliani, Untangling the Cold War (Boston: Little, Brown, and Company, 1971), p. 165.

after the Cahiers are the New York Times Index and the Middle East Journal. Moreover, he argues that if one must rely on English sources (as we choose to do) these two sources in combination are very adequate.²⁹

In general, then, our findings and the findings of other researchers increased our confidence in the sources that we choose and especially in our two main sources, the New York Times Index and the Middle East Journal. Therefore, our collection efforts were concentrated on these two sources; however, we continued to utilize the other sources (as economic resources allowed) as an additional means of enhancing the comprehensiveness of the data base.

Coding International Events

Once the sources were agreed upon, the next problem for the operationalization of the event definition was the selection of a coding format for the collection of discrete international events. This task involved the establishment of definite coding rules and a coding scheme in order that the data are both as complete as possible and manageable for machine analysis and storage. In addition, this problem necessitated the selection and training of persons to code the data from the sources (i.e., coders). Here again a more detailed account of the coding format, the coding rules, and the selection of coders can be found elsewhere.³⁰ Only an abbreviated description of technique is presented here.

For the Conflict and Peace Data Bank, the basic coding format for each international event consists of the single Hollerith card. Each card represents a discrete event with specific spaces allotted

for the five event components. These components were arrayed in the following way on the card:

1-2	year	}	Time
3-4	month		
5-6	day		
7-9	ACTOR		
10-12	TARGET		
15-28	ACTIVITY		
35-80	ISSUE-AREA		

The first task for the coders is to identify the five components of an event from an often lengthy and wordy piece of text. However, each of these components must be translated in various ways to fit the coding scheme. In the case of the actor, target, and time, these components must be converted to a numerical code that has been adopted (see Appendix A). The other two components, the activity and issue-area, need to be transcribed into a brief word or set of words to match the space allotted by the data card.

Perhaps an illustration of the coding of an event from raw text to the coded format will identify exactly what the task involved.

EXAMPLE:

Text from the Middle East Journal: May 23, 1968,
Egypt loans Syria \$750,000 for economic development.

<u>Actor</u>	<u>Target</u>	<u>Activity</u>	<u>Issue-area</u>	<u>Time</u>
Egypt	Syria	Loan	\$750,000	5/23/68

Coded Format:

680523651652 LOAN

\$750,000 ECONOMIC AID

Source: Edward E. Azar, Conflict and Peace Data Bank: A Codebook,
December, 1971 (Mimeo).

While the coding scheme is rather straightforward, some training and guidance were required to minimize error on the part of the coders. First of all, because considerable motivation was required in a collection procedure that was often tedious and somewhat boring over an extended period of time, coders were selected who expressed an interest in international politics and in the research that we were doing. In this connection, then, most of our coders were political science undergraduate majors and graduate students. Secondly, we trained the coders by familiarizing them with the coding format and giving them a number of "trial" events which were compared with "expert" coders. Thirdly, we employed a constant check on all coders by having one of the researchers cross-check all coded events before they were key-punched on cards.³¹

Needless to say, however, a number of problems were encountered with the coders with our format. The most obvious problem for the coders was the multiple interactions reported in some sources. Since our definitions of an event (with its various components) required discreteness of interactions, such multiple reporting needed to be disaggregated by the coder. This task was at first problematic and required constant checking over an extended time to maintain satisfaction compliance.

Simultaneous with this disaggregation problem was the disambiguation of the components of an event. While the identification of the time, actor, and target (and translation to the appropriate code) was quickly learned by the coders, the selection and translation of the activity and issue-area was a more difficult task. The activity was limited to only one word which fit into the allotted space on the

data card. The usual procedure here was to use the action word that appeared in the raw text of the source. Where this was not possible, a synonym was suggested.

By far the most problematic task for the coders was the issue-area. Here the coders were required to summarize the text into an allotted number of spaces. Only by constant checking of the coders could any sort of consistency with the format result. In addition, the coders were always assisted with passages that were particularly difficult. In general, these procedures reduced the differential and inaccurate coding of the issue-area.

Scaling International Events

As a final step for transforming these data into meaningful units for analysis, all events were scaled along a particular dimension of behavior, in this case, the amount of violence. The reason for the scaling of the events is to be able to distinguish the amount of violence contained or implied in one event as compared with the amount of violence contained or implied in another event. By giving each event a scale value, one can identify the change in the levels of violent behavior between states which may be more informative than simply identifying the changes in the frequency of behavior between states. However, the use of the scaling technique does immediately pose a rather heroic assumption on this enterprise. That assumption is that the scaled value for an event (by an observer) is the same (or nearly the same) as the perceived value that a decisionmaker would place on such an event. In reality, of course, one might raise serious objection to any such contention. However, it may well be

the case that this procedure is the best one can do given the limited information that social scientists have about how decisionmakers perceive reality. Moreover, while I recognize the complexity of this measurement task, I think, at this time, it is a useful way to begin to describe the reality of inter-nation behavior.³²

The basic measuring instrument for this procedure was the Thirteen Point Interval Scale. While the development of the Thirteen Point Interval Scale is fully documented in at least two other places,³³ a brief review of this scale and the persons that were employed in the scaling task is appropriate. The scale itself emerged from a battery of experiments employing the marker cards from several previous scaling instruments.³⁴ Originally 201 markers on types and levels of inter-nation behavior were gathered with the "masking" of 1 statements when necessary.³⁵ From these markers, five judges (two professors and three graduate students of international politics) reduced these 201 categories into thirteen classes of inter-nation activities. With these thirteen classes of behavior, new judges (students in an advanced course in international politics) were recruited to choose the typical event in each of these thirteen general classes. These judges designated sixty-two events as typical of the thirteen classes.

With these sixty-two events which typify the thirteen categories, the next task was to identify the most typical event in each class. This most typical event in each class would become the marker-event for that class; whereas, the remaining ones would serve the purpose of further identifying each class of events (see Appendix B). To carry out this task, additional students (persons who had not

previously participated in these experiments) were recruited. They were instructed to rank-order the sixty-two cards, divide them into thirteen classes from least violent to most violent events, and then identify the most typical event in each class.

Within each class, the event which received the highest composite typicality score was designated as the "marker-point" for that class. The list of markers was:

1. Nations A and B merge to form a new nation-state.
2. Nations A and B establish a regional organization among themselves.
3. Nation A extends economic aid to Nation B.
4. Nations A and B conclude a friendship agreement among themselves.
5. Nation A receives support for its internal and/or external policies.
6. Nations A and B communicate regarding issues of mutual concern.
7. Nation A experiences limited political difficulties.
8. Nation A makes a protest directed against Nation B.
9. Nation A increases its military capabilities.
10. Nation A encounters domestic politico-military violence.
11. Nation A initiates subversion in Nation B.
12. Nations A and B engage in limited war activities.
13. Nation A engages in an all-out war against Nation B.

Finally, the internal widths of the Thirteen Point Scale were determined through the technique of paired comparisons. The use of this technique involves the following steps: (1) the formation of all possible distinct pairs of stimuli (for example, if n is the number of

stimuli, then the numbers of pairs would be $n(n-1)/2$; (2) the selection by a subject of the event in the pair which expresses or implies more violence; (3) the conversion of the proportion matrix derived from averaging the violence judgments for all subjects to interval scale values.³⁶

Fifty-two students at Michigan State University carried out this task by selecting between each of the seventy-eight pairs of markers. The results of this experiment are given in Table 28. Moreover by correlating the scale widths resulting from the paired comparison technique with the original rank-ordering task, a correlation of .98 was obtained. Therefore, we concluded that the scale approximated an internal measuring instrument and decided to treat the markers as such.

With the scale formulated, the next problem was the selection of the "best" judges (i.e., those judges who had the highest inter-judge level of agreement and who also had the highest correlation with the consensus ranking of the "experts").³⁷ After a series of experiments with student scalers with different background characteristics (e.g., educational level, sex, country of origin, undergraduate major), the general findings was that U. S. male citizens who were seniors and political science majors were the best judges by the criteria that were established.³⁸

In addition, experiments were run to see if two other dimensions would facilitate improved scaling results. These two dimensions were called "sufficient environment" for scaling and "sufficient context" for scaling events. The "sufficient environment" refers to those scalers that were most familiar with the historical events, their

Table 28.--Paired Comparison Scale Values.

13-Point Ordering	Paired Comparison Values
1	.000
2	.405
3	.957
4	1.321
5	1.623
6	2.331
7	2.774
8	3.011
9	3.247
10	3.741
11	4.203
12	4.828
13	5.536

Source: Edward E. Azar, Stanley H. Cohen, Thomas O. Jukam, and James M. McCormick, "Making and Measuring the International Event as a Unit of Analysis," in Edward E. Azar, Richard A. Brody, and Charles A. McClelland (eds.), International Events Interaction Analysis: Some Research Considerations (Beverly Hills: Sage Publications Inc., 1972), p. 67. By permission of the Publisher, Sage Publications, Inc.

meaning, and the environment from where they were derived might perform the scaling task more reliably than those unfamiliar with the environment. A test of this proposition with an experimental group who were given a short course on the history of the region and the behavior between actors (states) and a control group who were given no such information showed no significant differences in the scaling ability of the two groups.³⁹ The conclusion, therefore, was that scalers unfamiliar with the history of the events they are scaling can perform just as reliably as those without such knowledge.

The "sufficient context" for scaling really questions whether the coded format of the event and the full textual account of the event (from the original source) produce significant differences in the scaling reliability of the scalers. Here again a controlled experiment was done between groups differing only in whether the events were in coded format or in full contextual form.⁴⁰ No significant differences were reported. Thus, it would appear that the coded format does not disrupt the scaling task.

Operationalization of Concepts

Data Collected

Using the methods just described, the directed dyadic interactions (events) were collected and scaled for the principal participants for each crisis.

Suez Crisis

Egypt	→	Israel
Egypt	→	Britain
Egypt	→	France
Israel	→	Egypt
France	→	Egypt
Britain	→	Egypt

Six Day War Crisis

Israel	→	Egypt
Israel	→	Syria
Israel	→	Jordan
Egypt	→	Israel
Syria	→	Israel
Jordan	→	Israel

In all, the number of events collected and scaled for analysis was 1,578 interactions.

To operationalize the three basic concepts of the two crisis models--(1) the past behavior of a state toward an opposing state; (2) the received behavior of a state from an opposing state; and (3) the response behavior of a state--into testable variables, some time dimension will be used to separate one concept from another and some summary measure developed for the frequency and intensity of behavior in each of the time cuts chosen. Put another way, the time period is used to distinguish the concepts from one another while the "behavior score" will identify the mean level of violence directed by one state toward another state for each concept. In a sense, then, the particular time dimension will make the concept dynamic over time. That is, the response behavior of a state at time *t* will become the past

behavior at time $t+1$ for a state while the opposed behavior at t will be the response of the other state at $t-1$.

The question of the particular time period is the first concern. To my knowledge, no theory exists which relates time to the intensity of conflict behavior. Moreover, the usual increment of time--days, weeks, or months--may not be particularly applicable to a crisis situation. What is really needed is some means of accessing "diplomatic time" during crisis situations. However, since little knowledge exists on exactly what that time dimension should be, a research design decision was made in favor of some increment of ordinary time. In this regard, the one week period is used in this study to analyze the behavior between various dyads. This time dimension was chosen because it allowed me sufficient data to meaningfully examine and assess the hypothesized relationship and has been used previously as one way to analyze inter-nation behavior.

Using this time dimension, one can now compute a violence score (VS) for all the pairs of dyads over the two crises. This score is computed by summing the scaled intensity of all the events over a one week period and dividing by the total number (frequency) of events. The results yield a mean intensity level of violence or violence score (VS) for one state toward another during the particular time period. Symbolically, the violence score (VS) can be represented as follows:

$$VS = \frac{\sum_{i=1}^n SE}{n} \quad t$$

Where S_e is scaled value of each event, N is the total number of events, and t is the particular time period (one week). Using this measure, the violence score by week for the dyads identified above were computed.

Let me make clear the operationalization of the concepts by these violence scores and how they will be used in the analysis. The sample in Table 29 will serve to further clarify this operationalization. Consider week two. The violence score for each state during week one is the variable that operationalizes the concept of "past behavior" of that state in week two while the violence score of the opponent in week two is the variable that operationalizes the concept of "received behavior" from the opposing state. In this case, the third concept, the response behavior of the state, is the violence score in week two by the first state. Thus one can easily witness how critically important the time element is for the separation of the concepts from one another.

Another concept outlined earlier was the notion of crisis phases. Each crisis will be divided into two basis phases, the less intense and the more intense phase. Such specification could be done based upon obvious thresholds in the histories of crisis situations. However, a more systematic way to specify such phases (and the one also employed here) is to use some indicator of change in crisis behavior. In this case, I will use the severity of behavioral interactions between the parties. The less intense phase of a crisis will be operationalized by the period in the crisis in which low mean hostilities occurred. The more intense phase of the crisis will be operationalized by relatively high mean hostilities between the

Table 29.--Hypothetical Example for Operationalization of Major Concepts by Violence Scores.

Data:

Violence Scores of State A \rightarrow State B for Three Week Period

Week 1	7
Week 2	8
Week 3	9

Violence Scores of State B \rightarrow State A for Three Week Period

Week 1	7
Week 2	8
Week 3	8.5

Operationalization:

Past Behavior of A \rightarrow B	Received Behavior of B \rightarrow A	Response Behavior of A \rightarrow B
Week 2 7	8	8
Week 3 8	8.5	9

Past Behavior of B \rightarrow A	Received Behavior of A \rightarrow B	Response Behavior B \rightarrow A
Week 2 7	8	8
Week 3 8	9	8.5

parties. Moreover, using this technique, the crisis behavior can be investigated by the use of the previously discussed models.

Regression Analysis

The technique for evaluating the two crisis models with events data is linear least squares regression analysis. Regression analysis is a statistical technique which has two primary functions:

- A. To estimate or predict one variable given one or more other variables.
- B. To obtain a causal explanation of one variable as a function of one or other variables.⁴¹

In other words, this technique assesses the predictive power of an independent variable or set of independent variables (the regressors) of a dependent variable (the regressand). The closer the regressors estimate the regressand, the more powerful is the particular model.

The particular type of regression analysis employed here is linear least squares. These two criteria simply mean that an attempt is made to fit the data to a regression equation which is a straight line and which has the property that the sum of the squares of the deviation from the actual values of the dependent variable from the predicted values is at a minimum.⁴² This first order linear regression equation is traditionally represented in the following way:

$$Y = a + bx + e$$

Where Y is the observed value of the dependent variable, a is the estimate of the y- intercept (where the regression line crosses the y-axis), b is the slope of the regression line, x is the observed independent variable, and e is an error term.

In using this equation, the goal is to make the error terms (or residuals) as small and as irregular as possible--small because the residuals indicate the remainder of the variance that is unexplained and irregular because any pattern of regularity in the residuals suggests some systematic tendency that has not been taken into account by the equation. If this is done, one has obtained the "best" fit of the data and increases the confidence of the equation for predicting the hypothesized relationship. Moreover, the regression coefficients are capable of informing one about the impact of the independent variable upon the dependent variable.

As applied to this particular study, the regression technique is most appropriate. That is, the two models are concerned with the prediction of a state's response behavior (the dependent variable) from either its own past behavior (one independent variable) or the behavior received from the opposing state (one independent variable). In my operationalization of the organizational process model, the past behavior of a state is regressed on the response behavior of a state while in the event/interaction model, the received behavior is regressed on the response behavior of the state. In the case of the combined model, both the past behavior and received behavior are regressed on the response behavior of the state.

To do such a task, all data must be arranged as in the form of Table 29 with the violence scores operationalizing the various concepts over time. As one can readily imagine, such an arrangement allows for ease of analysis. All that needs to be done then is that each set of observations be examined through the use of a least squares regression program.

However, before one can proceed to this task, some mention needs to be made about the important assumptions that underlie regression analysis, particularly about the level of measurement of the data and the statistical properties of such data. In this connection, the obvious failure of the data to meet at least one of the assumptions requires some additional transformation in the original data set in order to carry out the analysis.

Three important assumptions of regression analysis are:

- a. interval measurement of the variables⁴³
- b. normal sampling distribution of each variables
- c. mutual independence of the independent variables from one another.⁴⁴

While the data in this study seems to meet the first two assumptions (i.e., an interval measuring instrument is used and normality is expected), the third assumption is considerably more problematic for this study. This assumption really encompasses two major problems in regression analysis, the problems of multicollinearity and autocorrelation.

Multicollinearity refers to the condition when two or more independent variables are highly correlated. In regression, this condition makes reliable inferences about the relative contribution of each variable in the determination of the dependent variable difficult. Moreover, as the correlation between independent variables approaches unity, it becomes impossible to distinguish one variable from the other. Blalock states the problem more carefully:

. . . whenever the correlation between two or more independent variables is high, the sampling error of the partial slopes and

partial correlations will be quite large. As a result there will be a number of different combination of regression coefficients, and hence partial correlations, which give almost equally good fittings to the empirical data. In any given case the method of least squares will usually yield unique solutions, but with slight modifications of the magnitude that could easily be due to sampling or measurement error, one might obtain estimates which differ considerably from the original set.⁴⁵

The standard rule-of-thumb for concern with this multicollinearity problem is a correlation of between .6 and .7 or higher between independent variables. However, some scholars suggest that even a higher level of intercorrelation is tolerable depending upon the particular question under consideration. However, there clearly is some upper bound to the tolerable limit of intercorrelations. For example, Tufte is particularly critical of two separate studies in comparative politics where correlations of .89 and .83 existed between two sets of independent variables.⁴⁶ Moreover, he argues that such high intercorrelations undermine any inferences about the separate impact of the variables.

In addition, Tufte reminds us that high intercorrelations are not the only way to recognize this problem of multicollinearity. He points to two other indicators: (1) sizeable multiple correlations for overall regression, but with no particular regression coefficient reaching significance; and (2) large changes in the values of the regression coefficients when new variables are added to the regression.⁴⁷

What these observations imply for this study is simply that in using the combined crisis model, and applying multiple regression analysis, the problem of multicollinearity needs to be recognized and assessed in analyzing the data. Moreover, this multicollinearity

question may be particularly salient when attempting to distinguish the two models. However, further elaboration of this problem must await the actual data analysis.

A more immediate problem for this study (and one which must be dealt with before any meaningful analysis) is the inability of the data to satisfy the independence of observation assumption that correlation and regression techniques require. This is the problem of autocorrelation. Autocorrelation occurs in all time series analyses by the very fact that the observations are not independent of one another over time. As a result, any time series analysis must adopt procedures to correct for this data problem.

While the analyst can employ several different transformation strategies to compensate for this problem,⁴⁸ two strategies are particularly well-known and will be used in this analysis. The first strategy is the first order difference scores. A first order difference score is calculated by subtracting the previous observation from the current observation at each data point. The resulting score represents the magnitude and direction of change in the observation. These first order differences are then not expected to be correlated with one another. The second strategy to detrend the data is to regress the dependent variable against time and use the independent variables in the regression with the residuals of the time regression.

With these transformations, the data are ready for empirical analysis. The evaluation of the models will principally utilize F statistics, beta weights, and coefficients of determination as tests of the predictive power of each model separately and the combined

model. The next chapter then focuses on the actual data analysis following the procedure outlined above.

FOOTNOTES--CHAPTER IV

¹Rudolph J. Rummel, "Dimensions of Conflict Behavior Within and Between Nations," General Systems, VIII (1963), 1-50; Raymond Tanter, "Dimensions of Conflict Within and Between Nations, 1958-1960," Journal of Conflict Resolution, X (March, 1966), 41-64; and Ivo K. Fierabend and Rosalind L. Fierabend, "Aggressive Behaviors Within Politics, 1948-1962: A Cross-National Study," Journal of Conflict Resolution, X (September, 1966), 249-271.

²See Edward E. Azar, "Analysis of International Events," Peace Research Reviews, IV, 1 (November, 1970), 1 for a discussion of the recent increase in events data use.

³Barbara Fitzsimmons, Gary Hoggard, Charles McClelland, Wayne Martin, and Robert Young, "World Event/Interaction Survey Handbook and Codebook," University of Southern California, January, 1969, p. 1 (mimeo).

⁴Ibid.

⁵Ibid.

⁶Charles A. McClelland and Gary D. Hoggard, "Conflict Patterns in the Interactions Among Nations," in James N. Rosenau (ed.), International Politics and Foreign Policy (New York: The Free Press, 1969), p. 713.

⁷Fitzsimmons, et al., op. cit., p. 4.

⁸See the section on "the problem of data sources" below, pp. 8-19.

⁹See Charles A. McClelland and Robert A. Young, "The Flow of International Events July--December, 1969," University of Southern California, January, 1970 (mimeo), and Gary D. Hoggard, "World Event/Interaction Survey Codebook," University of Southern California, February, 1969 (mimeo).

¹⁰Ibid.

¹¹While I realize that Azar has recently expanded his collection efforts back toward 1900, it is still fair to say that the bulk of the data for his bank consists of the years 1945 to 1970. See Edward E. Azar, Conflict and Peace Data Bank: A Codebook (Chapel Hill: University of North Carolina, December, 1971).

¹²Edward E. Azar, Stanley H. Cohen, Thomas O. Jukam, and James M. McCormick, "Making and Measuring the International Event as a Unit of Analysis," in Vincent Davis (ed.), Sage Professional Papers in International Studies, Vol. 02-001, 1972a.

¹³I was directly involved in the early stages of the research project as it started under the auspices of the Cooperation/ Conflict Research Group (CCRG) at Michigan State University by a grant from the U.S. Air Office of Scientific Research.

¹⁴Kerlinger argues that a fundamental purpose of a research design is to control variance. In this connection, the considerable effort devoted to the problem of reliable international events has such a purpose. See Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart, and Winston, Inc., 1964), pp. 275-276.

¹⁵Azar et al., 1972a.

¹⁶McClelland and Hoggard, op. cit., 1969, p. 713.

¹⁷Azar et al., op. cit., 1972a.

¹⁸Patrick J. McGowan treats this question in his "The Unit-of-Analysis Problem in the Comparative Study of Foreign Policy" (a paper presented at the Michigan State University Events Data Conference, April, 1971), p. 11 (mimeo).

¹⁹The stability of these sources may be a function of the origin of the data (i.e., ultimately all aggregate data are derived from government publications or a single primary source). However, even with these data, errors are possible. For instance, John Mueller notes such a problem with aggregate data by arguing in a way that is similar to the contention of this section: "One can only seek to minimize its [error] impact by consulting a variety of sources of information, by quizzing impartial area specialist for their estimates of accuracy, and by disclosing possible sources of bias when reporting the results. See John E. Mueller, Approaches to Measurement in International Relations (New York: Appleton-Century-Crofts, 1969), p. 177.

²⁰Gary Hoggard has argued that a need for multiple sources exists in order to obtain "as much interaction data as possible" (p. 31). While such a position is rather noble, there are, of course, definite limits on economic resources to do such a task and the theoretical payoffs of such additional research efforts are not convincing. Moreover, the need to limit the number of sources (after comparison) seems entirely practical. See Hoggard's "Differential Source Coverage and the Analysis of International Interaction Data," University of Southern California, January, 1970 (mimeo).

²¹An early recognition of this need for empirical comparisons was made by Robert Burrowes. He stated that ". . . the best test of the adequacy of any particular source is a systematic comparison with a number of other sources" (p. 11). See Robert Burrowes and Bert Spector, "Conflict and Cooperation Within and Among Nations: Enumerative Profiles of Syria, Jordan, and the United Arab Republic, January 1965 to May 1967" (a paper presented at the Annual Meeting of the International Studies Association, April 2-4, 1970, mimeo).

²²The type or content of an event refers to some dimension of international behavior that the event may identify. For example, an event may be high in conflict and low in cooperation or high in cooperation and low in conflict. The precise dimension that is used to analyze the events is the choice of the researcher. In the case of this study, the amount or level of violence is the dimension that marks the type or content of an event.

²³In another context, Robert E. Ward (ed.), Studying Politics Abroad (Boston: Little, Brown and Company, 1964) discusses the problem of language and back translation in doing cross-national research.

²⁴Edward E. Azar, Stanley H. Cohen, Thomas O. Jukam, and James M. McCormick, "The Problem of Source Coverage in the Use of International Events Data," International Studies Quarterly, XVI, 3 (September 1972b), 373-388.

²⁵McClelland and Hoggard, op. cit., 1969; Gary D. Hoggard, "Comparison of Reporting for the New York Times Index, Asian Recorder, and Deadline Data--Chinese Interaction, January through October, 1962," University of Southern California, June, 1969; and Hoggard, op. cit., 1970.

²⁶William A. Gamson and Andre Modigliani, Untangling the Cold War (Boston: Little, Brown, and Company, 1971), pp. 154-155.

²⁷Ibid., p. 159.

²⁸Robert Burrowes, Douglas Muzzio, and Bert Spector, "Mirror, Mirror, on the Wall . . . : A Source Comparison Study of Inter-Nation Event Data" (a paper presented at the Annual Meeting of the International Studies Association, San Juan, Puerto Rico, March, 1971, mimeo).

²⁹Ibid., p. 8.

³⁰Azar et al., op. cit., 1972a.

³¹This task was performed by this writer for the first nine months of the data collection procedure. Thus, I had first-hand experience with the many problems that arose.

³²Azar provides at least a partial rationale for this enterprise. He writes: "We code events and measure their violence content with the 13-point interval scale. Although we realize that participants to a conflict situation do not use such an objective instrument, we maintain that they employ an implicit (or possibly explicit) scale which ranks signals by their violence content." Azar, op. cit., 1970, p. 83.

³³Ibid., pp. 17-28 and Azar et al., op. cit., 1972a.

³⁴Most of the original markers were taken from the following scaling instruments:

- a. Richman's "Scale of Events along the Conflict-Cooperation Continuum";
- b. Moses, Brody, Holsti, Kadane, and Milstein's "Inter-nation Action Scale";
- c. Sloan's "Cooperation--Integration Continuum";
- d. McClelland's twenty-two categories of activity.

³⁵"Masking" involves removing the actor/target names and any references to real world situations in the event statements. Instead, nondescript labels are substituted for such real world references. For example, instead of Egypt and Israel, nations A and B were used.

³⁶W. S. Torgerson, Theory and Methods of Scaling (New York: John Wiley, 1958), pp. 159-204.

³⁷The "experts" consisted of four graduate students and two professors of international politics that were associated with the research project.

³⁸For a summary of the experiments, see Azar et al., op. cit., 1972a.

³⁹Ibid.

⁴⁰Ibid.

⁴¹Herman Wold and Lars Jureen, Demand Analysis (New York: John Wiley, 1953), p. 30 (emphasis in original).

⁴²Hubert M. Blalock, Jr., Social Statistics (New York: McGraw-Hill, 1960), pp. 280-281.

⁴³While this has been an important assumption of traditional work in regression analysis, Hubert Blalock argues that there may be occasions to move away from this particular assumption. See his Causal Inferences in Nonexperimental Research (Chapel Hill: University of North Carolina Press, 1964), pp. 34-35.

⁴⁴Blalock, op. cit., 1960, pp. 278-279.

⁴⁵Hubert M. Blalock, Jr., "Correlated Independent Variables: The Problem of Multicollinearity," Social Forces, LXII (December, 1963), 233.

⁴⁶Edward R. Tufte, "Improving Data Analysis in Political Science," World Politics, XXI, 4 (July, 1969), 654. See also Hugh D. Forbes and Edward R. Tufte, "A Note of Caution in Causal Modelling," American Political Science Review, LXII, 4 (December, 1968), 1258-1264.

⁴⁷Tufte, op. cit., p. 654.

⁴⁸Paul Smoker in his, "A Time Series Analysis of Sino-Indian Relations," Journal of Conflict Resolution, XIII, 2 (June, 1969), 172-191, suggests numerous techniques for detrending time-bound data.

CHAPTER V

DATA ANALYSIS OF THE CRISIS MODELS

In this chapter, the organizational process and the event/interaction models are evaluated in the context of the Suez and the Six Day War Crisis. The structure of the discussion will be first to examine the data for autocorrelation and multicollinearity across both crises. Secondly, I shall separately report the data results for each crisis in the following way: (1) by evaluating the models across the entire crisis period and in the phases; and (2) by evaluating the impact of a combined additive model across the entire period and in the phases. Thirdly, I shall jointly compare the findings for the two crises. Finally, I shall examine whether McClelland's "routinization" hypothesis of crisis behavior is supported.

Examining the Data for Both Crises

Considerable effort has already been made to ready the data for analysis. As indicated in Chapter IV, however, successful detrending of the data is important to any analysis. Two techniques were employed: (1) using the residuals of the dependent variable after regressing against time; and (2) using the first differences of the violence scores. While these techniques are widely-known

detrending techniques, they do not automatically insure the removal of autocorrelation in the data.¹ Therefore, in order to check on the success of the detrending techniques, the runs test and the Durbin-Watson statistic are examined for the two data sets.²

In general, the detrending techniques are highly successful. This is especially true for the unlagged data which is most heavily relied upon in the analyses. For these data, using the residuals of the time regression dyads, only three demonstrate significant autocorrelation in the Suez Crisis and the Six Day War Crisis. This result emerges from 108 regression runs for the twelve dyads and the three models under investigation--the organizational process, the event/interaction, and the combined additive models--across each complete crisis and the more intense and less intense phases of each crisis. With the first difference method for these same dyads, seventeen dyads still contain significant autocorrelation. Thus the first difference method is less successful than the time detrending method. As one can see, however, these significant autocorrelated dyads are rather minimal. Moreover, only in one case of the twenty significant dyads is their overlap for both detrending techniques. Consequently for this case, the results are somewhat difficult to interpret.³ Yet it seems safe to conclude that such slight autocorrelation will not affect the general interpretation of the results. Nonetheless, in order to be as clear as possible, when significant results occur with the autocorrelated dyads, they will be so noted. Caution will then be advised in relying on these results.

For the lagged data, the techniques do not do quite as well as for the unlagged data.⁴ For the residuals technique, twenty dyads

remain autocorrelated while for the first difference technique, nine of the dyads remain autocorrelated. These results, of course, are across 216 regression runs with the three models, the three period of the crises, and the twelve dyads. While the lagged data, as we noted, are relied upon less than the unlagged data in the analyses, autocorrelated results will nevertheless be noted, and again caution will be advised in interpreting the findings in such instances.

Before I proceed with the results, one further inspection of the data is necessary. I must be certain that multicollinearity is not a problem and that the multivariate analyses can be meaningfully employed. Thus an inspection of the intercorrelations among the independent variables is reported.

Inspecting the intercorrelations between past behavior and received behavior for the residuals of time data for the Suez Crisis, multicollinearity does not seem to be a problem. This fact holds true for any dyad, for any time period (either the complete crisis or the crisis phases), and for any data set (either unlagged or lagged). The highest intercorrelation for past behavior and received behavior is .40 for Egypt and Israel in the more intense period of the Suez Crisis. Most intercorrelations are considerably less with most of the .20 and .30 variety. In short, multicollinearity does not seem to be a problem for this first detrending technique with the Suez data.

Turning to the second detrending technique for the Suez data, a similar conclusion is warranted for the first difference scores. The intercorrelations here are generally lower between past and received behavior than for the first technique. In fact, the highest intercorrelation reaches only .32 between France and Egypt in the more

intense phase of the Suez Crisis. Moreover, most intercorrelations between these variables are only of the .25 magnitude. Here, too, it seems safe to conclude that for this approach multicollinearity is not a problem.

Examining the intercorrelations between past behavior and received behavior for the first data set on the Six Day War Crisis, one finds that multicollinearity is generally not a difficulty for any dyad of nations, for any time period, or for any data set. Only in the less intense phase of the crisis for Syria and Israel does the intercorrelation between past behavior and received behavior reach a level where some concern is warranted. In this instance, the intercorrelation is .79. The next highest intercorrelation is .69 for Israel and Syria across the entire Six Day War period. In these instances, some caution will be necessary if particularly strong results occur for these other intercorrelations between past behavior and received behavior reach above .53. Thus these intercorrelations do not seem large enough to justify concerns over multicollinearity in the multivariate analyses.

For the first difference data set for the Six Day War Crisis, the highest intercorrelation between past behavior and received behavior is .61 for Jordan to Israel in the less intense crisis phase. Similarly, for Syria to Israel and for Egypt to Israel with the lagged data in the less intense phase, the intercorrelations are .60. However, the rest of the intercorrelations for the lagged and unlagged data, for the complete crisis period, and for the phases of the crisis are considerably lower (.27 to .47). Thus, here again, while three of the

intercorrelations are higher than the rest, they are easily within the general tolerance limits for performing multivariate analyses.

Findings for the Suez Crisis

I can now proceed to the analysis of the crisis models. In the first set of results, I shall examine whether either model does particularly well across the entire period in that both are hypothesized as general explanations for the crisis interaction process. The beta weights from the regression analyses will be used as the basic indicator of the relative strength of each model.⁵ The beta weight, of course, is a measure which indicates how much change in the dependent variable is produced by a standardized change in the independent variable when other variables are controlled. The greater the magnitude of the beta weight of a variable, the more important that variable is in affecting the dependent variable. In the case at hand, high beta weights for past behavior (PASTB) would indicate support for the organizational process model while high beta weights for received behavior (RECB) would indicate support for the event/interaction model.

While the models as specified point only to the magnitude of these variables, a word necessarily needs to be given to the direction of the beta weights (whether positive or negative). A negative beta weight implies that for every one unit change in PASTB or RECB, the response behavior was decreased by the magnitude of the beta weight over the length of the crisis while a positive beta weight indicates that for every one unit change in either PASTB or RECB, the response behavior is increased by the magnitude of the beta weight over the time period examined. The number of positive and negative beta

weights would, of course, generally be a function of dyadic behavior. However, it is important to note that the signs of the beta weights could also be a result of the weakness of the detrending technique. If the detrending technique is not too successful, a greater number of negative beta weights may result. This would likely mean that the time variable is still fairly "dominant" in the equation and has reversed the sign of the beta weight.⁶ In our case, the use of the two detrending techniques is particularly useful to compare the magnitude as well as the signs of the beta weights. In general, more credence should be placed in the results where the signs are similar across the techniques or where the detrending techniques shows the lowest amount of autocorrelation in the residuals. This issue cannot be resolved presently and therefore will be an important subject throughout the presentation of the results.

Evaluation of the Models Across the Complete Crisis Period

Across the entire Suez period, we find rather mixed results for the models with the evidence slightly favoring the organizational process model. The beta weights are of modest strength, but the total variance explained by either model is quite low.

Specifically, the results with the residuals of time data (hereafter the time data set) demonstrate some support for the event/interaction model. Four of the six dyads of directed behavior between the Suez participants have higher beta weights for RECB than for PASTB. These results are portrayed in Table 30. The greatest magnitude of the beta weights, however, occurs for the directed behavior of Israel to Egypt (.41) for the organizational model. In addition, for two of

Table 30.--Response Behavior Predicted From Past Behavior and Received Behavior: Unlagged Suez Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	.08	.26	72
IS to EG	.41	.09	72
EG to GB	.15	.16	32
GB to EG	.19	.37	32
EG to FR	.21	-.03	32
FR to EG	.02	-.06	32
<u>First Difference Data</u>			
EG to IS	-.24	.10	71
IS to EG	-.29	-.23	71
EG to GB	-.33	.27	31
GB to EG	.17	.29	31
EG to FR	.24	.17	31
FR to EG	.15	-.02	31

*The regression analyses were done separately but they are presented together here for ease of comparison.

the dyads (Egypt to Great Britain and France to Egypt), the differences between the beta weights of PASTB and RECB are very slight and hardly distinguishable. Thus the apparent support for the event/interaction model is somewhat reduced.

With the first difference data, also portrayed in Table 30, the beta weights are stronger and in the direction of the organizational model for five of the six dyads. Moreover, here the pattern is more pronounced, and the differences between PASTB and RECB are not as close as with the first data set. Nonetheless, the pattern is by no means solidly in the direction of one model, and one is still left with trying to separate these two models.

In an attempt to do this and as a means of examining whether some lag in the independent variable would improve the strength of the predicted relationships, a one week time lag was built into the data. While the exact time lag is somewhat arbitrary, it is nevertheless quite reasonable to expect that the decisionmakers of a nation would take some time to evaluate the situation at hand, especially in a crisis setting. In this sense, a time lag seems appropriate, and a one week time period seems useful.⁷

Introducing this lag for evaluating the models, one finds that the magnitude of the beta weights is considerably strengthened in favor of the organizational process one. In ten of the twelve cases for the lagged data sets, as portrayed in Table 31, the organizational model dominates. With the lagged data, however, the direction of the beta weights are generally negative. A negative beta weight for PASTB implies that a nation is following its previous behavior, but that the intensity of its behavior is decreasing over time. Such negative beta

Table 31.--Response Behavior Predicted From Past Behavior and Received Behavior: Lagged Suez Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	-.23	-.05	71
IS to EG	.20	.12	71
EG to GB	-.14	.24	31
GB to EG	-.18	.01	31
EG to FR	-.19	.11	31
FR to EG	-.37	-.24	31
<u>First Difference Data</u>			
EG to IS	-.33	-.15	70
IS to EG	-.16	.12	70
EG to GB	-.12	.22	30
GB to EG	-.19	.17	30
EG to FR	-.22	.12	30
FR to EG	-.27	.60	30

*See note under Table 30.

weights seem reasonable when one considers that the intensity of behavior in a crisis has risen and then declined. In addition, since the lagged data for the PASTB variable is the behavior of two weeks previous, one would also expect the beta weights to be negative across the crisis.

Turning to the operation of particular dyads for the entire Suez period, the organizational process model does about as well. For the Egypt-Israel dyads, the organizational model is dominant in seven out of the eight cases with the two lagged and unlagged data sets. Only with the unlagged data for the Egypt to Israel behavior is the event/interaction model stronger. However, despite the direction of the findings, the beta weights never reach more than .41 and generally are of the .25 magnitude. Likewise, the amount of variance explained is never more than 17 per cent and generally much lower than this.

For the France-Egypt dyads, the organizational process model is also supported by the data. In seven out of the eight cases with the lagged and unlagged data sets, the beta weights for PASTB are stronger than for RECB.⁸ Here again, however, the absolute magnitude is between .20 and .30 with one reaching .37. Moreover, the amount of variance explained is again low, mainly under 10 per cent. Thus, the direction for these dyads is only weakly toward the organizational process model.

For the dyads of Egypt and Great Britain, the organizational model does not do as well as it did for the other dyads. Here it is only dominant in three of the eight cases with both lagged and unlagged data sets. In fact, for the unlagged time data of Great Britain to Egypt, the beta weight is .37 for RECB indicating some support for

the event/interaction model. For Egypt's behavior toward Great Britain, however, the differences between PASTB and RECB are so slight that it is difficult to ascertain a clear pattern. Overall, then, the results for these nations are not clearly in the direction of either model.

As a more stringent test of the models beyond the use of the beta weights, an F-test of explained and unexplained variance was calculated. Egyptian and Israeli behavior toward one another and British behavior toward Egypt show statistically significant results.⁹ Specifically, the Egypt to Israel dyad reaches the .05 level for the event/interaction model with the unlagged time data and a similar level for the organizational model with the lagged time data. Likewise, Great Britain's behavior to Egypt reaches the .04 level with this time data set for the event/interaction model. With the first difference data, the Egypt to Israel dyad shows significant results for the organizational model with both lagged and unlagged data. Similarly, with the same data, the Israel to Egypt dyad again demonstrates a high F-test statistic for the organizational model. All these dyads are presented in the regular form in Table 32.

While the direction of the results for all the nations involved in the Suez Crisis tend to support the organizational model, only for Egypt and Israel is this support substantial. Such findings have considerable importance for understanding what went on between these dyads during the Suez Crisis as well as have implications for future crisis management in the Middle East. Specifically, the results suggest that Egypt and Israel were not responding very closely to the received behavior but tended to use past policies more often than the

Table 32.--Significant Dyads for Organizational Process and Event/Interaction Models Across Complete Suez Crisis: Unlagged and Lagged Data.

Egypt to Israel (Event/Interaction Model--Unlagged Time Data)				
R ² = .07	Std Error = 1.213 of Est.	N = 72	F-test = 5.1213	Sign = .03
Variable	Reg. Coeff.	Std Error of Coeff.		Computed T
Intercept	-1.917			
Past B	.248	.109		2.263
Egypt to Israel (Organizational Model--Lagged Time Data)				
R ² = .05	Std Error = 1.186 of Est.	N = 71	F-test = 3.950	Sign = .05
Variable	Reg. Coeff.	Std Error of Coeff.		Computed T
Intercept	1.6262			
Past B	-.207	.104		-1.989
Egypt to Israel (Organizational Model--Unlagged First Difference Data)				
R ² = .06	Std Error = 1.817 of Est.	N = 71	F-test = 4.315	Sign = .05
Variable	Reg. Coeff.	Std Error of Coeff.		Computed T
Intercept	7.170	.709		10.113
Past B	-.239	.115		-2.077
Egypt to Israel (Organizational Model--Lagged First Difference Data)				
R ² = .11	Std Error = 1.764 of Est.	N = 70	F-test = 8.536	Sign = .01
Variable	Reg. Coeff.	Std Error of Coeff.		Computed T
Intercept	7.63355	.68836		11.1185
Past B	-.3274	.1121		-2.9217
Israel to Egypt (Organizational Model--Unlagged First Difference Data)				
R ² = .08	Std Error = 1.270 of Est.	N = 71	F-test = 6.117	Sign = .05
Variable	Reg. Coeff.	Std Error of Coeff.		Computed T
Intercept	7.599	.6627		11.467
Past B	-.2684	.1085		-2.4733
Great Britain to Egypt (Event/Interaction Model--Unlagged Time Data)				
R ² = .13	Std Error = .892 of Est.	N = 32	F-test = 4.625	Sign = .03
Variable	Reg. Coeff.	Std Error of Coeff.		Computed T
Intercept	3.1905			
Rec B	-.437	.203		-2.151

received behavior from their opponent as the basis of their future actions. This fact could, of course, tend to lengthen a crisis situation if the symmetry of conflictual behavior is missing because one nation continues a hostile set of policies for a considerable time even though the other nation apparently is changing its hostility level. A similar argument holds for cooperative behavior; however, while this prospect would be more desired, this seems less likely for Egypt and Israel since their behavior reflects little of this cooperative dimension.

More generally, these findings tend to reflect a rather severe perceptual problem among the nations. While a nation seeking particular goals will tend to continue its past policies until it reaches them, the intransigence in its behavior might also be related to lack of trust. That is, a nation might also continue past policies when they do not perceive change in their opponent's behavior or do not trust such apparent changes. Such arguments fit the Egyptian and Israeli case rather well and help us interpret the findings. Given the high level of goal incompatibility between Egypt and Israel, it seems reasonable to suggest that they will distrust any apparent signs of change in the behavior of their traditional rival and particularly during a crisis situation. The safer route for a nation to follow in this situation, then, is to continue to do what it has been doing in the past with only marginal or incremental changes. In this sense, they would follow an organizational model throughout the crisis situation. In short, the findings suggest that the central opponents in a crisis will likely continue to follow their past policies more closely than seeking symmetry with their opponent's behavior.¹⁰

What are the implication of these findings for conflict management? The implication are neither very new nor very surprising, but they do bring with them substantial supporting evidence. Obviously, the goal incompatibility and the perceptual problems between Egypt and Israel need to be altered. Barring changes through direction interactions, however, the findings here suggest the role for "third parties." Nations or organizations that adopt intervention strategies must seek to reduce the apparent intransigence in the policies and the behavior of these two main protagonists in the Middle East. That is, given the severe goal incompatibility, new communication links must be opened through third party action. Finally, of course, these third parties should also seek new unilateral or bilateral initiatives from the parties themselves because only in this way can trust be enhanced and behavior modified. Here, for example, the GRIT strategy, as proposed by Charles Osgood in another context,¹¹ seems a useful point of departure.

Evaluation of the Models in the Crisis Phases

While the organizational process model seemed to be more or less supported across the entire period, this support was rather weak. As I argued in Chapter I, however, each of these models would seemingly operate better in a particular phase of an international crisis than across the entire length of the crisis. The use of such phases could also identify when internal dynamics (the organizational model) in a crisis given way to external dynamics (the event/interaction model). Such arguments may in part account for the weakness of one model or the other across the entire period. Thus, it is to the evaluation of

these hypotheses about the operation of the models in particular phases to which I now turn.

Summarizing rather briefly the basic hypotheses which are more fully outlined in Chapter I, one would expect that the organizational process model should do better in the less intense phase when the image of the opposing nation is not as stereotyped and when the stress on the decisionmakers is not as severe. At this time, then, a nation's behavior would more likely utilize the organizational structure to arrive at policy outcomes. Extending this argument to the data here, past behavior should do particularly well in predicting the future behavior in this situation. As a nation moves into the more intense phase, on the other hand, it would be expected to respond more closely to the opposing nation, and thus the event/interaction model would more likely operate. With the data in this study, then, the received behavior would be the better predictor in the more intense phase of the Suez Crisis.

In order to evaluate these hypotheses, the first task is the separation of the Suez Crisis into two phases, a less intense and a more intense one. The criteria for dividing the crisis into phases were set down in Chapter IV. Basically the criteria dealt with the frequency and intensity of the behavior and obvious thresholds in the history of the crises. Therefore, examining the frequency and intensity level of the Suez situation gives us a good clue to the break-points for the phases (see Tables 3-8 and 14-19). These phases, of course, could be different for different dyads of nations.

This seems to be precisely the case for the Suez situation. For the Egyptian-British and the Egyptian-French dyads, the frequency

and intensity of the crisis generally rose from late July 1956 through the early part of November 1956. This period encompasses the seizure of the Canal and the Sinai War. Moreover, a ceasefire occurs at the end of this period, and some accommodations in terms of troop withdrawals were begun by late November and continued through March 1957. Thus, it seems appropriate to use this division for enumerating the more intense and the less intense phases. Specifically, then, the more intense phase consisted of the period from July 26, 1956 to November 15, 1956 while the less intense phase was from November 16, 1956 through the end of March 1957. In addition, of course, these divisions are consistent with the work of other researchers on the Suez Crisis.¹²

For the Israel and Egypt dyads, the division is different. Inspecting the frequency and intensity of events, one finds that the less intense phase seems to last from late September 1955 until Egypt's nationalization of the Canal in late July 1956. After this action, the frequency and intensity of the activities increased and generally continued through March 1957 when Israeli troop withdrawals are finally negotiated. Thus the less intense phase for these two nations lasts from late September 1955 to about July 23, 1956 while the more intense phase extends from July 24, 1956 through March 1957.

Using these division of the Suez Crisis, we first turn to the examination of the less intense phase. The beta weights for each model in this phase are portrayed in Table 33 for both sets of unlagged data. Examining the dyads for the time data set, only three dyads support the organizational process model (i.e., PASTB has the higher beta weights). For the second (first differences) data set, four of

Table 33.--Response Behavior Predicted From Past Behavior and Received Behavior For Less Intense Phase of Suez Crisis: Unlagged Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	.05	.30	41
IS to EG	.39	.00	41
EG to GB	.17	.12	18
GB to EG	.06	-.57	18
EG to FR	.16	-.41	18
FR to EG	-.18	-.02	18
<u>First Difference Data</u>			
EG to IS	.26	.14	40
IS to EG	-.31	-.25	40
EG to GB	-.30	.18	17
GB to EB	-.20	-.60	17
EG to FR	.29	-.44	17
FR to EG	-.54	-.03	17

*See note under Table 30.

the six dyads are in the predicted direction, and the beta weights are generally much stronger in magnitude than with the time data set.

Building in the one week time lag, the number of correct prediction does not improve with three dyads favoring the organizational model with the time data and only one dyad supporting this model with the first difference data. See Table 34. In general, the hypothesized model does slightly better across all the dyads in this particular phase for the unlagged data.

One will note that the signs of the beta weights for this phase are in some instances negative. For example, the France to Egypt dyad shows a negative beta weight for PASTB while the Great Britain to Egypt dyad shows a strong negative beta weight for RECB. These results are no cause for alarm regarding the interpretation of the findings. In the case of a negative beta weight for PASTB, this means that the nation was relying on its PASTB but was decreasing the intensity of the behavior over the length of the phase. Similarly, a positive beta weight means that a nation was responding rather directly to the received behavior but at a lower intensity than what it received. Moreover, one would expect that the less intense phase of a crisis would be the time most likely to produce negative beta weights since the nations would be seeking to control the situation in order not to produce a more severe crisis which they had either just gone through (as in the case of Suez) or which might occur in the future. As a result, the nations would be rather cautious in their response to another nation, and such cautiousness would be reflected in less hostile behavior.

Table 34.--Response Behavior Predicted From Past Behavior and Received Behavior For Less Intense Phase of Suez Crisis: Lagged Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	-.40	-.10	41
IS to EG	.19	.04	41
EG to GB	-.17	.29	17
GB to EG	-.21	.28	17
EG to FR	-.26	.02	17
FR to EG	-.05	-.08	17
<u>First Difference Data</u>			
EG to IS	-.30	-.24	40
IS to EG	.10	.18	40
EG to GB	-.24	.27	17
GB to EG	-.41	.63	17
EG to FR	-.22	.25	17
FR to EG	-.03	.33	17

*See note under Table 30.

In terms of total variance explained, the models in this phase do slightly better than when the whole crisis period is examined. The highest percentage of the variance explained for the organizational process model is 29 per cent while the event/interaction model explained 40 per cent of the variance for a particular dyad of directed behavior. Nonetheless, the average amount of explained variance is usually considerably lower. In short, on this particular dimension, the models still do not fare very well as explanations of the interaction process in the less intense phase of the Suez Crisis.

While the above discussion was at an aggregate level for all dyads of nations, do certain dyads follow the models better than others? The answer seems to be yes. For the Egypt-Israel dyad, the results support the prediction for both unlagged data sets in three of the four cases. The strength of the beta weights reach about .30 and .40. For the Egypt-Great Britain and the Egypt-France dyads, no strong support exists for the organizational model. Rather, for the unlagged data, the direction seems toward the event/interaction model for both Egypt and Great Britain toward each other. Particularly strong support exists for this model for Great Britain's behavior toward Egypt with the magnitude of the beta weights reaching -.57 and -.60 for the two data sets. Thus, Great Britain, as we noted, seemed to respond to Egypt in a considerably less hostile manner than the hostility that it received. For the Egypt to France dyad, a similar conclusion emerges from the two data sets. Finally, for the France to Egypt dyad, the evidence again supports the organizational model, but it exhibits a negative sign which indicates a reduction in its hostility toward Egypt over the length of this period.

The lagged data results for the dyads are similar to the unlagged results. Once again, the behavior of Egypt and Israel follows the predicted direction with support for the organizational model. For the other dyads, however, little improvement occurs in the predictions for the organizational process model, and in some instances the event/interaction model emerges as even more dominant.

With the F-test, the results for the models are less firm than with the beta weights. For the unlagged data, only the Israel to Egypt dyad reaches the .05 level of significance for the organizational model. For the event/interaction model, only the Great Britain to Egypt dyad reaches this level. These results are given in Table 35. With the lagged data, the results are only marginally strengthened. One more dyad, Egypt to Israel, is significant by this test while the Great Britain to Egypt dyad continues to give strong support to the event/interaction model. These two dyads are portrayed in Table 36.

In sum, what occurs in this less intense phase is support from both Israel and Egypt for the organizational process model while the event/interaction model more or less dominates the Egypt-France-Great Britain interactions. It seems that even in this less intense phase, British, French, and Egyptian behavior toward one another--unlike the behavior of Egypt and Israel toward one another--was based mainly upon the behavior that they received from the other nation and not upon some set of past policies. However, while these nations engaged in mainly reactive policies, the negative signs indicated that they responded at a decreased level of hostility and attempted to keep the situation from erupting into a more severe one. These findings merit further discussion, but I would first like to set down the findings for

Table 35.--Significant Dyads for Organizational Process and Event/
Interaction Models for Less Intense Phase of Suez Crisis:
Unlagged Data.

Israel to Egypt (Organizational Model--Time Data)				
$R^2 = .16$	Std Error = 1.343 of Est.	N = 41	F-test = 7.157	Sign = .01
Variable	Reg. Coeff.	Std. Error of Coeff.		Computed T
Intercept	-3.166			
Past B	.403	.151		2.675

Israel to Egypt (Organizational Model--First Difference Data)				
$R^2 = .09$	Std. Error = 1.404 of Est.	N = 40	F-test = 3.971	Sign = .05
Variable	Reg. Coeff.	Std. Error of Coeff.		Computed T
Intercept	7.712	.879		8.774
Past B	-.285	.143		-1.993

Great Britain to Egypt (Event/Interaction Model--First Difference Data)				
$R^2 = .35$	Std. Error = .772 of Est.	N = 17	F-test = 8.221	Sign = .05
Variable	Reg. Coeff.	Std. Error of Coeff.		Computed T
Intercept	8.501	9.413		9.032
Rec B	.441	.154		-2.867

Great Britain to Egypt (Event/Interaction Model--Time Data)				
$R^2 = .32$	Std. Error = .594 of Est.	N = 18	F-test = 7.536	Sign = .01
Variable	Reg. Coeff.	Std. Error of Coeff.		Computed
Intercept	2.915			
Rec B	-.416	.152		-2.745

Table 36.--Significant Dyads for Organizational Process and Event/
Interaction Models for Less Intense Phase of Suez Crisis:
Lagged Data.

Great Britain to Egypt (Event/Interaction Model--First Difference Data)				
$R^2 = .40$	Std Error = .747 of Est.	N = 17	F-test = 9.836	Sign = .01
Variable	Reg. Coeff.	Std. Error of Coeff.		Computed T
Intercept	2.604	1.053		2.473
Rec B	.557	.178		3.136
Egypt to Israel (Organizational Model--Time Data)				
$R^2 = .16$	Std Error = 1.138 of Est.	N = 41	F-test = 7.550	Sign = .009
Variable	Reg. Coeff.	Std. Error of Coeff.		Computed T
Intercept	3.138			
Past B	-.383	.139		-2.749

the more intense phase so that those results can be compared with the present ones.

In the more intense phase, the event/interaction model is only partially supported across all dyads of nations in the Suez Crisis. Examining both sets of unlagged data in Table 37, one finds that only in half of the cases of directed behavior are the beta weights for RECB stronger than for PASTB. For the lagged data, as portrayed in Table 38 the same proportion occurs. Moreover, the signs of these beta weights in this phase are, as we would expect, generally positive for the unlagged data. This suggests an increase in intensity from either PASTB or RECB toward their opponent.¹³ We would expect such signs due to the fact that the intensity of the hostility during this

Table 37.--Response Behavior Predicted From Past Behavior and Received Behavior For More Intense Phase of Suez Crisis: Unlagged Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	.25	.21	31
IS to EG	.45	.22	31
EG to GB	.04	.41	14
GB to EG	.17	-.19	14
EG to FR	.39	.45	14
FR to EG	.02	-.19	14
<u>First Difference Data</u>			
EG to IS	-.23	.03	31
IS to EG	-.24	-.21	31
EG to GB	-.46	.47	14
GB to EG	-.16	.00	14
EG to FR	-.21	.29	14
FR to EG	.06	.03	14

*See note under Table 30.

Table 38.--Response Behavior Predicted From Past Behavior and Received Behavior For More Intense Phase of Suez Crisis: Lagged Data.*

	Beta Wt. Past B	Beta Wt. Rec. B.	N (Weeks)
<u>Time Data</u>			
EG to IS	-.03	.04	30
IS to EG	.23	.28	30
EG to GB	-.07	.42	14
GB to EG	-.31	-.31	14
EG to FR	-.01	.04	14
FR to EG	-.75	-.63	14
<u>First Difference Data</u>			
EG to IS	-.40	-.02	30
IS to EG	-.29	.05	30
EG to GB	.18	.22	13
GB to EG	-.09	-.28	13
EG to FR	-.19	-.21	13
FR to EG	-.57	-.46	13

*See note under Table 30.

period is ever increasing. However, negative signs do occur quite frequently for the lagged data in this phase. This is explainable given the fact that we are using the behavior in the previous weeks and because some of the dyads have actually reduced the intensity of their behavior over this time span. Nevertheless, these findings, on balance, make it hard to conclude that this event/interaction model is an adequate explanation for the behavior between all these nations in this more intense phase.

Turning to the dyads themselves, some interesting and important findings occur. For the behavior of Egypt and Israel, the beta weights do not support the event/interaction model and instead the organizational model continues to do well for these dyads. In fact, some of the beta weights reach about .30 and .40 in magnitude. For the other nations in the Suez Crisis, the event/interaction model is rather consistently supported. With the unlagged time data, the results for the interactions among Egypt, Great Britain, and France are consistent with the predictions of the event/interaction model. For the first difference data, the model is supported for Egypt to Great Britain and for Egypt to France, but not for the two converse dyads--Great Britain to Egypt¹⁴ and France to Egypt. For the lagged data, moreover, the support for the model is weakened and generally the beta weights are somewhat lower. Only half of the dyads are in the predicted direction. Yet given the rather consistent results with the unlagged data for this model, it seems safe to state that these nations tended to follow this model in this more intense phase of the Suez Crisis.

Despite these results for the beta weights, only one dyad, Israel to Egypt, support the models with the F-test. In this instance,

the organizational model is supported at the .05 level. This lack of strong support for either of these models suggest that while the variables that these models identify were influential during this period, other variables or groups of variables were more salient. This line of reasoning, however, seems to be rather diametrically opposed to much of the conventional wisdom about conflict behavior during high intensity periods. According to many, it is at this very time when action-reaction policies are likely to be most prevalent in inter-nation relations. Yet our data do not show support for this notion even in the highly volatile Middle East.

At this juncture, then, let us summarize the patterns that emerge across the two phases and suggest some general implication for these results. While, as we noted, only a few dyads reach the accepted levels of statistical significance, some important tendencies nevertheless emerge from the direction of the beta weights which need some commentary.¹⁵ In general, the organizational model does well for Israel and Egypt while the event/interaction model does about as well for France, Egypt, and Great Britain. Moreover, these tendencies seem to cut across any particular phase that one examines.

What might explain these findings that are only partially consistent with the predictions? One possible line of reasoning is that nations that have rather high levels of hostilities toward nations tend to follow previous policy formulations and to proceed from there in their future interactions. That is, a nation might be rather distrustful of any perceived changes and thus continue their present policies. In this way, then, the behavior between such nations would more closely follow the organizational model. This certainly seems to

be the case for Israel and Egypt and their behavior during the Suez Crisis. This, of course, does not imply that these nations did not at times immediately respond to the behavior of the other, but what it does say is that usually their past policies more often affected the behavior that they initiated toward their opponent.

For the interactions of the other nations in this crisis-- France, Egypt, and Great Britain--their behavior toward one another more closely paralleled the event/interaction model. Here a plausible explanation also arises. Nations that do not have well-defined policies tend to react more consistently with the received behavior from the other nations. Moreover, they would have little recourse. The only cues to the intentions of the other nations are from the behavior that they received and not from any generalized goals or policies that they have perceived from these nations or that they have formulated toward those nations.

This argument seems to be even more the case for nations abruptly brought into a crisis situation. For France and Great Britain, while they did not have extremely cooperative relations with Egypt prior to July 1956, they certainly did not have the high level of negative affect that had existed between Egypt and Israel for a considerable length of time. In short, it seems that nations that have rather long-standing hostilities tend to act differently in a crisis setting than nations that are thrust into a crisis situation without this kind of historical rivalry. Indeed, future longitudinal research on this question seems worthwhile.

Multivariate Analysis of the Complete Suez Crisis

While some support consistently existed for each model in the data, some might well argue that the two models are easily compatible with one another and that both contribute to the operation of a nation's behavior in a crisis situation. That is, a nation (read the decisionmakers of a nation) employs both its past behavior (the organizational process model) and its received behavior (the event/interaction model) to assess its future action toward that nation. Moreover, a combined additive model therefore would explain the interaction process better than would either of these two models separately.

In order to determine if this combined model would enhance the predictive power, I employ multiple regression analysis using both PASTB and RECB as the independent variables with the two data sets. Here, as before, a lag was also employed with each data set. In essence, then, four sets of results are available for each analysis. All of these results shall be reported when appropriate.

Tables 39 and 40 portray the regression results from this combined model across the entire Suez period for the unlagged data sets. Comparing the beta weights for the variables with the earlier results in Table 30 for each model separately, they are generally about the same magnitude. Likewise, the signs of the beta weights are generally in accord with the earlier analyses. These results hold for all the data sets. Across the dyads, not unexpectedly of course, the PASTB variable is generally stronger and dominates the results as it did when comparing the two models separately. The only exception is the unlagged time data where RECB tends to dominate slightly.

Table 39.--Response Behavior Predicted by Both Past Behavior and Received Behavior for Complete Suez Crisis: Unlagged Time Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	-.03	.27	.07	1.221	2.5531	72
IS to EG	.44	-.08	.18	1.190	7.319 (p<.001)	72
EG to GB	.16	.17	.05	.802	.760	32
GB to EG	.17	-.35	.16	.892	2.792 (p<.08)	32
EG to FR	.22	-.06	.05	1.022	.735	32
FR to EG	.03	-.06	.01	1.192	.068	32

Table 40.--Response Behavior Predicted by Both Past Behavior and Received Behavior for Complete Suez Crisis: Unlagged First Difference Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	-.27	.15	.08	1.809	2.978	71
IS to EG	-.25	.18	.11	1.257	4.336 (p=.05)	71
EG to GB	-.31	.25	.17	.983	2.930	31
GB to EG	-.19	-.31	.12	1.177	1.947	31
EG to FR	.23	-.16	.08	1.246	1.232	31
FR to EG	-.15	-.03	.02	1.684	.335	31

What is important, however, for the full evaluation of this combined model is the additional amount of variance explained¹⁶ and the strength of the F-test. That is, does this combined additive model fit the data better and explain a greater amount of the variance than for the better singular model previously reported? These will be the basic criteria for evaluation.

For the unlagged time data, in only half of the six dyads does the combined model explain more variance than with the models that had been the better predictor separately--either the organizational process or the event/interaction models. Even in these three cases, the improvement in the amount of variance explained is rather slight--usually only 2 or 3 per cent. Again compare Tables 39 and 40 with Table 30. With the first difference data, a similar conclusion holds. While the additive model improves the explained variance in five out of the six cases, the improvement is still very modest.

For the lagged data with the two data sets, the amount of variance explained, a basic criterion of a better model, does not improve from the combined additive model without lag except in the case of France to Egypt. Even with this dyad, however, the improvement is not substantial enough to warrant further discussion of this additive lag model across the Suez Crisis.

The second criterion for evaluating the combined additive model, the F-test, does less well than with the variance criterion. For both data sets, the behavior of Israel to Egypt is the only dyad that is statistically significant for this additive model. With this dyad, however, some difficulties arise because it was also significant with the organizational process model in the previous analysis. The

problem becomes how to choose between these two models for this dyad.

In another context, Rao and Miller suggest how to differentiate models with similar, yet slightly different, variables--analogous to the situation present here with the combined, organizational process, and the event/interaction models.¹⁷ The test involves computing an F-statistic using the residual sum of squares from the regression analyses for the two models that are alike in all ways except for one, two, or n independent variables. The more complex model is labeled the null hypothesis and the less complex model (i.e., the one with fewer independent variables), the alternative hypothesis, or the complex model with "restrictions."¹⁸ The comparison of the residual sum of squares controlling for "restrictions" (i.e., the number of variables by which the models differ and the degrees of freedom) will then discriminate between the models. If the F-statistic is significant, the null hypothesis is rejected, and the alternative hypothesis is accepted. If the F-statistic is not significant, the null hypothesis is accepted.¹⁹

In the present case, then, the combined additive model will be designated the null hypothesis, and the organizational process model will be designated the alternative hypothesis. In this way, then, some statement can be made about the dyads of nations that are significant for two or more models in the various analyses.

Applying this Rao-Miller test to the Israel-Egypt dyad for the complete Suez period, the combined model is supported over the organizational model for both data sets. This finding supercedes the earlier conclusion about the organizational process model when the

separate models were evaluated. Nevertheless, while this combined model does better for Israel's behavior toward Egypt, it is important to bear in mind that a large component of this combined model is the continued strength of the PASTB variable. In this sense, then, the earlier conclusions about the reliance on past policies for this dyad are only slightly altered. Moreover, given the additional information costs as one moves from one model to the next, one might still be better off relying upon the organizational model in making predictions.

More generally, the effectiveness of the combined model is rather low across the other dyads for the Suez Crisis. While it does, as we indicated, improve the amount of explained variance slightly, it is still not sufficient to warrant our choosing it over either of the other two models across the five dyads.

Multivariate Analyses for the Phases of the Suez Crisis

For the phases of the Suez Crisis, similar conclusions hold about the effect of the combined additive model as for the entire Suez period. In general, the direction of the beta weights are the same as with the simple linear regression models. Similarly, the magnitude of the beta weights are about the same for the time data set and slightly lower for the first difference data set in both phases. Likewise, the signs of the beta weights are the same as with the separate analyses. On the average, the multivariate analyses improve the amount of variance explained, but not the goodness of fit by the F-test. Some differences do exist for the less intense and the more intense phases and are worth noting.

With the multivariate model in the less intense phase, the improvement in the amount of variance explained is rather consistently high. For the unlagged data for both sets, ten out of the twelve cases show improvement in the variance explained by this model when compared with the variance explained by the best singular model.²⁰ See Tables 41 and 42 and compare them with Table 33. The increases in the explained variance range from 2 to 10 per cent with the dyads of Israel and Egypt and Great Britain to Egypt showing the greatest increases with this combined model.

While the increases in explained variance are modest, they are nevertheless important, considering the number of variables employed. Thus, they do lend some credence to the argument that there seem to be an additive model operating in this less intense phase of the Suez Crisis.

Regarding the F-test for the combined model in this phase, the results are less encouraging. Only two dyads are statistically significant. For the time data set, the Israel to Egypt dyad reaches the .05 level. These same dyads were significant for the organizational process model (Israel to Egypt) and for the event/interaction model (Great Britain to Egypt) in the separate analyses. Thus, the Rao-Miller test needs to be applied to choose between the models for these dyads. By this test, the combined model is accepted over the other models for these dyads.

This combined model then affords better predictions about the behavior of these nations toward their adversaries than reliance upon the earlier models. However, it still needs to be emphasized that even with this combined model, the PASTB variable for Israel and the

Table 41.--Response Behavior Predicted by Both Past Behavior and Received Behavior in Less Intense Phase of Suez Crisis: Unlagged Time Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N(Weeks)
EG to IS	-.16	.35	.11	1.240	2.446	41
IS to EG	.144	-.14	.17	1.346	3.954 (p=.03)	41
EG to GB	.18	.14	.05	.979	.368	18
GB to EG	-.01	-.57	.32	.613	3.535 (p=.05)	18
EG to FR	.17	-.41	.20	1.146	1.829	18
FR to EG	-.18	-.03	.03	.940	.247	18

Table 42.--Response Behavior Predicted by Both Past Behavior and Received Behavior in Less Intense Phase of Suez Crisis: Unlagged First Difference Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N(Weeks)
EG to IS	-.32	.21	.11	1.774	2.363	40
IS to EG	-.26	.18	.13	1.390	2.684	40
EG to GB	-.27	-.13	.10	1.256	.815	17
GB to EG	-.30	-.64	.44	.744	5.512 (p<.05)	17
EG to FR	.21	-.39	.23	1.518	2.130	17
FR to EG	-.58	-.16	.32	1.171	3.255	17

RECB variable for Great Britain is still quite strong. The other nations in this crisis do not show better results for this combined model. Thus, Egypt relies more on just its past policies toward Israel while France's and Egypt's interaction still maintain weak ties to the received behavior of the other. On balance, then, this combined model does not prove to be a much better model than the organization process or the event/interaction model for this phase.

For the more intense phase, the additive multivariate model does not seem to work as effectively as in the less intense phase on the explained variance criterion. Across all the dyads only in a little over half of the cases is the percentage of explained variance increased for the unlagged data from the previous analyses. See Tables 43 and 44 and compare then with Table 37.²¹ Those that do respond to the additive model, however, do rather well. This is especially true with the first difference data set. In particular, the behavior of Israel to Egypt, Egypt to Great Britain, and Egypt to France--all reflect a strong additive model operating. In these instances, the explained variance is improved from 3 to 20 per cent by using the combined additive model rather than the simple linear model.

The F-test for the combined model in this phase reaches the .05 significance level for the Israel to Egypt dyad for the time data set and for the Egypt to Great Britain dyad for the first difference data set. For the latter case, since this dyad had not been previously significant for any of the other models in this phase, this combined model is obviously the better one. Some caution is in order, however, due to the relatively modest amount of variance explained (42%) and,

Table 43.--Response Behavior Predicted by Both Past Behavior and Received Behavior in More Intense Phase of Suez Crisis: Unlagged Time Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	.20	.13	.08	1.210	1.192	31
IS to EG	.44	.05	.21	.995	3.669 (p=.04)	31
EG to GB	-.01	.41	.17	.572	1.120	14
GB to EG	.19	-.22	.07	1.239	.443	14
EG to FR	.27	.36	.27	.699	2.006	14
FR to EG	.10	-.23	.05	1.526	.267	14

Table 44.--Response Behavior Predicted by Both Past Behavior and Received Behavior in More Intense Phase of Suez Crisis: Unlagged First Difference Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	-.24	.06	.06	1.921	.857	31
IS to EG	-.18	-.22	.09	1.129	1.385	31
EG to GB	-.45	.46	.42	.654	3.944 (p<.05)	14
GB to EG	-.16	.00	.03	1.639	.143	14
EG to FR	-.30	.36	.17	.624	1.318	14
FR to EG	.07	.04	.01	2.179	.031	14

more importantly, because this dyad still shows significant autocorrelation in the residuals for this data set. Thus, the possibility that the time trend has not been satisfactorily removed and/or that some important variables are missing leads one to be cautious about interpreting this finding.

Regarding the Israel to Egypt dyad, this same dyad was previously significant for the organizational model for the more intense phase of the crisis. Therefore, the Rao-Miller test is again applied to identify the better model. As with the combined model for the entire period and the less intense phase, Israel's behavior to Egypt again follows this model more closely than either of the two earlier models.

In short, though, the conclusion for this combined model in this intense phase is little different from the earlier multivariate analyses. While this model points to the additiveness of the earlier models, it is still an insufficient explanation for the interaction process. Only for Israel's behavior to Egypt and possibly for Great Britain's behavior to Egypt does this additive model demonstrate any real explanatory power. On balance, then, the nations in this more intense phase of the Suez Crisis do not follow this model very closely.

Summary of the Findings and the Implications for the Suez Crisis

The summary of the findings and their implications can be divided into what has been learned about the crisis models and what has been learned about the behavior of the nations in the Suez Crisis. For the models, first of all, the findings suggest that the event/interaction and the organizational process models are rather weak

general explanations of dyadic behavior in the Suez Crisis. This conclusion holds whether one examines the data across the entire period or in the more intense and less intense phase of the crisis and whether one examines the results by various statistical results--the F-test, the amount of variance explained, or by the magnitude of the beta weights. The hypotheses about the less intense phase (where the organizational process model is predicted to operate) and the more intense phase (where the event/interaction model is predicted to operate) are only weakly sustained. For the combined additive model, the results are similar. While the two models show some signs of additiveness, only for two dyads--Israel to Egypt and Great Britain to Egypt--does this model consistently do well across the crisis. In short, the results are rather disappointing for these often cited models of international crisis behavior.

Such results have a number of important implications for crisis research with these models. The researcher interested in more powerful explanations of the behavior of the nations in the Suez Crisis needs to look to more complex models than the ones investigated here. Despite the reasonableness of these models, the data fail to yield strong support across the nations involved in the Suez Crisis. More specifically, these findings seem to imply that while received behavior and past behavior play a part in predicting future behavior in a crisis situation, that part is considerably smaller than what these models would imply. In other words, more powerful explanatory variables still need to be identified and systematically tested for crisis behavior.

Regarding the use of phases of the Suez Crisis, the results here, while less than what we expected, still imply that the understanding of when internal dynamics gives way to external dynamics may still be a fruitful line of inquiry for managing conflict situations. Moreover, the results do show that the less intense and more intense phases do have slightly different processes operating. Although these differences may be a function of the type of nation involved, the attempt at understanding the dynamics of crisis phases should continue to be an important area of further work.

Despite only modest support for these models across all the nations, some important findings do emerge for particular nations in the Suez Crisis. The behavior of Egypt and Israel consistently supported the organizational process model across the entire crisis as well as in either of the two phases. The behavior of the other nations--France, Great Britain, and Egypt--more or less followed the event/interaction model across the less intense and more intense phase. Thus the findings tend to divide along certain dyads of nations with these models of crisis behavior.

Such results from the Suez setting seem to imply that the utility of the models is best conceptualized regarding certain types of nations. That is, nations with the highest degree of goal incompatibility in a crisis (e.g., Egypt and Israel) will tend to follow their own past behavior (the organizational model) over a crisis rather than seeking symmetry with their opponent's behavior. This is probably due to the fact that their goals have not been reached and/or because any apparent sign of change in behavior is not trusted. Conversely, of course, the nations with lesser degrees of goal incompatibility

in a crisis will tend to respond more directly to their opponent (the event/interaction model).

The results here also imply that nations with long-standing hostilities will tend to act differently than nations suddenly thrust into a crisis situation without this historical rivalry. For the former nations, they will tend to follow their past behavior (the organizational model) more consistently because of the generalized goals which they have agreed upon. For the latter nations, on the other hand, they will tend to engage in more reactive behavior since they have little basis for any other kind of behavior.

Finally, such propositions about nation-types operating these models is obviously a fertile ground for future research. Yet these propositions (assuming their validity) could be of immediate use to policymakers interested in managing crisis behavior. Because of the differences in the behavior patterns of nations in a crisis, different interventionary strategies may be needed to control the level of violence. For example, nations that tend to follow the event/intervention model would more likely respond to deescalatory unilateral initiatives by their opponents. Nations that tended to follow the organizational model would necessitate more third party action to alter their course of behavior. Armed with this information, interested policymakers would be on firmer ground for adopting particular types of action.

Findings for the Six Day War Crisis

As with the Suez Crisis, two data sets are employed in reporting the findings with the Six Day War Crisis. The procedure in reporting

these findings will also be the same. That is, I shall examine the models across the entire period; next I shall look at the operation of the models in particular phases; and finally I shall inspect the success of a combined additive model in the same two ways, across the entire crisis period and in particular phases.

Evaluation of the Models Across the Complete Crisis Period

For the entire Six Day War Crisis, the findings for the six dyads are considerably mixed and neither model is strongly supported. The results are portrayed in Table 45. With the unlagged time data set, the event/interaction model does better than the organizational process model. However, in three of the cases where the beta weights of RECB and PASTB are rather slight. Witness particularly the dyads of Jordan to Israel, Israel to Jordan, and Syria to Israel. With the first difference, on the other hand, the results are strongly in the direction of the organizational model. Not only is the organizational model supported by this data set, but the beta weights are generally high with the majority at .40 or better. A one week time lag introduced for each data set did not improve either the direction of one particular model or the magnitude of the beta weights. Rather, here, the beta weights are generally lower, and no clear pattern emerges for one model or the other. See Table 46.

For particular dyads, the models tend to break along different data sets than along particular models. For example, only for Israel to Egypt does the organizational model dominate both data sets. For the other dyads, they generally support the event/interaction model, albeit narrowly, with the time data set, and the organizational model

Table 45.--Response Behavior Predicted From Past Behavior and Received Behavior For Complete Six Day War Crisis: Unlagged Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	.02	.36	22
IS to EG	.23	.01	22
JOR to IS	-.04	-.11	24
IS to JOR	.18	.20	24
SYR to IS	.22	.27	38
IS to SYR	.18	.39	38
<u>First Difference Data</u>			
EG to IS	-.44	.16	21
IS to EG	-.16	.14	21
JOR to IS ^a	-.45	-.44	23
IS to JOR	-.44	-.07	23
SYR to IS	-.33	.06	37
IS to SYR ^a	-.30	.10	37

*See note at bottom of Table 30.

^aSignificant autocorrelation remains in the residuals.

Table 46.--Response Behavior Predicted From Past Behavior and Received Behavior: Lagged Six Day War Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	-.12	-.09	21
IS to EG	-.36	-.29	21
JOR to IS	-.20	.06	23
IS to JOR	.02	-.04	23
SYR to IS	-.06	-.30	37
IS to SYR	-.16	.03	37
<u>First Difference Data</u>			
EG to IS	-.09	.27	20
IS to EG	-.32	-.12	20
JOR to IS	-.13	.02	22
IS to JOR	.04	.06	22
SYR to IS	-.13	-.12	36
IS to SYR	.04	-.33	36

*See note at bottom of Table 30.

with the first difference data set. In part, the first difference results are produced by significant autocorrelations remaining in the residuals for Jordan to Israel and Israel to Syria. Thus, the earlier strong support for the organizational model is somewhat reduced.

Going beyond the direction of the beta weights for assessing the difference between the models for the complete crisis, the F-test is again employed. With this test, any statistically meaningful differences can be more easily identified. The first difference data provide support for the organizational process model. In fact, three of the six dyads with this data set are significant for this model with this test. These dyads are Egypt to Israel, Israel to Jordan, and Syria to Israel.²² For the time data set, only one dyad, Israel to Syria, is statistically significant, and it is for the event/interaction model. All these results are portrayed in Table 47.

In general, these results point to some support for the organizational process model across the complete Six Day War Crisis. Such a finding is similar to the results for Egypt and Israel for the Suez Crisis. The implication at that time was that nations with high goal incompatibility and historical rivalries tend to cling closely to their previous policies probably due to their generalized distrust of any apparent changes in the behavior of their opponent. Such an implication would hold here, although less strongly than in the Suez situation.

Evaluation of the Models in the Crisis Phases

We again employ the phases of the Six Day War Crisis to see if the findings can be specified more clearly. In this regard, the

Table 47.--Significant Dyads for Organizational Process and Event/
Interaction Models Across Complete Six Day War Crisis:
Unlagged Data.

Egypt to Israel (Organizational Model--First Difference Data)				
$R^2 = .19$	Std Error = 2.153 of Est.	N = 21	F-test = 4.500	Sign = .05
Variable	Reg. Coeff.	Std. Error of Coeff.	Computed T	
Intercept	8.603	1.336	6.451	
Past B	-.441	.208	-2.121	
Israel to Jordan (Organizational Model--First Difference Data)				
$R^2 = .20$	Std Error = 1.643 of Est.	N = 23	F-test = 5.089	Sign = .05
Variable	Reg. Coeff.	Std. Error of Coeff.	Computed T	
Intercept	8.737	1.236	7.069	
Past B	-.439	.195	-2.256	
Syria to Israel (Organizational Model--First Difference Data)				
$R^2 = .11$	Std Error = 1.438 of Est.	N = 37	F-test = 4.328	Sign = .05
Variable	Reg. Coeff.	Std. Error of Coeff.	Computed T	
Intercept	7.917	.981	8.069	
Past B	-.3321	.160	-2.081	
Israel to Syria (Event/Interaction Model--Time Data)				
$R^2 = .16$	Std Error = 1.020 of Est.	N = 38	F-test = 6.643	Sign = .01
Variable	Reg. Coeff.	Std. Error of Coeff.	Computed T	
Intercept	-3.1708			
Rec B	.365	.142	2.577	

first task is the division of the crisis into the less intense and the more intense phases. The same criteria as used for the Suez Crisis were employed. In this crisis as well, the less intense and the more intense phases were different for different dyads of nations. For the Syrian and Israeli dyads, the less intense phase was classified as the period from October 1966 through the end of March 1967. This period was the time that generally had a lower number and intensity of events. It is also during this time that the es-Samu raid occurred and that the border incidents began to increase.²³ In early April, however, a series of incidents occurred between these nations which are often related to the Six Day War. Moreover, higher frequency and intensity of action occurred and lasted through July 1967 before the activities ceased. Thus, it seem appropriate to classify this period as the more intense phase of the crisis.

For the Jordan and Israel dyads, the more intense period is classified as the time span from early May through mid-August 1967. It is during this time frame that a greater number of events occurred and their intensities tended to be greater. The less intense phase of the crisis for these nations set in about the middle part of August and lasted through the latter part of November. Here the number of events generally decreased, and the average hostility declined.²⁴

For the Egypt and Israel dyads, the more intense phase of the crisis lasted from mid-May through the end of July 1967. This time span is when the number and intensity of behavior are greatest during the crisis. The remaining portion of the Six Day War Crisis is classified as the less intense phase of the crisis for this dyad of nations and their interactions. It is obvious that during this

latter period the number of events is less and their intensity is reduced.²⁵

Turning first to the examination of the beta weights of the more intense phase of the Six Day War Crisis, we find that the event/interaction model (as hypothesized) is moderately supported. For the unlagged time data set, as presented in Table 48, four of the dyads are in the direction of the event/interaction model. With the unlagged first difference data (also presented in Table 48), the results are strongly opposite the predicted results. However, there seems to be a data problem with these results which we shall discuss shortly.

For the lagged data for the more intense phase, no further support emerges for the event/interaction model. For the lagged time data set, as portrayed in Table 49, the event/interaction model is supported in only two of the six cases. For the lagged first difference data (also presented in Table 49), the event/interaction model is supported in three out of the six cases indicating some movement toward this model with the lag.

These results have to be qualified somewhat. The signs generally are positive for the unlagged time data and negative for the unlagged first difference data. The lagged data, on the other hand, has mainly negative signs over the length of this phase. While negative signs are possible (if behavior declined in intensity over this phase), generally we would expect positive signs for both variables in that the conflict intensity is increasing. Thus, the large number of negative signs with the first difference data, for the unlagged set, makes these results somewhat suspect. This would seem to indicate that the effect of time has not been satisfactorily

Table 48.--Response Behavior Predicted From Past Behavior and Received Behavior For More Intense Phase of Six Day War Crisis: Unlagged Data.

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	.05	.74	11
IS to EG	.46	-.19	11
JOR to IS	-.06	-.05	12
IS to JOR	.22	.26	12
SYR to IS	.05	.46	16
IS to SYR	-.10	.19	16
<u>First Difference Data</u>			
EG to IS	-.54	.46	11
IS to EG	.04	-.56	11
JOR to IS	-.60	-.57	12
IS to JOR	-.30	.06	12
SYR to IS	-.64	.13	16
IS to SYR	.68	.19	16

*See note at bottom of Table 30.

Table 49.--Response Behavior Predicted From Past Behavior and Received Behavior for More Intense Phase of Six Day War Crisis: Lagged Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	.14	.01	11
IS to EG	-.29	-.32	11
JOR to IS	.16	.60	12
IS to JOR	-.06	-.04	12
SYR to IS	.28	-.06	16
IS to SYR	.17	.05	16
<u>First Difference Data</u>			
EG to IS	.03	-.23	10
IS to EG	-.33	.00	10
JOR to IS	.04	.67	11
IS to JOR	-.05	.25	11
SYR to IS	.28	-.23	15
IS to SYR	.16	-.06	15

*See note at bottom of Table 30.

removed by this technique. Thus, the continued presence of a "dominant" variable (i.e., time) may produce negative signs for the beta weights.²⁶

Following this line of reasoning, the results of the time data set would probably be more dependable for this particular phase. With this data set, the support for the event/interaction model is quite good. All dyads support the direction of this model except for Israel to Egypt and Jordan to Israel. For the latter dyad, in fact, the support for either model is so weak that apparently the behavior of Jordan to Israel has no relationship to these models. However, this result is misleading. If one examines the lagged time data, the results are strongly in favor of the event/interaction model (.60 for the beta weight).

The F-test further verifies the strength of support for the event/interaction model during this phase. For the unlagged time data set, the behavior of Egypt to Israel and Syria to Israel are supported for the event/interaction model by this test. For the lagged time data, the Jordan to Israel dyad is highly significant as well. These results are portrayed in Table 50. The dyads that are significant then, are so only for the event/interaction model.²⁷ More interestingly, it is the Arab nations that follow this model while Israel's behavior does not. This has rather important implications about the interaction process during this crisis phase.

These findings indicate that the behavior of the Arab nations is closely affected by the conflict interactions of their principal enemy, Israel, and that these nations respond rather directly to its behavior. Such a process, however, does not seem to operate for

Table 50.--Significant Dyads for the Organizational Process and the Event/Interaction Models for More Intense Phase of Six Day War Crisis: Unlagged and Lagged Data.

Egypt to Israel (Event/Interaction Model--Time Data)				
$R^2 = .55$	Std Error = 1.268 of Est.	N = 11	F-test = 10.882	Sign = .009
Variable	Reg. Coeff.	Std. Error of Coeff.	Computed T	
Intercept	-6.125			
Rec B	.749	.227	3.299	
Syria to Israel (Event/Interaction Model--Time Data)				
$R^2 = .21$	Std Error = 1.107 of Est.	N = 16	F-test = 3.698	Sign = .08
Variable	Reg. Coeff.	Std. Error of Coeff.	Computed T	
Intercept	-4.9424			
Rec B	.622	.324	1.923	
Jordan to Israel (Event/Interaction Model--Time Data)				
$R^2 = .36$	Std Error = 1.163 of Est.	N = 12	F-test = 5.613	Sign = .04
Variable	Reg. Coeff.	Std. Error of Coeff.	Computed T	
Intercept	-4.925			
Rec B	.622	.263	2.369	

Israel's behavior toward its opponents during the Six Day War period. Israel's behavior is not a function of the Arab nation's behavior toward it nor does it seem to be tied to its own past behavior. In essence, then, the foreign policy of Israel toward its Arab opponents results from a considerably more complex process than these models assess--even in the period of highest conflict intensity. Perhaps Israel's behavior is a function of the combined additive effect of these two models (a notion which we shall evaluate shortly) or a function of a host of other factors, such as the combined effect of all Arab nations toward Israel, the behavior of the United States and the Soviet Union, the action of the United Nations in the Middle East, or even the result of domestic struggle during this time (e.g., the policies of Eshkol vs. Dayan). These latter factors cannot be evaluated here, but certainly could be an area of future research. At this stage, though, the conclusion is clear: even in the most critical period of the Six Day War Crisis, the behavior of Israel was based upon considerably more complex calculations than was the behavior of its Arab opponents.

These findings for the Arab nations are only partly consistent with a much larger study of Arab-Israeli interactions by Jonathan Wilkenfeld and his colleagues at the University of Maryland.²⁸ They found that Israel's level of hostile behavior was the best predictor for the behavior of the Arab nations and conversely that Arab behavior toward Israel was the best predictor of Israeli response. However, our findings raise serious questions about such results because of the weak support even in the more intense phase. Thus, further research

about Israeli decisionmaking process is needed to clarify these findings.²⁹

In contrast to the more intense phase, the results for the less intense phase are quite disappointing for the models as indicated in Table 51. The magnitude of the beta weights generally do not support the organizational model as predicted. In fact, for the unlagged time data, five (all except Syria to Israel) dyads support the event/interaction model. But even with these results, the magnitudes of the beta weights are quite low and, accordingly, so are the levels of variance explained. While the first difference data do support the organizational model, significant autocorrelation in the residuals obfuscates the issue. As a result, dependence on these data is suspect.

With the lagged data, as shown in Table 52, the organizational model is marginally supported for the time data set and less so for the first difference data. With the latter data set, however, the continued presence of significant autocorrelation again confuses the results. Relying on the time data, then, it is safe to state that the findings move toward the hypothesized relationship with the one week lag. This result seems reasonable in the sense that nations would take more time for the calculation of their policies during this time and would show some dependence on their past behavior.

Yet the F-test for these data again demonstrates the weakness of any of these results. For the unlagged time data set, while the beta weights generally support the event/interaction model, only for the Israel to Syria dyad does the F-test reach the .05 level for this model. With the lagged data, where most of the dyads tended to follow

Table 51.--Response Behavior Predicted From Past Behavior and Received Behavior for Less Intense Phase of Six Day War Crisis: Unlagged Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	.03	.08	11
IS to EG	-.05	.21	11
JOR to IS	.06	-.16	12
IS to JOR	.16	.24	12
SYR to IS	.35	.17	22
IS to SYR	.27	.54	22
<u>First Difference Data</u>			
EG to IS ^a	-.37	-.16	10
IS to EG	-.37	.27	10
JOR to IS	-.35	-.34	11
IS to JOR ^a	-.58	-.20	11
SYR to IS	-.05	.00	21
IS to SYR ^a	-.13	.30	21

*See note at bottom of Table 30.

^aSignificant autocorrelation in the residuals.

Table 52.--Response Behavior Predicted From Past Behavior and Received Behavior for Less Intense Phase of Six Day War Crisis: Lagged Data.*

	Beta Wt. Past B	Beta Wt. Rec. B	N (Weeks)
<u>Time Data</u>			
EG to IS	-.09	-.17	10
IS to EG	.47	.28	10
JOR to IS	-.53	-.44	11
IS to JOR	.12	-.02	11
SYR to IS	-.26	-.45	21
IS to SYR	-.27	-.06	21
<u>First Difference Data</u>			
EG to IS ^a	-.14	-.33	10
IS to EG	-.33	-.21	10
JOR to IS	-.28	-.46	11
IS to JOR ^a	.12	.32	11
SYR to IS	-.18	-.39	21
IS to SYR ^a	-.23	-.17	21

*See note at bottom of Table 30.

^aSignificant autocorrelation in the residuals.

the organizational model, the results are not any better. Only one dyad, Jordan to Israel, is close to significance at .10.

Given these results, any statement about the operation of the models in this less intense phase would be from very weak empirical evidence. While the direction for the lagged data is toward the organizational process model as predicted, the degree of support is not very strong. Yet the results for the event/interaction model are just as weak. In general, then, we are left in the position of not being able to accept either model for this phase. More importantly, perhaps, we find that the behavior of these nations seems to have little grounding in these models in this portion of the crisis. This, of course, suggests that considerably different variables than the ones examined here explain what is occurring between these nations. For example, the present models do not touch the questions of domestic unrest and its relationship to the foreign policy of these nations, the level of inter-Arab conflict, or the impact of the intervention of the United Nations, the United States, and the Soviet Union into the region. All of these factors have been identified as being important for explaining the behavior of the Arabs and the Israelis, although little empirical work exists for these dimensions.³⁰ In this connection, then, these factors would be important areas of future inquiry during this time frame.

Before we reject or accept the present variables, however, it behooves us to see if the additive effect of these variables would provide better results than we have obtained so far for the Six Day War Crisis. Thus, it is to the examination of the combined additive model for this crisis to which we now turn our attention.

Multivariate Analyses of the Complete
Six Day War Crisis

With the combined additive model for the entire crisis period, the beta weights for the independent variables are stronger than with either model separately. The signs of the beta weights are also very nearly the same for all the dyads as when they were analyzed previously. The relative dominance of one variable over the other continues to be reflected by the relative strength for the beta weights. With the first difference unlagged data, for example, PASTB has stronger beta weights for this combined model. With the unlagged time data, the beta weights for RECB are greater for five out of the six cases. For this data set, however, the relative strength of the beta weights are lower than with the first difference data set. See Tables 53 and 54 and compare with Table 45.³¹

Turning to the amount of variance explained for the entire crisis period, the additive model continues to do better than with the best singular model previously. In nine of the twelve cases across the two data sets (five for the first difference data and four for the time data), the amount of explained variance is improved. The increases, however, are still very modest across the entire period. This improvement ranges about 2 per cent to 13 per cent of the variance. Again compare with Tables 53 and 54 with Table 45.

For the F-test, the results are less successful with this model. Only two dyads--Egypt to Israel (for the unlagged first differences)³¹ and Israel to Syria (for the unlagged time data) are significant for the combined model. These two dyads, however, were previously significant for the organizational process and the

Table 53.--Response Behavior Predicted by Both Past Behavior and Received Behavior for Complete Six Day War Crisis: Unlagged Time Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	-.24	.49	.17	1.541	1.977	22
IS to EG	.31	-.15	.07	1.719	.699	22
JOR to IS	.02	-.12	.01	1.577	.131	24
IS to JOR	.10	.15	.05	1.441	.548	24
SYR to IS	.07	.22	.07	1.186	1.414	38
IS to SYR	-.19	.52	.17	1.023	3.679 (p=.04)	38

Table 54.--Response Behavior Predicted by Both Past Behavior and Received Behavior for Complete Six Day War Crisis: Unlagged First Difference Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	-.59	.39	.32	2.028	4.254 (p<.05)	21
IS to EG	-.13	-.09	.03	2.160	.311	21
JOR to IS ^a	-.32	-.29	.27	2.022	3.666 (p<.05)	23
IS to JOR	-.53	.18	.22	1.656	2.837	23
SYR to IS ^a	-.44	.25	.16	1.416	3.263 (p<.05)	37
IS to SYR ^a	.43	.29	.16	1.316	3.202 (p=.07)	37

^aSignificant autocorrelation in the residuals.

event/interaction models respectively. Thus, in order to establish which model is the better one for these dyads, the F-test of the residual sum of squares was performed. By this test, the combined model was accepted over the alternative models for these two dyads.

Given the increases in explained variance across the dyads, the two earlier models obviously exhibit some additive qualities. Yet only two dyads are significant for this model, and even they were previously significant with the singular models. Moreover, the total explained variance, while increased from the previous model, is still relatively modest at 32 per cent. This amount, albeit important for two variables, still leaves a great deal of unexplained variance. On balance, then, the overall findings for this combined model are only marginally better than for the singular models examined earlier for the entire crisis period. The implication of these findings are that while the models--whether the organizational, event/interaction, or the combined models--partly depict the behavior of the entire Six Day War Crisis, as presently formulated they are not very adequate. In short, only considerably more complex models will adequately explain the Arab-Israeli behavior across this entire critical period.

Multivariate Analyses for the Phases of the Six Day War Crisis

The combined additive model in the more intense phase of the Six Day War Crisis provides a better fit than either the organizational process or the event/interaction models. Compare Tables 55 and 56 with the earlier results for the more intense phase in Table 48.³² In fact, this combined model provides the best results for any of the dyads that we have examined thus far. The beta weights are uniformly

Table 55.--Response Behavior Predicted by Both Past Behavior and Received Behavior in More Intense Phase of Six Day War Crisis: Unlagged Time Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	-.49	.99	.72	1.064	10.129 (p=.001)	11
IS to EG	.78	-.60	.47	1.589	3.557	11
JOR to IS	-.05	-.04	.01	1.571	.022	12
IS to JOR	.14	.22	.09	1.425	.429	12
SYR to IS	-.23	.57	.25	1.120	2.147	16
IS to SYR	-.19	.18	.04	.902	.237	16

Table 56.--Response Behavior Predicted by Both Past Behavior and Received Behavior in More Intense Phase of Six Day War Crisis: Unlagged First Difference Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	-.82	.76	.79	1.300	15.151 (p<.01)	11
IS to EG	.28	-.67	.38	1.921	2.506	11
JOR to IS	-.47	-.44	.53	1.553	5.202 (p<.05)	12
IS to JOR	-.34	.16	.11	1.785	.566	12
SYR to IS	-.70	.27	.48	1.249	6.076 (p<.05)	16
IS to SYR	-.67	-.06	.47	.948	5.769 (p<.05)	16

stronger across both data sets, but the greater prominence of one variable over the other generally continues to hold. For example, with the first difference data, the stronger beta weights are for the PASTB variable while with the time data set, there is the split between PASTB and RECB across the six dyads.

The signs for these results are generally negative for PASTB and positive for RECB. This suggests that the nations tended to move away from their past behavior in this more intense phase and tended to move toward received behavior (as we would expect). While the impact of PASTB is still considerable for all dyads, the magnitude of the beta weights for RECB is especially strong for Egypt to Israel and Israel to Egypt. The Israel to Egypt dyad, however, seems to react at a less hostile (negative beta weight) level than what it received. Two other dyads, Israel to Jordan and Syria to Israel, show some movement toward responding to the behavior of their opponent, though still relying on their PASTB (especially Syria).

The strength of this additive model for this phase is reflected in the amount of variance explained. Ten of the twelve coefficients of determination (R^2) are increased with this model. The increases in explained variance range from 2 per cent to 20 per cent when compared to the previous best model. More importantly, perhaps, the total amount of explained variance is between .40 and .80 for half of these dyads. This is especially remarkable due to the fact that only two variables are investigated.

The power of this combined model is also demonstrated by the F-test of explained and unexplained variance. Six of the twelve dyads for the two data sets are significant by this test. For the time data

set, these dyads are Egypt to Israel and Israel to Egypt. For the first difference data, the dyads are Egypt to Israel, Jordan to Israel, Syria to Israel, and Israel to Syria. The Egypt to Israel dyad (the time data set) was also significant for the event/interaction model previously. Therefore, the F-test devised by Rao and Miller was utilized to choose between these models. In this instance, the combined model is accepted over the singular model.

Such findings for this combined model are quite encouraging for explaining the interaction process in this more intense phase. As you will note, five of the six dyads across the data sets fit this model to a remarkable degree, and, as we noted, the amount of variance explained is high, especially for the Egypt and Israel dyads.³³ Equally important is the fact that this combined model begins to explain the behavior of Israel toward its Arab opponents. Recall that in the previous analysis of this phase, Israel's behavior toward its Arab opponents did not fit either model while the Arab nations seemed to follow the event/interaction model quite closely. With the current results, however, we can state rather forcefully that the combined model reflects the additivity in the earlier models and offers an adequate explanation for the interaction process of all the nations for the more intense period of the Six Day War Crisis.

The results have some very important implications about the crisis interaction process once these nations reach this more intense phase. At this juncture, the possibility of other factors altering their behavior is considerably reduced. Moreover, any intervention strategy by other nations at this point would seemingly be much more difficult and probably unsuccessful. If one recalls the history of

the 1967 situation, these findings are put in some perspective. Once the nations (and particularly Egypt, Syria, and Israel) began to mobilize and move troops in the middle of May 1967 and once Jordan was brought under united Arab command, little could be done to alter the subsequent course of events, despite the numerous actions taken by the United States, the Soviet Union, and the United Nations.

The implication for conflict management from these findings would therefore seem to be the following: if peace is to be maintained in the Middle East, action by other nations must be taken prior to the time when this more intense phase sets in--i.e., the time when the behavior of the nations is mainly a function of their own past behavior and/or their opponent's behavior. After that time, intervention attempts will probably not be successful. Moreover, Deutsch and Russett are undoubtedly correct when they observe that once nations "reach the point of no return" in their crisis interactions, the controlling ability of the other nations in the international system is substantially reduced.³⁴

The task of actually carrying out this intervention advisory prior to this more intense period is unquestionably a difficult, but by no means impossible, undertaking. The constant monitoring of the behavior of these nations would require the kind of interaction data employed in this study on a regular basis. With the current proliferation of these data in the academic community, the policymakers would have little problem gaining access to this information. In this sense, the policymakers would be afforded a real opportunity for implementing a "early warning" system for potential "high spots" in the Middle East and in the entire international system. Moreover,

such efforts would reflect closure between the work of the academic community and the policymakers.

In the less intense phase of the Six Day War Crisis, the combined model does not fare as well as in the more intense phase. Although the beta weights for both PASTB and RECB are somewhat stronger than for either model separately, the combined model provides only a slightly better fit. Compare Tables 57 and 58 with the earlier separate results in Table 51.³⁵ Yet the pattern of the dominance of particular beta weights is the same as for the separate models. With the first difference data, the PASTB variable is uniformly higher than the RECB variable in all six cases. For the time data, the beta weights are higher for RECB than for the PASTB variable.

Seven of the twelve dyads across the two data sets show improvement in the amount of variance explained from the previously better model, but only for three dyads does the combined model explain more than 30 per cent of the variance. These dyads are Israel to Egypt, Israel to Jordan, and Israel to Syria. Even with these dyads, only one is significant in a statistical sense with the F-test. This is the Israel to Syria dyad.

Based on such results, the conclusion for this phase is as before. These models whether examined separately or in a combined additive form (as we have done here) do not inform us about the crisis interaction process between the Arabs and the Israelis.

Nonetheless, even such results have some important implications. They suggest that considerably different variables explain the interaction process and should be examined rather than emphasizing the ones inspected here. Some of these variables we alluded to earlier

Table 57.--Response Behavior Predicted by Both Past Behavior and Received Behavior in Less Intense Phase of Six Day War Crisis: Unlagged Time Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	.10	-.14	.01	1.647	.057	11
IS to EG	-.23	.34	.08	1.574	.364	11
JOR to IS	.08	-.21	.03	1.807	.135	12
IS to JOR	.01	.23	.06	1.622	.265	12
SYR to IS	.57	-.28	.15	1.160	1.678	22
IS to SYR	-.45	.90	.37	1.038	5.543 (p=.01)	22

Table 58.--Response Behavior Predicted by Both Past Behavior and Received Behavior in Less Intense Phase of Six Day War Crisis: Unlagged First Difference Data.

	Beta Wt. Past B	Beta Wt. Rec. B	R ²	Std. Error of Est.	F-Test	N (Weeks)
EG to IS	-.36	-.03	.13	2.338	.543	10
IS to EG	-.54	.47	.33	1.933	1.714	10
JOR to IS	-.23	-.20	.15	2.628	.693	11
IS to JOR	-.73	.25	.38	1.675	2.445	11
SYR to IS	-.09	.06	.00	1.520	.043	21
IS to SYR	-.49	.59	.24	1.424	2.817	21

and deal mainly with the role of external powers in the region and the domestic conditions within these nations. Yet the results are important for a considerably different reason: they point rather strongly that different processes operate in different parts of a crisis. Contrast the results for the more intense and the less intense phases or even across the entire crisis and the phases. Without such demarcations, any meaningfulness for the models would not have been detected. Thus, understanding the dynamics of different part of a crisis is an important area not only for theory construction about crisis process, but, also (recall the differences between the more intense and less intense phases) for potential conflict management by policymakers.

Summary of the Findings and
Implications from the Six
Day War Crisis

In general, the findings for the models are only slightly better than in the Suez Crisis. For the entire crisis period, the organizational process model tend to be only marginally stronger than the event/interaction model. The combined additive model provides about the same results. For the less intense phase of the crisis, the models seem to bear little resemblance to the behavior of the Arabs and the Israelis. The combined model does not do much better. To this point, then, the models seem to be rather weak explanations of the crisis interaction process.

In the more intense, however, the models--and particularly the event/interaction and the combined additive models--begin to demonstrate their utility. In this setting, the event/interaction model

does well for the behavior of the Arab nations but not the behavior of Israel. However, with the combined additive model in this phase, the behavior of both the Arab states and Israel follow this model. These results suggest that the models are considerably more useful in this phase of a crisis situation than in any other.

Such results, as we pointed out, have some important implications for managing conflict in the region. That is, the intervention of third parties to the conflict must occur before this period of mutually contingent interaction sets in if peace is to prevail. This implication seemingly would also hold for other nations caught in an escalation spiral where their foreign policy behavior is dependent only on this dyadic web. Moreover, we suggest that the new interest among conflict researchers in "early warning" systems would be especially useful for identifying these potentially high intense crisis areas in the international system and assisting policymakers with policy recommendations.

The utility of the phases was also adequately demonstrated by the important differences we found between the more intense and less intense periods of the crisis. In this connection, then, not using these crisis phases would have made it very difficult to identify the usefulness of these models. Thus, this approach in crisis research is worth considerably more attention.

As for particular dyads, some patterns emerge. As we pointed out, the Arab nations tend to support rather strongly the event/interaction model in the more intense phase while all the Middle East nations follow the combined additive model in this phase. Beyond these dyads, only a few nations do well with these models. Egypt's

behavior to Israel generally follows these models across the entire crisis (the organizational model) and the more intense phase (the event/interaction model) while Israel's behavior to Syria tends to follow the combined additive model across the crisis and the phases. Aside from these nations, however, the models show weak explanatory power.

The Two Crises: Some Comparisons

While much has already been said about the two crises, some brief comparisons of the highlights of the Suez and the Six Day War Crises are in order. First of all, the conclusions regarding the utility of the models is the same. On balance, the models do not do very well as general explanations of the crisis process for the nations involved in the Middle East. For the less intense phase across the two crises, the organizational process model does better in the Suez Crisis than in the Six Day War Crisis. Recall that in the Suez situation, Egypt and Israel were tied rather closely to their policies rather than responding to the behavior of their opponent. Such a pattern did not emerge in the Six Day War Crisis. On this occasion, neither model was followed by the nations in their interaction process and thus considerably different processes seemed to be operating. In the more intense phase of Suez, the event/interaction model (as predicted) did not seem to operate for Egypt and Israel for their interactions, but the model was more or less followed by Egypt, Great Britain, and France for their interactions. In the Six Day War Crisis, however, the event/interaction and the combined additive models were supported across the crisis for all the nations.

Such different results in this more intense phase of the two crises yield some face validity for the general form of McClelland's "routinization" of crisis hypothesis. This hypothesis relates to McClelland's general notion about the impact of succeeding crises on the behavior of nations. In contrast to Quincy Wright who argues that repeated crises makes it more difficult to handle each succeeding one, McClelland argues the very opposite.³⁶ It is his contention that as more crises occur between the same nations, learning about crisis behavior occurs. Consequently, the nations become better equipped to cope with each subsequent crisis. As a result, the symmetry of the behavior between the nations (i.e., the amount of support for the event/interaction model) is increased in the most recent crisis when compared to any earlier ones.

While this hypothesis has already been partially confirmed by McClelland's study of the crises over Berlin from 1948 through 1963, we also have an opportunity to test this notion explicitly with the behavior of Egypt and Israel in the two crises in that they were the only participants in both situations. If McClelland's argument is valid, we would expect that the Six Day War Crisis would be more "routinized" in terms of following the event/interaction model more consistently.

The indicators that we shall use to test this hypothesis are the beta weights for the event/interaction models. The greater the magnitude of the beta weights for the Six Day War Crisis as compared with the Suez Crisis, the more the nations are exhibiting symmetry in their behavior, and the more support for McClelland's learning hypothesis.

Examining the beta weights in Table 59, we find some support for this hypothesis. Egypt's behavior to Israel shows stronger support for the event/interaction model in the 1967 crisis than with the 1956 one. Israeli's behavior toward Egypt, on the other hand, generally does not support this notion except for the more intense phase of the Six Day War Crisis. Such results would in part be expected in that the organizational model was much stronger for Israel's behavior toward Egypt in the 1956 crisis and because Israel's behavior toward the Arab nations in general was apparently based upon other calculations than these linear models can evaluate.

Obviously, with only two cases and twelve points, any conclusion about McClelland's hypothesis is rather premature. On balance, though, there does seem to be some support for this learning notion. However, whether this learning process is useful in terms of reducing the hostility of behavior or reducing the frequency of crisis occurrence is a more fundamental question and one which this hypothesis does not examine. Such a question seems an appropriate area of future longitudinal crisis research.

This, then, concludes the data analysis for the crisis models in the two Middle East crises. In the next and concluding chapter, I summarize the study and comment on possible ways of refining the analysis of these models in future crisis research.

Table 59.--A Comparison of the Beta Weights for the Event/Interaction Model for the Behavior of Egypt and Israel in the Suez and the Six Day War Crises.

	1956	1967
<u>Unlagged Time Data</u>		
<u>Complete Crisis Period</u>		
EG to IS	.26	.36
IS to EG	.09	.01
<u>More Intense Phase</u>		
EG to IS	.21	.74
IS to EG	.22	-.19
<u>Less Intense Phase</u>		
EG to IS	.08	.08
IS to EG	.41	.21
<u>Unlagged First Difference Data</u>		
<u>Complete Crisis Period</u>		
EG to IS	.10	.16
IS to EG	-.23	.14
<u>More Intense Phase</u>		
EG to IS	.03	.46
IS to EG	-.21	-.56
<u>Less Intense Phase</u>		
EG to IS	.14	.16
IS to EG	-.25	.27

FOOTNOTES--CHAPTER V

¹While the use of the time regression is generally recognized as an excellent detrending technique, one cannot be quite so certain about first differences. First differences are recognized as being a somewhat less powerful detrending technique due to the fact that "(1) using amounts of change results in the loss of one pair of values and (2) if the trend is non-linear, the first differences of values fluctuating around that trend will still contain a trend element." Frederick E. Croxton, Dudley J. Cowden, and Sidney Klein, Applied General Statistics (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1967), pp. 492ff. See also Maurice Kendall, The Advanced Theory of Statistics (New York: Hafner Publishing Company, 1961), 3rd edition; and Michael J. Brennan, Preface to Econometrics (Cincinnati: South-Western Publishing Company, 1965). However, Ezekiel and Fox disagree with this position. They contend that first differences are superior to use of regression of the time variable. See Modecai Ezekiel and Karl A. Fox, Methods of Correlation and Regression Analysis (New York: John Wiley and Sons, Inc., 1959), p. 342.

²The tests are outlined in N. R. Draper and H. Smith, Applied Regression Analysis (New York: John Wiley and Sons, Inc., 1966), pp. 95-99; and J. Durbin and G. S. Watson, "Testing for Serial Correlation in Least Squares Regression," Biometrika, XXXVIII (1951), 159-177.

³While the autocorrelation that remains in these dyads could be due to the existence of some time trends, one should also be aware that autocorrelation may be due to important missing variables.

⁴Lagging a variable in a time series may introduce another trend in the data. On this point, see M. G. Kendall, op. cit., Vol. 2.

⁵Due to the fact that the data are from a population rather than a sample, tests of significance are not strictly applicable. Thus when they are used, they are only "suggestive" of the strength of the relationships.

⁶For a discussion of "dominant variables" and their impact on regression analyses, see Potluri Rao and Roger LeRoy Miller, Applied Econometrics (Belmont, Calif.: Wadsworth, 1971), pp. 40-43.

⁷A longer time lag would seem inappropriate in the short time span of a crisis. On the use of lag (or memory) models in international politics, see Dina A. Zinnes, "The Expression and Perception of Hostility in Prewar Crisis: 1914," in J. David Singer (ed.), Quantitative International Politics (New York: The Free Press, 1968), pp. 85-119.

⁸Significant autocorrelation exists for Egypt to France for the organizational model with the unlagged first difference data. However, the unlagged time data do not show any autocorrelation and still support the organizational model. Thus, the general direction of the results is still supported.

⁹For a dyad to be statistically significant, the F-test for the equation must reach the .05 level and the regression coefficients must be twice as large as their standard errors.

¹⁰For a similar argument, see Ole R. Holsti, Robert C. North, and Richard A. Brody, "Perception and Action in the 1914 Crisis," in J. David Singer (ed.), Quantitative International Politics (New York: The Free Press, 1968). These authors contend that received behavior is "magnified" through perceptual distortion which accounts for the lack of symmetry between the nations.

¹¹Charles E. Osgood, An Alternative to War or Surrender (Urbana: University of Illinois Press, 1962).

¹²See, in particular, Lincoln P. Bloomfield and Amelia C. Leiss, Controlling Small Wars: A Strategy for the 1970's (New York: Alfred A. Knopf, 1969), pp. 243-347.

¹³The existence of negative signs for the beta weights may indicate the ineffectiveness of the detrending techniques and the continued presence of a dominant variable (i.e., time).

¹⁴Autocorrelation remains in the residuals which obfuscates the meaning of the results for this dyad.

¹⁵The following remarks are, by necessity, somewhat speculative given the fact that only some of the results are significant in a statistical sense. However, the direction and the tendencies are fairly strong and consistent.

¹⁶Obviously the explained variance will increase with additional variables by some slight amount. However, I am interested in increases that are more than 1 per cent.

¹⁷See Rao and Miller, op. cit., pp. 141.-145. I am indebted to Bruce Bueno de Mesquita for suggesting this test to me.

¹⁸"Restrictions" refer to setting one of the parameters equal to a specific value in the alternative model. For our purposes, we set one parameter equal to zero from the combined additive model to obtain either the organizational process or the event/interaction model. For a general discussion of "restrictions," see Rao and Miller, op. cit., pp. 142 and 145.

¹⁹The precise formula for the test statistic is:

$$F = \frac{[RSS(H_n) - RSS(H_a)]/r}{RSS(H_a)/n-1-k}$$

where $RSS(H_n)$ stands for the residual sum of squares for the null hypothesis, $RSS(H_a)$ represents the residual sum of squares for the alternative hypothesis, r represents the number of restriction imposed (i.e., the number of variables set equal to a particular value), and $n-1-k$ represents the number of observations minus 1 and minus k independent variables. The significance level of this test can be determined in the usual way from an F table with degrees of freedom of r and $n-1-k$. See Rao and Miller, op. cit.

²⁰The lagged data for the multivariate model did not improve the variance explained or the goodness of fit by the F -test for the less intense phase. Thus, the results will not be reported.

²¹The lagged data for the multivariate model did not improve the variance explained or the goodness of fit by the F -test for the more intense phase. Thus, the results will not be reported.

²²Other dyads reach the .05 significance level, but because of significant autocorrelation in the residuals, they will not be discussed.

²³See the discussion in Chapter III for this period.

²⁴The tables for comparison are available in Chapter III.

²⁵Ibid.

²⁶On this point, again see Rao and Miller, op. cit., pp. 141-145.

²⁷Other dyads are significant for the first difference data, but because of the apparent data problem in this particular instance, they will not be included in the discussion.

²⁸Jonathan Wilkenfeld, Virginia Lussier, and Dale Tahtinen, "Conflict Interactions in the Middle East, 1949-67," Journal of Conflict Resolution, XVI, 2 (June, 1972), 146.

²⁹Some work in this direction has already begun. See Michael Brecher, The Foreign Policy System of Israel: Setting, Images, Process (New Haven: Yale University Press, 1972).

³⁰See Robert Burrowes and Douglas Muzzio, "The Road to the Six Day War: Towards an Enumerative History of Four Arab States and Israel, 1965-67," Journal of Conflict Resolution, XVI, 2 (June, 1972), 211-226.

³¹Similar analyses were done for the lagged data, but the results are weaker than with the unlagged data and need not be reported.

³²Similar analyses were done for the lagged data, but the results are weaker than with the unlagged data and need not be reported.

³³Apparently Israel's behavior toward Jordan is based upon considerably different variables than the ones examined here even in this more intense phase.

³⁴Karl W. Deutsch, "The Point of No Return in the Progression Toward War," Journal of Conflict Resolution, I (1957), 200-211; and Bruce Russett, "Cause, Surprise, and No Escape," Journal of Politics, XXIV (February, 1962), 3-22.

³⁵Similar analyses were done for the lagged data, but the results are weaker and need not be reported.

³⁶See Charles McClelland, "The Acute International Crisis," in Klaus Knorr and Sidney Verba (eds.), The International System: Theoretical Essays (Princeton: Princeton University Press, 1961), pp. 186-189.

CHAPTER VI

SOME CONCLUSIONS

This final chapter has three main goals: (1) to provide a brief summary of the study and the findings; (2) to suggest a number of important caveats about the findings due to the ways the models are specified and the kind of data used in the analysis; and (3) to point the direction of future research in this area of international politics.

A Brief Summary of the Study

This study began with a concern for the problem of international crisis behavior and the explanations that had been advanced for such a process. Inspired by Tanter's evaluation of Allison's organizational process paradigm, McClelland's event/interaction model, and a combined interaction/organizational model in the Berlin Conflict of 1961, I was interested in evaluating these same models in a different setting and in a different way. Specifically, I was interested in examining dyadic nation-state behavior in the Suez and the Six Day War Crises in the Middle East. However, unlike Tanter, I was also interested in evaluating alternative hypotheses for the operation of these models in particular phases of a crisis situation.¹

Allison's organizational process paradigm is grounded in the work of organizational theorists and economists interested in explaining the operation of large-scale companies and organizations by set procedures of operation. Allison contends a similar process applied to the foreign policymaking of a nation. In brief, foreign policymaking (including crisis behavior) is conceptualized less as deliberate choices by individual political decisionmakers and more as decisional outputs of large organizations following standard operating procedures (SOPs). Such a decisionmaking procedure results in behavior that is little changed from one period to the next. That is, the SOPs provide considerable inertia to maintain the same behavior with perhaps marginal or incremental changes. Following this line of reasoning, a fundamental hypothesis emerges for this crisis study: the past behavior of a nation would best predict to the future behavior of a nation at a given time in a crisis setting.

McClelland's event/interaction model, on the other hand, does not view a nation's behavior as a response to internal dynamics of its bureaucracy, but rather as a result of interaction patterns between nations. That is, a nation's behavior is depicted more as a response to the behavior of another nation than as a decisional output of organizational routines. In a sense, then, this model fits well the action-reaction or stimulus-response mode of analysis of international behavior. This formulation thus provides a fundamental hypothesis: the behavior received from another nation predicts to a nation's future behavior. Another hypothesis also emerges from McClelland's formulation. He argues that a "routinization" of behavior occurs from one crisis to the next for the same participants and that they

therefore would follow one another's behavior in the more recent crisis. Consequently, the latest crisis should demonstrate greater support for the event/interaction model than in any previous one.

A third model, the combined one, evaluates the additive impact of the organizational process and the event/interaction models upon a nation's behavior. The general hypothesis from this model is: both the past behavior of a nation and the received behavior of a nation will predict to the future behavior of that nation.

All of these models are further spelled out in Chapter I along with the theoretical underpinnings upon which they rely. In addition, Chapter I specified the major hypotheses in terms of what periods of the crisis situation that they are most likely to operate. Specifically, the organizational process model is argued to operate better in the less intense phase of the crisis when the stress is less severe and the organizational routines are more likely to be employed. The event/interaction model, on the other hand, is argued to operate in the more intense phase when an immediate response to the external environment is needed. In this way, one may begin to address the question of when the internal dynamics give way to external dynamics in a crisis situation. Moreover, such information would be most beneficial for effective conflict management.

In order to evaluate these models, a number of prior considerations was necessary. I needed first to define what constitutes an international crisis situation and what empirical indicators could be used to delimit such situations. The definitional requirements of a crisis encompassed important concepts both from the decisionmaking level within a nation (e.g., high threat, surprise, and short decision

time) and from the interaction level between nations (e.g., abrupt changes in behavior). Operationally, the decisionmaking elements of international crises were specified by the speeches and statements of the principal decisionmakers in the nations under investigation while the interaction elements were operationalized by the frequency and intensity of events over a number of years surrounding what were popularly identified as more or less the crisis periods. By these two methods, some empirical parameters for the length of each crisis were established. Only then could I reasonably examine the models of international behavior within each crisis situation. Considerable research time was devoted to these tasks, and considerable discussion of the procedures and results are given in Chapter III.

The operationalization of these models then becomes dependent upon three important concepts--past behavior, received behavior, and response behavior. The concepts were operationalized through the coding and scaling of international events data for the nations involved in the crises. For each nation, a daily profile of its behavior toward another nation was calculated, and a summary of the mean level of intensity (the violence score) was computed on a weekly basis. Then by using the time dimension (one week), the three concepts were easily separated from one another for each set of nations by these violence scores. Chapter IV outlines in more detail the procedures for the collection and scaling of the international events and the operationalization of the concepts.

The technique for evaluating these models was least squares regression analysis. In order to use regression analysis in that the study is over time, two detrending techniques were used to remove

autocorrelation in the violence scores: (1) using the residuals of each dependent variable regressed against time, and (2) using the first differences of the violence scores. The success of these detrending techniques are reported. Similarly, in the case of the evaluation of the combined additive model, the level of intercorrelation between the independent variables was calculated, and multicollinearity was found not to be a problem for such multivariate analysis.

The results from the data analysis for both the Suez and the Six Day War Crises lend only weak support to the models as general explanations of crisis behavior. The hypotheses about the operation of the models in the phases of the crisis are only partly supported. In the less intense phase, we find generally weak support for the organizational process model except for Egypt and Israel in the 1956 crisis. For the more intense phase, the hypothesized event/interaction model received stronger support than for any other model in any other time frame. This is especially true in the 1967 crisis where this model (and the combined one) does well for all the nations. Across the entire crises for both the 1956 and the 1967 periods, however, the models fail to do well.

These results, therefore, point to the inadequacy of the models as explanation of the entire crisis periods, but the differences in the phases do suggest that the models have some utility in these instances. Similarly, these results point to the importance of understanding the thresholds of international crisis behavior where internal dynamics give way to external dynamics. Such information seems to have important consequences for future conflict management.

Despite the general lack of effectiveness for the models as a whole, some dyads did particularly well with the models. Egypt and Israel did well for the organizational model in the Suez Crisis while the Arab nations did well for the event/interaction model in the Six Day War Crisis. While the other dyads showed some tendency to follow these models, none did as well as these nations. As a result, the increase in additional information about foreign policy of the Middle East nations is only moderately increased.

Finally, McClelland's hypothesis on the "routinization" of behavior from one crisis to the next is generally supported. However, this support more often comes (not unexpectedly) in the more intense phase of the crises.

The generalizability of the findings for these crisis models must, of course, be approached cautiously. This is due to the fact that only two cases of crisis behavior are analyzed. Nonetheless, our findings are markedly similar to Tanter's results, albeit the settings were different (i.e., dyadic alliance behavior in the Berlin conflict and dyadic nation-state behavior in the Middle East). Given such circumstances, considerable uneasiness exists about the adequacy of these models for crisis process.

Some Caveats About the Study

At this point, it is only fair to state that the findings may in part result from a number of theoretical and/or methodological problems which we may not have adequately resolved--despite the considerable rigor employed here. The first and foremost problem, of course, deals with the specification of the models. It could well

be the case that I have not fully extracted the essential variables from the models or that the models themselves are not fully explicated. Regarding this problem, recall that for the evaluation of the organizational process model, we did not identify the standard operating procedures (SOPs) within each nation but inferred these procedures by the relationship between past behavior and response behavior. This research strategy (albeit informative and important) may not be totally satisfactory for the evaluation of the model. As a result, then, studies of a more strictly organizational variety may be needed. In this connection, studies which specify the lines of authoritative foreign policy decisionmaking and the internal dynamics of such a structure during a crisis may be more appropriate.

Such studies, however, may have to await further specification and development of the model itself. According to one commentary on this model, it lacks "theoretical and methodological flesh" and is "still many steps removed from a set of operationally defined variables linked together in a network of explicit propositions."² That is, Allison has provided the rudimentary outline of a possibly general explanation of foreign policy decisionmaking, but considerable work remains to be done on the assumptions and the propositions that flow from these assumptions. In this sense, the present study can best be classified as exploratory on the utility of this model.

In a way, a similar set of remarks can be made about McClelland's event/interaction model. The assumptions underlying his formulation have not been made explicit,³ and, despite Tanter's attempt to relate the model to a general learning process, more theoretical

effort is probably still necessary. With this model, too, considerable room is still left for future research.

A second possible source of error in the study is the type of data used. More precisely, I refer to the general problems of the collection and scaling of international events data for the Middle East nations. The problem with the collection and coding of these data is less severe than with the scaling of these events. While we documented the considerable efforts that were made to identify as many events across a variety of sources, the care taken with the scaling enterprise was generally less successful.

The scaling procedure is probably weak in two closely related aspects. First of all, there is little guarantee that our assessment of the events corresponds to the evaluation that the decisionmakers of the nations give them. While we assume that decisionmakers assess the actions that they receive in some subjective way, few results, to my knowledge, are available that demonstrate the agreement between such assessments and the various scaling instruments that have been devised. As a result, of course, the external validity of these scale values are an obvious source of potential error. Secondly, the use of scale values as interval level measures, while commonly done in studies of this kind, is a further source of possible error. That is, it is more reasonable to assume that the decisionmakers of a nation ordinarily rank sets of behaviors with little regard for identifying the precise distances between them as interval measurement would imply. In short, this aspect of the scaling problem also contributes to the weakening of the external validity of our scaling of international events.

A Final Comment: Some Future
Research Possibilities

At this point in the study, we can now comment on the general thrust of future research on these models of international crisis behavior. Several suggestions have already been implicit from our critique of the study in the last section. That is, further specification of the models and some improvement in the data base are useful points of departure. Going beyond these important possibilities, a number of other research options are open. For example, a first step seems the evaluation of more multivariate models to identify the interaction effects of these two general models of crisis process. In particular I have in mind the use of multivariate and polynomial models to depict the interaction process during these crisis situations. Secondly, more theoretical work is needed to add to the complexity of the two models. Specifically I mean moving beyond a dyad of behavior as the basic unit of analysis to the use of a series of nations that may, in fact, affect the behavior of a particular nation. Since nations are not only tied to a dyadic web of interaction, expanding the analyses to include the impact of the behavior of a number of nations seems reasonable. For example, it may well be instructive to know the combined effect of Egypt and Syria's behavior upon Israel during the Six Day War Crisis or to know the combined effect of the behavior of Great Britain, France, and Israel on the response behavior of Egypt in the Suez Crisis.⁴ These research suggestions would require more elaborate models (and sound theoretical arguments as well). Yet it seems that all of them could be grounded within the general

framework of the event/interaction and the organizational process models of international crisis behavior.

The research directives just outlined were aimed mainly at theoretical and methodological questions in the study of the crisis phenomenon. As a consequence, they leave the impression that the issue of policy relevance is being shunned. This is not necessarily intended. We have pointed out in a number of places in the study the important implications of the models for the policy choices of various nations. Yet it is somewhat safe to conclude that the direct policy outcomes are less apparent than the work on understanding the process of international crisis behavior. For this we offer no apology.

While not denying the possibility that studies in international relations can sometimes move forward in terms of theory construction and policy relevance,⁵ scholars in this field generally have found it difficult to combine the two efforts.⁶ As a result, the question has become which is the more meaningful enterprise, and the debate has been long and hard.⁷ From our perspective, both are essential as long as they are combined in a particular way. That is, only through the development of scientific theories which helps us to understand the international system--and in our case the dynamics of crisis behavior--can we hope to adopt policies which effectively manipulate the environment toward the ends we seek. However, given the lack of adequate theory of international behavior, we believe that future work should first be directed toward the development of theory while, if necessary, eschewing the immediate policy relevance of such research.

FOOTNOTES--CHAPTER VI

¹Tanter suggests this as a future research possibility in his conclusions. See Raymond Tanter, "International System and Foreign Policy Approaches: Implications for Conflict Modelling and Management," World Politics, XXIV (Spring, 1972), 38.

²Ole R. Holsti, "Review of Essence of Decision: Explaining the Cuban Missile Crisis," The Western Political Quarterly, XXV, No. 1 (March, 1972), 138-139.

³On this point, see David Bobrow, "The Relevance Potential of Different Products," World Politics, XXIV (Spring, 1972), 210.

⁴For one piece of research that begins to do this type of analysis, see Jonathan Wilkenfeld, Virginia Lee Lussier, and Dale Tahtinen, "Conflict Interaction in the Middle East, 1949-67," The Journal of Conflict Resolution, XVI, 2 (June, 1972), 135-154.

⁵See Philip A. Burgess, "International Relations Theory: Prospect 1970-1995" (a paper presented at the Annual Meeting of the American Political Science Association, Los Angeles, September 7-11, 1970, mimeo).

⁶Bobrow, op. cit., p. 216.

⁷This debate has often been framed in the traditional versus the behavioral approach to international relations. See, in particular, Hedley Bull, "International Theory: The Case for a Classical Approach," World Politics, XVIII (April, 1966), 363-377; and Morton Kaplan, "The New Great Debate: Traditionalism versus Science in International Relations," World Politics, XIX (October, 1966), 1-20.

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APPENDICES

APPENDIX A

ACTOR-TARGET CODE

CONFLICT AND PEACE DATA BANK

APPENDIX A
 ACTOR-TARGET CODE
 CONFLICT AND PEACE DATA BANK

Numeric	Alpha	Actor (Full Name)
002	USA	United States of America
004	SLF	Self
020	CAD	Canada
040	CUB	Cuba
041	HAI	Haiti
042	DOM	Dominican Republic
051	JAA	Jamaica
052	TRI	Trinidad-Tobago
053	BAS	Barbados
070	MEX	Mexico
090	GUA	Guatemala
091	HON	Honduras
092	ELS	El Salvador
092	NIC	Nicaragua
094	COS	Costa Rica
095	PAA	Panama
100	COL	Columbia
101	VEN	Venezuela
110	GUY	Guyana
130	ECU	Ecuador
135	PER	Peru
140	BRA	Brazil
145	BOL	Bolivia
150	PAR	Paraguay
155	CHL	Chile
160	ARG	Argentina
165	URA	Uruguay
198	AFP	Alliance for Progress
199	OAS	Organization of American States

200	UNK	United Kingdom
205	IRE	Ireland
210	NTH	Netherlands
211	BEL	Belgium
212	LUX	Luxemburg
220	FRN	France
221	MOC	Monaco
223	LIC	Liechtenstein
225	SWZ	Switzerland
230	SPN	Spain
231	GER	Germany between WW1 and WW11
232	ANA	Andorra
235	POR	Portugal
255	GMW	Germany/Fed. Rep. (W. Ger.)
265	GME	Germany/Dem. Rep. (E. Ger.)
266	EBE	Berlin/East
267	WBE	Berlin/West
268	LAT	Latvia
269	EST	Estonia
270	LIT	Lithuania
271	PRV	Prussia
273	MTA	Malta
290	POL	Poland
291	GNL	Greenland
305	AUS	Austria
310	HUN	Hungary
315	CZE	Czechoslovakia
325	ITA	Italy
328	VAT	Vatican
331	SAN	San Marino
338	MLT	Malta
339	ALB	Albania
345	YUG	Yugoslavia
350	GRC	Greece
352	CYP	Cyprus
355	BUL	Bulgaria
360	RUM	Rumania
365	USR	USSR
375	FIN	Finland
380	SWD	Sweden
385	NOY	Norway
390	DEN	Denmark
393	CMN	Comecon
394	WAP	Warsaw Pact
395	ICE	Iceland
396	NAT	NATO
397	EEC	European Common Market
398	UNO	United Nations or any UN Organ.

400	CEN	Cento (Central Treaty Org.--Baghdad Pact)
401	LON	League of Nations
420	GAM	Gambia
432	MLI	Mali
433	SEN	Senegal
434	DAH	Dahomy
435	MAU	Mauritania
436	NIR	Niger
437	IVO	Ivory Coast
438	CUI	Guinea
439	UPP	Upper Volta
440	GUE	Equitorial Guinea
450	LBR	Liberia
451	SIE	Sierre Leone
452	GHA	Ghana
461	TOG	Togo
471	CAO	Cameroun
475	NIG	Nigeria
476	BIA	Biafra
481	GAB	Gabon
482	CGN	Central African Rep.
483	CHA	Chad
484	CON	Congo (Brazza)
490	COO	Congo (Kenshna)
500	UGA	Uganda
501	KEN	Kenya
510	TAZ	Tanzania
516	BUI	Burundi
517	RWA	Rwanda
520	SOM	Somalia
530	ETH	Ethiopia
551	ZAM	Zambia
552	RHO	Rhodesia
553	MAW	Malawi
560	USF	Union of South Africa
570	LES	Lesotho
571	BOT	Botswana
572	SWA	Swaziland
580	MAG	Malagasy
590	MAS	Mauritius
599	OAU	(Org. of African Unity)
600	MOR	Morocco
613	FAA	French Rule in Algeria--Pre-Independence of Algeria
614	ALF	Algerian Liberation Front
615	ALG	Algeria (After independence)
616	TUN	Tunisia
620	LBY	Libya
625	SUN	Sudan
630	IRN	Iran
640	TUR	Turkey
645	IRQ	Iraq

651	UAR	United Arab Rep. (Egypt)
652	SYR	Syria (Syrian Arab Rep.)
660	LEB	Lebanon
662	PAL	Palestine (Up to 1948)
663	JOR	Jordan
666	ISR	Israel
670	ADN	Aden
672	BAH	Bahrein
673	TRC	Trucial Coast
678	YEM	Yemen
680	JCG	Jewish Commando Groups
681	SYE	South Yemen
682	KRD	Kurdish Tribes
690	KUW	Kuwait
691	PGF	Persian Gulf
692	SAF	South Arabian Federation
693	ARA	Arabs (Arab States)
694	JEW	Jews
695	MIE	Middle East
696	OCS	Occupied Territories in ME
697	PLO	Arab Commando Groups
698	NOM	Muscat and Oman
699	ARL	Arab League
700	AFG	Afghanistan
710	CHN	China, People's Rep.
711	OVC	Overseas Chinese
712	MON	Mongolia
713	CHT	China, Republic of
720	HOK	Hong Kong
721	MAC	Macao
731	KON	Korea, North
732	KOS	Korea, South
740	JAP	Japan
750	IND	India
770	PAK	Pakistan
771	EPA	East Pakistan (Bengali Nation)
775	BUR	Burma
780	CEY	Ceylon
782	MAA	Maldives
790	NEP	Nepal
791	KAS	Kashmir
800	TAI	Thailand
811	CAM	Cambodia
812	LAO	Laos
813	LAP	Pathet Lao
816	VTN	Viet Nam, North
817	VTS	Viet Nam, South
818	VCG	Vietcong and NLF
820	MAL	Malaysia
830	SIN	Singapore
840	PHI	Philippines
850	INS	Indonesia

900	AUL	Australia
920	NEW	New Zealand
921	NAU	Nauru
990	WSM	Western Samoa
991	IBK	World Bank
992	SEO	SEATO (So. Asian Treaty Org.)
998	MLG	Any Multilateral Group
999	NSC	Not stated, other, unidentified

Source: Edward E. Azar, Conflict and Peace Data Bank: A Code Book
(Chapel Hill: University of North Carolina, December, 1971),
pp. 4-8.

APPENDIX B

THIRTEEN POINT SCALE: A DISCUSSION
OF THE MARKER CARDS

APPENDIX B
THIRTEEN POINT SCALE: A DISCUSSION
OF THE MARKER CARDS

1. Nations A and B merge to form a new nation-state.

This category refers to the state-of-affairs in which the participants give up their former status as independent (or sovereign) actors and acquire a new international status in the form of a single nation-state. It is the state-of-affairs in which the newly established decision-making center begins to make decisions binding on all the merged territory.

This category may include such events: A and B establish a union, form a union, unify, join a union, federate, amalgamate, or integrate.

2. Nations A and B establish a regional organization among Themselves.

This category refers to events which specifically indicate that a nation-state has allied with other nation-states by establishing and/or joining a regional (or an international) organization while retaining its formal independence. Examples of such regional and/or international organizations are: common markets (e.g., EEC); defense organizations (e.g., NATO, the Egyptian-Syrian Defense Pact); cultural-political organizations (e.g., The Arab League), etc.

It should be emphasized that the mere agreement to ally is not sufficient to scale events in this category. The event must specifically indicate that a nation-state has actually joined such a regional and/or international organization or alliance.

3. Nation A extends economic aid to Nation B.

This category refers to events which specifically indicate that a nation-state (or any other international actor) has actually given or consented to give economic aid and/or military aid to another nation-state (or any other international actor). This aid may include such assistance as participating in joint military maneuvers and extending military hardware and technical advice. It must be emphasized that such aid (or assistance) may be in the form of outright loans, grants and/or exchanges.

4. Nations A and B conclude a friendship agreement among themselves.

This category refers to events which specifically indicate that two or more nation-states (or other international actors) have actually concluded a cooperative agreement among themselves. Among the events which fall in this category are: the establishment of diplomatic relations; the exchange of war prisoners; the acceptance of cease-fire proposals; the reduction of trade tariffs; the suspension of economic boycotts; and the conclusion of cultural exchange treaties.

5. Nation A receives support for its internal and/or external policies.

This category includes events which specifically indicate that a nation-state's domestic and/or international policies or behaviors have received internal and/or external endorsement.

Among the events which may be included under this category are: votes of confidence by a legislative body; the legitimate

transfer of power within a nation-state; domestic demonstrations favoring a nation's public policies.

6. Nations A and B communicate regarding issues of mutual concern.

This category includes those events which specifically indicate that two or more nation-states (or other international actors) have begun communicating with one another. Among the events which may be included under this category are the following: visits by key decision-makers and/or official visitors' requests for international meetings; commencement of bilateral or multilateral discussions; issuance of joint communiques, invitations for state visitors; and explanations or comments (or the refusal to do so) on public policies and behavior of nation-states.

7. Nation A experiences limited internal political difficulties.

This category refers to those events which may indicate

- a. behaviors expressing negative affect toward a nation-state's public policies; and
- b. public actions which limit the mobility, rights, or activities of individuals.

Among these events are the following: legislative censure of a government's policies; resignation and/or dismissal of a cabinet or key public officials; devaluation of a nation's currency; dismissal of a legislative body by a president or his cabinet; banning of certain political parties; censorship of the mass media; dismissal of key military leaders; strikes; and antigovernment demonstrations.

8. Nation A makes a protest directed against Nation B.

This category includes events which indicate an increasing deterioration of relations between nation-states.

Among these events are the following: reject; veto; accuse; demand; criticize; blame; condemn; repudiate; denounce; object; complain; warn; threaten; halt negotiations; break diplomatic relations; arrest and sentence citizens of other nations, boycott; place in embargo; and expel personnel.

9. Nation A increases its military capabilities.

This category includes events which specifically demonstrate that a nation-state (or other international actor) is expanding its strength. Among the events which may be included are: mobilize armed forces; increase defense budget; initiate universal military training; acquire additional military equipment; and engage in military maneuvers.

10. Nation A encounters domestic politico-military violence.

This category refers to those events in which a nation-state (or another international actor) experiences severe internal disorders. Among the events which fall in this category are: enactment of martial law; riots; coups; and political assassination.

11. Nations A initiates subversion in Nation B.

This category refers to the initiation of support of subversive activities by one nation-state (or another international actor) toward another nation-state. Among the events which may fall in this category are: sabotage of strategic goods; foreign support of anti-government guerrilla forces; and reconnaissance activity and small scale and/or very limited border clashes.

12. Nations A and B engage in limited war activities.

This category refers to the participation in limited military hostile actions by a nation-state (or other international actors)

toward another nation-state. Among the events which may be included in this category are: stopping ships at sea; executing prisoners of war; and initiating bombing sorties.

13. Nation A engages in all-out war against Nation B.

This category refers to a nation-state's declaration and/or initiation of either all-out conventional or nuclear warfare.

Source: Edward E. Azar, Stanley H. Cohen, Thomas O. Jukam, and James M. McCormick, "Making and Measuring the International Event as a Unit of Analysis," in Edward E. Azar, Richard A. Brody, and Charles A. McClelland (eds.), International Events Interaction Analysis: Some Research Considerations (Beverly Hills: Sage Publications Inc., 1972), pp. 67-70. By permission of the Publisher, Sage Publications, Inc.

